

THE EFFECTS OF SENSATIONAL LANGUAGE IN NEWS
ON MEMORY AND ATTITUDES

by

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ABSTRACT

The present study investigated whether news presented in a sensational style – using language with higher emotional arousal—influenced the readers’ attitudes about the article topic, and their memory and comprehension of the factual information, compared to news presented in a less arousing style. Participants (N = 127) read a sensational or calm version of two online news articles. The dependent variables were a composite Knowledge score, comprised of comprehension and recognition memory scores of the article’s factual information, and Attitude Change scores. No differences in the dependent variables were found as a function of the arousal manipulation. Robust interaction effects were found between the stories and the order in which they were read.

I. INTRODUCTION

Dating back almost 200 years there has been fear and controversy surrounding a perceived decline in journalistic standards (Grabe, Lang, & Zhao, 2003; Plasser, 2005), synonymously referred to as the *tabloidization* of the news, increasing *infotainment*, *sensationalization*, and a *softening* of news media (Esser, 1999; Reinemann, Stanyer, Scherr, & Legnante, 2011). For instance, Patterson (2000) proposed that the tabloidization of the news is exacerbating a decline in news audiences, and more importantly, “weakening the foundation of democracy by diminishing the public’s information about public affairs” (p. 2). The present study interprets the last phrase in Patterson’s claim as *tabloidization of the news is impairing the public’s objective knowledge of public affairs reported by the news*. It is important to investigate this claim as it implies cognitive and attitudinal effects on the audience that may disrupt the civic role of journalism—to enlighten the people of democratic societies (Uribe & Gunter, 2007). The first step is to define what is meant by the term *tabloidization*, then to describe its effects on the audience.

Defining Tabloidization and Sensationalization

Tabloidization. The phenomenon of increasing tabloidization of news continues to be of great concern in the journalistic field (Esser, 1999; Harris, 2006; Patterson, 2000). Tabloidization was defined by Esser (1999) based on Howard Kurtz’s book *Media Circus—The trouble with America’s Newspapers* as a decrease in hard news such as politics and economics and an increase in soft news such as sleaze, scandal, sensation and entertainment. As Bell (1991) pointed out though, the boundaries between what qualifies news as either *hard* or *soft* are unclear in the literature, especially in terms of scientific

operational definitions. Reinemann's et al. (2011) review helps to define this distinction between hard and soft news as changes along five distinct dimensions: the topic of the story, the focus of the story (frame), the style of the writing (tone), the purpose of the story (informative vs. entertainment), and characteristics of the story's production process (e.g. timeliness).

Reinemann et al. (2011) argued that changes among any of those dimensions may increase the "softness" of a news story. For example, in a similar vein to Esser's (1999) definition, stories whose topics are about politics, economics and finance are usually regarded as hard news in general, while stories about sports, celebrities, crime, and scandal are considered to be soft news. However, going beyond Esser's definition, Reinemann et al. (2011) argued the relevance of the discourse focus in making a news story either more hard or soft. For example, stories which report an event using a public or policy frame, and provide historical context are using a more hard news focus; while stories which use a private or human interest frame, and report the event out of context are using a more soft news focus. Furthermore, Reinemann et al. (2011) and Patterson (2000) argued that a soft style uses more commentary rather than objective facts, has more of a reliance on informal and colloquial vocabulary, and uses words that give an exaggeratedly urgent tone to the story—presenting events as earthshaking, unsettling, or remarkable. Thus, according to Reinemann et al. (2011), tabloidization is not only the increasing frequency of soft topics in the news, as Esser (1999) had defined it, but is also the increasing use of these other soft news characteristics (focus, and style) within news traditionally considered to be hard. For instance, a news story about an economic

downturn (hard news topic) may become soft if focuses on the consequences for an individual business owner, or if it described the downturn as an “imminent crisis!”.

This definition of tabloidization supports the implication of Patterson’s (2000) claim that there are diminishing standards of quality in hard news. Furthermore, research conducted with political journalists in American and European markets have verified these perceived shifts in writing quality standards, and journalistic cultures (Esser, 1999; Plasser, 2005). The proposed reason for the increasing use of soft news characteristics in news media is that they capture the audience’s attention through eliciting emotionally arousing responses (Grabe, et al., 2003; Kleemans & Vettehen, 2009; Vettehen, Koos, & Peeters, 2008). Once again, these findings support Patterson’s (2000) claim that tabloidization of the news may influence the audience and have disadvantageous secondary consequences on their understanding of the story. In order to study the effects of tabloidization, the present study will focus on the soft news characteristics as described by Reinemann’s et al. (2011) definition, specifically the writing style, and their consequences for the audience’s attitudes and memory of the story information.

Sensationalization. As mentioned above, Reinemann et al. (2011) and Patterson (2000) distinguished soft from hard news by the *style* of the story. They define a *soft news style* as the use of commentary rather than objective facts, the reliance on informal and colloquial vocabulary, and the use of words that give an exaggeratedly urgent or dramatic tone to the story. This dramatic style of news presentation has come to be called *sensational* news (Kleemans & Vettehen, 2009; Reinemann et al., 2011). Thus, hard news is formal, objective, and calm in the style of its language, and becomes more soft (or sensational) with increasing use of language that is emotionally arousing, among

other elements (also see “intense language”, Hamilton, Hunter, & Burgoon, 1990). Much work has been done on qualifying affective meanings of words, such as Warriner, Kuperman, & Brysbaert’s (2013) ratings of nearly 14,000 English words for valence, arousal, and dominance—an extension of Bradley and Lang’s (1999) ANEW database, and based off of Osgood, Suci, and Tannenbaum’s (1957) theory of emotion. The valence rating of a word represents the pleasantness of emotions invoked by it, going from *unhappy* to *happy*. The dominance rating of a word is the extent to which the word denotes an object as being weak/submissive or strong/dominant. The arousal rating of a word represents the elicitation of either positive or negative emotional and physiological excitement.

Considering the above definitions of Tabloidization and Sensationalization, Patterson’s (2000) claim implies that the use of emotionally arousing (or sensational) language in the news, as an extension of tabloidization, has disadvantageous influences on the audience’s attitudes and cognitive processing, such as memory and comprehension. Therefore, the present study examined the psychological consequences of using emotionally arousing language in news articles—a medium whose primary purpose is to be an objective and informative medium.

Effects of Arousal on Attitudes

Emotional language use has proved to be an important factor in researching attitudes and attitude change (see Forgas, 2008 for review). Historic work studying the effects of word emotionality on attitudes found that students’ evaluations of authority figures were systematically influenced by the language used to describe the authorities (Eiser & Mark, 1979; Eiser, 1990). Specifically, when students were required to

incorporate biased language in an essay, implying a pro- or anti-authority position, measures of their attitudes towards authority after the essay were significantly influenced in accordance with the bias, compared to their attitudes before the essay, as well as compared to control groups.

Moreover, in information processing approaches to attitude change, such as the Petty & Cacioppo Elaboration Likelihood Model (1986) and Bohner's (2008) connectionist model, emotional language has been commonly referred to as a peripheral cue, or as evidence indicating the message's argument strength (for review, see Bohner, Erb, & Siebler, 2008). In both of the aforementioned models, emotional language serves as an indicator to a message recipient that the message is urgent, and therefore the recipient may be more likely to heed the message.

Additionally, Hamilton et al. (1990) found supporting evidence for the 7th axiom of Bradac, Bowers, and Courtright's (1979) Axiomatic Theory of Language Intensity which states: language intensity and initial receiver agreement with the message interact to produce either attitude reinforcement or change in such a way that language intensity enhances the effect of attitudinally congruent messages, or inhibits the effect of attitudinally discrepant messages. Specifically, Hamilton et al. (1990) concluded that the effect of message discrepancy on attitude change was moderated by language intensity and perceived source likability; which verified the argument that intense language inhibits the effect of attitudinally discrepant messages.

Based on these works, to analyze the influence of arousing language, measures of the readers' attitude toward the subject of a news article should be measured both before and after presentation of the article. Furthermore, a change in attitudes—more

specifically, an amplification— will occur when using emotionally arousing language only if the article presents its topic in a manner congruent with the audiences' preconceived attitudes. In that case, changes in the audiences' attitudes are expected to be higher for a sensational article than would a less sensational one.

In considering news articles, the above functions of emotional language in the psychological literature provide evidence that an arousing writing style moderates audience attitudes regarding the topic of an article. However, while the literature indicates a significant influence of arousing words on how peoples' attitudes change, no research was found that systematically analyzed the psychological consequences of emotionally arousing language in news stories (e.g. sensationalization) on audience attitudes of the article topic in particular. Thus, the implication in Patterson's (2000) claim, that sensational language use in news alters the reader's objectivity, remains an outstanding question. The current study attempted to address this question. As far as how sensational language may have other effects on reader's knowledge of news, we turned to the cognitive psychology and psycholinguistic literature on memory and discourse comprehension.

Effects of Arousal on Memory

The general consensus in psychological literature is that emotional material—and emotionally arousing material in particular— facilitates cognitive processing. Dolan's (2002), and Hamann's (2001) reviews provide consistent evidence for how amygdala activity for emotional stimuli co-occurs with hippocampal activity—and brain region heavily associated with memory performance.

Kensinger and Corkin (2004) posited there are two distinct neural pathways in which emotional valence (positivity/negativity) and emotional arousal each enhance recognition memory. Specifically, valenced, non-arousing stimulus words (mostly negative) showed increased activation in an area of the brain associated with controlled rehearsal, and elaborated processing of the stimuli—the prefrontal cortex. On the other hand, arousing stimulus words (again mostly negative) showed activation in an area of the brain associated with attention allocation—the amygdala. Additionally, both valenced and arousing words showed co-activation with the hippocampus, a structure highly related to memory. The results from a divided-attention recognition memory task of the stimuli words showed a direct relationship between amygdala (de)activation and memory (deficit) benefits, even when attentional resources were taxed. Increases in memory of the valenced, non-arousing words occurred only when participant attention was not divided by the distractor task. The authors concluded that memory benefits for arousing words happen automatically, even with taxed resources.

Other behavioral studies researching memory performance of emotional words have often analyzed word valence as the independent variable, while disregarding the interrelated contribution of emotional arousal. For instance, in a lexical decision study, Kousta, Vinson, and Vigliocco (2009) found increased processing advantage for both negatively and positively valenced words compare to neutral words. In their conclusions the authors recognized that their findings could also be attributed in part to the arousal of the stimuli words, as the valenced words were also significantly more arousing than the neutral words. The same results were found in Inaba, Nomura, and Ohira's (2005) event-related potentials study. In an attempt to use a psychophysiological measure of

emotionality, these researchers found strong, late (400-700 ms) ERPs were associated with emotional stimulus words—both positively and negatively valenced. Additionally, increases in emotionality were associated with increased recognition memory of those words. However, these results were once again confounded with the arousal of the stimulus words. In a different study, Zimmerman and Kelly (2010) found greater recognition memory for positively valenced, arousing words compared to neutral and arousing negative words. But in a cued recall task, both positively and negatively valenced arousing words were remembered better than neutral words.

These studies show that the psychological literature generally associates increases in valence and arousal with increases in memory performance. A consistent theme among the above research is a focus on word valence, and disregard for word arousal. Fewer studies were found in the psychological literature which focused primarily on how arousal may influence cognitive process such as memory. Additionally, the research described above only analyzed the cognitive processing effects of the individual words, in and of themselves. While facilitating effect are apparent for emotional words, it remains to be seen whether the same effects will occur for secondary information—that which is not directly manipulated, but rather is associated with the arousing terms. This outstanding question in the psychological literature relates back to Patterson's (2000) claim that factual information may be influenced by surrounding language. To help gain theoretical grounding for this question, the current study turned to the Mass Communication literature.

The most analogous work to the paradigm described above comes from research studying television news. Research in this area has shown that presenting television news

in a sensational style increases the audience's attention, and emotional and physiological arousal in a similar manner to arousing words. For example, Vettehen, Koos, & Peeters (2008) showed that increased appearance of sensational features in television news stories was directly related to emotional arousal elicited by the stories, using self-report measures. Similarly, Grabe et al. (2003) found that news stories with sensational content elicited increases in attention (measured by decreases in heart rate) and arousal (measured by galvanic skin response). These results indicated that news stories which had been described as sensational in their language did indeed possess greater emotional and physiological arousal levels than did calmer stories.

In studying the effects of sensational news content on cognitive processing, Grabe et al. (2003) found that, while news with arousing content showed an increase in story recognition rates, there was a decrease in recall of the factual information of the story, compared to calm news. Grabe et al. (2003) took a limited capacity of information processing approach (Kleemans & Vettehen, 2009) when studying the effects of television content on the cognitive processing and evaluative responses of the viewers. Specifically, they had participants (N = 45) view 12 news stories which were categorized as either arousing or calm in content based on a content analysis. They measured attention by monitoring heart rate, physiological arousal by self-report and skin conductance, and memory by cued and free recall tests. After viewing all the stories the participants completed a forced choice recognition test, and a delayed recall test two days later. They found that sensational content did indeed increase arousal and attention, and influenced memory of the content. Specifically, in the delayed recall test participants who saw sensational content remembered less factual information than did participants who

viewed calm content. The researchers attributed these results to an overload of cognitive resources, as per the Limited Capacity Model of Mediated Messages (Kleemans & Vettehen, 2009).

Altogether, there is mixed evidence for the cognitive effects of arousing language. As previously described, psychological research on emotional words generally shows bolstered memory and increased cognitive processing of those words, as a function of their emotional valence and arousal. On the other hand, in studying emotionally arousing messages, some studies in the Mass Communication literature have shown that information processing of secondary information in a story was impaired when presented with emotionally arousing material (for further review see Konijn, 2013). These latter findings support Patterson's (2000) claim that arousing content hinders the audience's knowledge of the factual information of the story. However, it remains to be seen whether these results will generalize to news in print or online mediums.

Effects of Arousal on Story Comprehension

The above work defined knowledge in terms of memory for specific pieces of information or verbatim words. Instead, it may be the case that "knowledge" in Patterson's (2000) claim is better defined in terms of a reader's understanding of a story. The current psycholinguistic literature describes models of discourse comprehension as containing three distinct levels of representation in memory—the surface code, the textbase, and the situation model (for reviews, see Traxler, 2012; and Willingham, 2007). The surface code is a mental representation of the verbatim wording and syntax of the discourse. The textbase is a mental representation of the ideas of the discourse in a paraphrase structure (referred to as "propositions")—not maintaining the exact wording

of the discourse. The situation model is a deeper mental representation of the more global context of the discourse—integrating prior world knowledge, and inferences from the text to create a mental image of what is happening, and an understanding of the larger meaning of those events. According to the literature, the surface code information is used primarily in working memory in order to create a textbase understanding of events. The textbase level of comprehension is then the primary compiled and integrated into the mental situation model. Thus, in recalling information from a text, readers typically rely more on textbase and situation model levels of representation more so than the surface code of the discourse (Traxler, 2012; Willingham, 2007).

The fact that readers generally have poor memory for verbatim information appears to be especially true for facts presented in a news article. In a cornerstone study, Zwaan (1994) showed that when readers are given the same text in the context of different genres (i.e. presented as either a literary story, or as a news article), they rely more heavily on different levels of representation for that discourse. Specifically, when the discourse was presented as a news story participants had shorter reading times, poorer memory of surface code information, and better memory of situation model information compared to performance in the literary story context. The authors concluded that readers use the genre of a text as a heuristic to activate a specific strategy for discourse comprehension. For news articles in particular, readers were less concerned about verbatim information and concentrate more on constructing the situation model, or global understanding of the meaning within the discourse.

Some empirical evidence found in the literature on false memories suggests that arousing language use may influence discourse comprehension. Specifically, in a study

by Loftus and Palmer (1974) participants were shown a video clip of a car accident, and were asked to estimate how fast the car was moving when it hit/smashed/collided/bumped/contacted into the object. Using the more violent verbs in the question showed increases in the participant's reported speed of the car. Furthermore, on a delayed recall task, participants in the violent-verb conditions mistakenly reported they had seen broken glass in the video. These findings provide evidence that altering descriptive or interpretative language to change emotional arousal can have drastic effects on someone's understanding of events (for review, see Willingham, 2007). No further research was found in examining this phenomenon in the context of news media; a possible implication of Patterson's (2000) claim that sensationalization alters the reader's comprehension of the factual information in the article.

In all, studies suggest that a sensational language style plays an important role in influencing audience attitudes regarding the topic of a news story. Additionally, the literature concerning text comprehension shows that readers generally have poor memory for verbatim facts. However, their mental situation models of a discourse have shown to be influenced by semantic differences in word choice. Furthermore, despite the general consensus in the literature that arousal facilitates memory, other studies suggests that news using emotionally arousing content in the auxiliary, descriptive elements of an article may actually hinder audience memory for the factual information. These conclusions do not provide a clear answer to Patterson's (2000) claim.

Moreover, there are outstanding questions left by the literature. Although there has been substantial work done for television news, little inquiry has been made into print and online news media despite the relevance of these mediums as sources of news

(Kleemans & Vettehen, 2009). Are audience attitudes moderated by arousing language in the context of news articles, as suggested by the literature? Do the results from research that analyzed the effects of sensational television news on memory and attitudes translate to other news mediums (i.e. print or online articles)? Psychophysiological studies showed bolstered memory and cognitive processing for arousing and valenced words, but what about their use as descriptors of neutral facts? What implications are there if Patterson's (2000) claim is supported—that sensational language influences the reader's attitudes about the article topic, and hinders their memory of the factual information within the article?

Purpose of the Current Study and Hypotheses

As Kleemans and Vettehen (2009) point out in their review, the consequences of sensationalism for the informative function of news are not fully disentangled in past research. In particular, sensational style, as a component of tabloidization, has not been adequately operationalized as phenomena in the psychological literature (Konijn, 2013). By pulling from experimental studies found in the Mass Communication literature, this thesis contributed an operational definition of the sensationalization, and tested its predictive validity on participant knowledge—i.e. recognition memory of facts, and story comprehension—and attitude change. This research was important to undertake because it adds clarity to the underlying psychological processes and mechanisms of news tabloidization by analyzing the specific effects of sensational news style on an individual's cognitive processing and attitudinal responses. Thus, the purpose of the present study was to investigate whether news presented in a sensational style, as a facet of tabloidization, would influence the readers' attitudes about the article topic, their

comprehension of the article, and recognition memory of the factual information in the article. Furthermore, the research has practical applications. The information gained from this work may be of particular interest to journalists who want to attract and maintain the attention of the audience, but also inform the public at the same time (Kleemans & Vettehen, 2009).

Hypotheses. The primary research question of this study was whether sensational language use in a news article—defined by the emotional arousal ratings of the manipulated words (Warriner et al., 2013)—would influence the readers’ attitudes about the article topic, their comprehension of the article, and their memory of the factual information therein, compared to a less sensational version of the same article.

In regards to the participants’ attitudes, we hypothesized that participants who read the sensational version of each article would show greater Attitude Change scores on the Semantic Differential scale than would those who read the less sensational version of each article.

In regards to article comprehension and recognition memory for factual information presented in the article, in line with the general consensus of psycholinguistic literature, we hypothesized that participants who read the sensational version of each article would perform significantly better on tests of story comprehension, as well as recognition memory of verbatim information than would participants who read the less sensational articles.

II. METHOD

Participants and Procedure

Participants were comprised of Texas State University students in participating psychology classes—either for course credit through the Texas State University online human subjects pool (SONA), or for extra credit via cooperating professors. During recruitment, participants were provided a study overview and then scheduled an appointment via email to meet a researcher at a computer lab on campus. Upon arrival to their scheduled appointment, recruited participants were given a consent form to sign if they agreed to participate. Once consented, the participant was directed to a computer station in the lab with a survey already open on the screen. The computer stations had cubicle-like dividing walls between the desks, and a standard desktop keyboard, mouse and monitor about 18 inches from the front edge of the desk. When seated the participants were told the study would take approximately 30 to 40 minutes to complete, and would include a debriefing screen at the end. For instructions, participants were asked to “read two online news articles, and answer a series of questions about each of them”. Participants received compensation after completing the study in the form of course credit—in the case of SONA subject pool participants—or extra credit allocated as per the guidelines of their cooperating professor.

Materials

In this experiment, participants were asked to read and evaluate two online news articles using the online survey program *Qualtrics*. The articles adapted for this study were, “New York is Removing Over 400 Children from 2 Homeless Shelters” by Andrea Elliott and Rebecca Ruiz (“Shelters”), and “Militants Attack Presidential Palace in

Somalia” by Mohammed Ibrahim and Nicholas Kulish (“Militants”) from the Feb. 21, 2014 edition of the *New York Times*. As per Bradac’s et al. (1979) aforementioned axiom of attitude change regarding arousing language, these two particular stories were chosen because their topics were discussed in a manner that seemed congruent with audience preconceived attitudes.

The two stimuli versions of each article—Shelters/Militants High/Low Arousal—were created by first removing sensitive material (i.e. portions of text about sexual violence), and subsequent editing to best match the length of the two articles—word count for “Shelters” was 903, “Militants” was 833. The primary change between the High and Low Arousal versions was done by manipulating 40 words from the descriptive frame elements of the article into synonymous terms differing in their ratings of emotional arousal. Thus, by using the Norms of Valence, Arousal, and Dominance for 13,915 English Lemmas database (Warriner et al., 2013), one version of each article was defined as more *sensational* by using manipulated terms with significantly higher ratings of Arousal, after controlling for the effects of the Valence ratings (see Appendix A for the “Shelters” article, and Appendix B for the “Militants” article; the manipulated terms are emphasized in bold with the High-Arousal terms in parentheses). Two one-way analyses of covariance (ANCOVAs) were performed—one for each article—to analyze Arousal ratings between the Low-Arousal and High-Arousal article versions, after controlling for Valence ratings. For the “Shelters” articles, the Low-Arousal version was indeed significantly lower in Arousal ratings ($M = 3.66$, $SD = .63$) than the High-Arousal version ($M = 5.08$, $SD = .75$), $F(1, 77) = 73.88$, $p < .000$. Similarly, the “Militants” Low-

Arousal version was significantly lower in Arousal ratings ($M = 4.31$, $SD = .95$) than the High-Arousal version ($M = 5.75$, $SD = .94$), $F(1, 77) = 47.64$, $p < .000$.

Unbeknownst to them, the participants were assigned to read either the sensational (High Arousal) or calm (Low Arousal) versions of the two articles via randomization programming within *Qualtrics*; the same randomization was used to counterbalance article presentation order. Thus, the design of this study was counterbalanced and double-blind. To test how the primary manipulation between arousal conditions was perceived by the participants, they were asked by a single item after reading each article to rate the arousal of the article's language on a 7-point scale from "Extremely Calm" to "Extremely Dramatic". Another similar item asked the participants to rate the valence of the article's language from "Extremely Negative" to "Extremely Positive". The dependent variables in this experiment were the change in participants' attitude strength regarding the story topics from pre to post measures, and their story comprehension and recognition memory for the factual information of the articles, which was compared using a between subjects design.

Attitudes Measure

Attitude strength was measured using the Osgood Semantic Differential Scale, before and after presentation of the article. Osgood's scale is an established measure of global evaluative attitudes (Shaw & Wright, 1967), and can be applied without developmental work (Schwarz, 2008). According to Shaw and Wright's (1967) description, the Osgood Semantic Differential scale (1957) was developed to reflect three dimensions of an object's meaning to the individual: an evaluative factor, a potency factor, and an activity factor. More specifically, the evaluative factor represents a

measure of the direction and intensity of an individual's attitude regarding the object being rated. Osgood et al. (1957) originally reported test-retest reliability coefficients for the entire scale ranging from .83 to .97; and evidence for concurrent validity by correlation coefficients with Thurstone and Guttman scales ranging from .74 to .82.

The adapted scale used in this study (see Appendix C) consisted of 16 items of bipolar adjective pairs—14 from the original scale, and 2 additional items (un/important, and uninteresting) to judge participant attention to the article. Each item, presented the adjectives as poles on either side of a line, with a slider positioned in the middle labeled “neutral”. The participant was asked to rate the topic of the article (homeless shelter living conditions, and militant activity in Africa) by moving the slider from the neutral position towards one of the adjectives to the degree that best described their evaluation. The positive and negative poles were counterbalanced between items to encourage diligent responses. *Qualtrics* scored the items on a scale from -50 to 50, with the slider starting at 0. The greater distance the slider was moved from neutral towards an adjective (approaching +/- 50) represented a more extreme response in concordance with that adjective. According to theory, composite scores of the pre- and post-article measures should contain a primary evaluative factor to be interpreted as the individual's attitude regarding the article topic. As per Bradac's et al. (1979) attitude axiom, an attitudinal change is expected from the pre-article measure to the post-article measure of the individual's attitude regarding the article topic (a.k.a Attitude Change Score). However, the effect of the arousal manipulation to the article was operationally defined a significant difference between the Attitude Change Scores of the high-arousal compared to the low-arousal version of each article. Differences in how attitudes change as a function of

article language arousal would provide supporting evidence to Patterson's (2000) claim that tabloidization influences the reader's objectivity regarding the story topic.

Knowledge Measures

Memory for the verbatim factual information, or surface code processing (Willingham, 2007), of the article was measured using a recognition questionnaire of 20 multiple choice items developed for each story (see Appendix D). Items and answer choices for the Shelters and Militants articles were designed by the researcher to test the same kind of information in the same order between articles. A frequency of correct answers to these scales represented the participant's recognition memory of the article's factual information.

Similarly, additional questionnaires of 10 multiple choice items were developed for each story (see Appendix E) to test the participants for story comprehension, or textbase and situation model representations for the article information (Willingham, 2007). Again, the comprehension tests for each story were developed in tandem in order to test each story similarly, to the researcher's best effort.

While performances on these two tests are qualitatively distinct in the mental representations they test (recognition memory as opposed to story comprehension), for this particular study they more meaningfully reflected the participant's overall knowledge of the two articles when they were used together than when used in isolation. Thus, in comparing arousal condition averages, significant differences in performances on these two tests represented the effect of the arousal manipulation to the language of the articles. Furthermore differences in performance on these tests as a function of article language

arousal would provide supporting evidence to Patterson's (2000) claim that tabloidization influences the reader's knowledge of the story's factual information.

III. RESULTS

Participants

One hundred and thirty three Texas State University students participated in the study. The sample size was determined based a power analysis conducted at a standardized power of .80, for a medium expected effect size of .50 at an alpha level of .05 (Cohen, 1992). After excluding 6 respondents (five did not completely answer test questions appropriately, and one had previously read stimuli news articles), the sample size of usable respondents was 127. Sample demographics roughly reflected that of students enrolled in Texas State University Psychology classes—63% female (n = 80), 36% male (n = 46); predominately Caucasian (50%, n = 60), then Hispanic or Latino (35%, n = 44); with an average age of M = 21.04 years, SD = 4.71.

Preliminary Analyses

Validity of Constructs. Exploratory factor analyses were performed on the attitudes, comprehension and recognition variables. First, a factor analysis using a principle Axis extraction with promax rotation and kappa of 4 was performed on the attitude measures to verify the theoretical 3-factor structure—Evaluative, Potency, and Activity factors. The data revealed a two factor structure, which was consistent between stories and across measure intervals. The first factor was theoretically consistent with the evaluative factor in the literature and included the items “bad/good”, “un/pleasant”, “negative/positive”, “un/desirable”, and “cruel/kind”. This primary evaluative factor was highly reliable across stories and measure intervals (Shelters Pre, $\alpha = .86$; Shelters Post, $\alpha = .85$; Militants Pre, $\alpha = .90$; Militants Post, $\alpha = .86$) and was used to compute the attitude change scores—the dependent variable in the remaining analyses. The second factor was

interpreted as a descriptive factor, and included the items “strong/weak”, “slow/fast”, and “small/large” did not prove reliable across stories and measures. The reliabilities for this factor ranged from $\alpha = .60$ to $\alpha = .85$. For the purpose of this study, only the evaluative attitude factor was used in the analyses.

Factor analyses using a principle Axis extraction with promax rotation and kappa of 4 revealed simple one-factor structures for each of the comprehension and recognition scales. Initial reliability analyses showed that the comprehension questions for the Shelters ($\alpha = .13$) and Militants ($\alpha = .54$) stories were not reliable. Additionally, the recognition questions sets for Shelters ($\alpha = .64$) and Militants ($\alpha = .69$) were only mildly reliable. However, when the recognition and comprehension questions were combined and unreliable questions removed the reliabilities of the composite scores (Shelters $\alpha = .69$, Militants $\alpha = .77$) reached stronger acceptability. Additionally, factor analyses for both stories using the above parameters revealed simple one-factor structures for the combined questions sets. Thus, this composite Knowledge Score was used to test the hypothesis that participants who view the High Arousal versions of each article would perform better on story Knowledge than would those who received the Low Arousal versions of each story.

Manipulation Checks. Independent t tests were performed to test if any differences existed between the high and low arousal Militant and Shelter versions on two manipulation check items measuring arousal and valence. Levene’s tests showed unequal variance for the Arousal ratings of the Shelters article, $F(1, 125) = 7.36, p = .008$; all other measures showed equal variances: Militants Arousal ratings, $F(1, 125) = .27, p = .603$; Shelters Valence ratings, $F(1, 125) = .006, p = .937$; Militants Valence

ratings, $F(1, 125) = 2.72, p = .102$. Owing to the violation of the assumption of homogeneity, the t test for the Shelters ratings of Arousal was computed assuming unequal variances. No significant differences were detected in the participant's ratings of either the article language arousal or valence between the high and low arousal versions of the two stories:

- a. Arousal ratings for Shelters-Low ($M = .03, SD = 1.05$) X Shelters-High ($M = .17, SD = 1.34$), $t(118) = -.67, p = .504$
- b. Arousal ratings for Militants-Low ($M = .45, SD = 1.34$) X Militants-High ($M = .46, SD = 1.22$), $t(125) = -.03, p = .975$
- c. Valence ratings for Shelters-Low ($M = -.83, SD = 1.33$) X Shelters-High ($M = -.79, SD = 1.37$), $t(125) = -.14, p = .886$
- d. Valence ratings for Militants-Low ($M = -.95, SD = 1.08$) X Militants-High ($M = -1.13, SD = 1.26$), $t(125) = .84, p = .405$

Pre-Article Measures of Attitudes. It was necessary to verify no preexisting differences were apparent between participants at the Pre-Article measures of attitudes when each article was read first. A 2(High Arousal vs. Low Arousal Condition) x 2(Shelters vs. Militants Article) factorial analysis of variance (ANOVA) was performed on the scores of the articles seen first by participants. Levene's test of equality of variances showed no violations of the assumption of homogeneity, $F(3, 123) = 1.0, p = .397$. No significant differences were detected between the scores for the High or Low Arousal Conditions, $F(1, 123) = .38, p = .541$; or between the two Articles, $F(1, 123) = .16, p = .848$.

Tests of Hypotheses

In regards to the participants' attitudes, we hypothesized that participants who read the sensational version of each article would show greater differences in Attitude Change Scores than would participants who read the less sensational versions of the articles. The dependent variable—the Attitude Change Score—for each participant was calculated by subtracting the composite score of the evaluative factor at the pre-article measure from the post-article measure. Then, a 2(High Arousal vs. Low Arousal Condition) x 2(Shelters vs. Militants Story) x 2(Article Order) mixed factorial ANOVA with repeated measures was performed on the Attitude Change Scores. Box's M test of covariance matrices revealed the assumption of homoscedasticity (equal variances) to hold true, $F(9, 146,360) = 1.08, p = .372$. The results showed no significant main effects for the Arousal Condition factor. However, a significant interaction effect occurred between the Story and Order factors, $F(1, 123) = 11.13, p = .001$.

Simple main effect analyses were recommended in order to better describe the significant differences due to order effects. A 2(Story) X 2(Order) ANOVA was performed on the Attitude Change scores, using the estimated marginal means from the omnibus analysis (see Table 1). The results revealed that while there was no difference in Change Scores between the two stories when the Militants articles were read before ($M = -15.85, SD = 21.95$) the Shelters articles ($M = -10.75, SD = 22.86$), $F(1, 123) = 1.71, p = .194$, there was a significant difference when the articles were read in the reversed order. Specifically, the Militants articles showed significantly *reduced* Change Scores when read after ($M = -7.65, SD = 17.68$) the Shelters articles ($M = -20.08, SD = 22.73$), $F(1, 123) = 15.52, p = .001$. Furthermore, in comparing Story scores between Orders, a given

article read first showed greater Change Scores than when read second—Shelters Change Scores when read first were significantly more negative than when read second, $F(1, 123) = 5.39, p = .022$; and Militants Change Scores when read first were significantly more negative than when read second, $F(1, 123) = 5.25, p = .024$.

Table 1
Mean Attitude Change Scores for Stories Between Orders

Order	Story	
	Shelters	Militants
Read First	-20.08 (22.73)	-15.85 (21.95)
Read Second	-10.75 (22.86)	-7.65 (17.68)

Note. Standard Deviations appear in parentheses below means.

In regards to the participant’s Knowledge of the two stories, we hypothesized that participants who read the sensational version of each article would have significantly higher composite Knowledge Scores than would participants who read the less sensational articles. To test this hypothesis a 2(High Arousal vs. Low Arousal) x 2(Shelters vs. Militants Story) x 2 (Order) mixed factorial ANOVA with repeated measures was performed on the composite Knowledge Scores. Box’s M test showed no violations of the assumption of homoscedasticity, $F(9, 146,360) = .21, p = .993$. While there was no main effect of the Arousal Condition factor, the results showed two distinct interaction effects. First, there was an interaction effect between Story and Arousal Conditions factors, $F(1, 123) = 5.71, p = .018$, and between Story and Order factors, $F(1, 123) = 16.32, p < .001$.

Two simple main effect analyses were performed in order to describe the significant differences within the above order effects—a 2(Story) X 2(Arousal Condition)

ANOVA, and a 2(Story) X 2(Order) ANOVA on Knowledge Scores using the estimated marginal means from the omnibus analysis.

The results from the 2(Story) X 2(Arousal Condition) ANOVA showed that the only significant difference appeared between the two stories within the High Arousal Condition (see Table 2). Specifically, the Militants High-Arousal article had significantly higher Knowledge Scores ($M = .64, SD = .16$) than did the High Arousal Shelters article ($M = .59, SD = .14$), $F(1, 123) = 6.03, p = .015$. No differences were apparent between the Low Arousal versions of the articles. Additionally, no significant differences were found between the Low and High Arousal Conditions both the Shelters and Militants articles.

Table 2
Mean Knowledge Scores for Stories Between Arousal Conditions

Order	Story	
	Shelters	Militants
Low Arousal	.63 (.14)	.61 (.16)
High Arousal	.59 (.14)	.64 (.16)

Note. Standard Deviations appear in parentheses below means.

The results from the 2(Story) X 2(Order) ANOVA showed that the Knowledge Scores for articles read second were significantly better than for articles read first (see Table 3). Thus, the Shelters articles when read second ($M = .65, SD = .15$) had better scores than did the Militants articles when read first ($M = .61, SD = .17$), $F(1, 123) = 3.95, p = .049$; and likewise, the Militants articles when read second ($M = .64, SD = .15$) had better scores than did the Shelters articles when read first ($M = .58, SD = .14$), $F(1, 123) = 14.65, p < .001$. Knowledge for the Shelters articles was better when read second

than when read first, $F(1, 123) = 7.54, p = .007$; the Militants articles did not show significant differences in Knowledge Scores between orders.

Table 3
Mean Knowledge Scores for Stories Between Orders

Order	Story	
	Shelters	Militants
Read First	.58 (.14)	.61 (.17)
Read Second	.65 (.15)	.64 (.15)

Note. Standard Deviations appear in parentheses below means.

Exploratory Analyses

Attitude Order Effects. Due to the puzzling results of how Attitude Change Scores were smaller for articles read second, we attempted to explore how participant's preconceived attitudes for the articles read second might have been influenced by the articles read first. Thus, the presentation order of the articles was included as a factor in the analysis of the Pre-Article Attitudes measures. A 2(High vs. Low Arousal Condition) x 2(Shelters vs. Militants Story) x 2(Order) mixed factorial design repeated measures ANOVA was performed on the Pre-Article Attitude Scores. The analysis did indeed show a significant interaction effect between Story and Order factors, $F(1, 123) = 10.28, p = .002$.

In order to describe the significant differences within the above order effect, an analysis of simple main effects was performed by conducting a 2(Story) X 2(Order) ANOVA on Pre-Article Attitudes using the estimated marginal means from the omnibus analysis (see Table 4). The results showed that when the Militants articles were read second, they were rated as significantly more negative ($M = -21.51, SD = 18.21$) than

when they were read first ($M = -8.37, SD = 22.38$) $F(1, 123) = 13.31, p < .001$.

Moreover, when the Militants articles were read second, they were rated as significantly more negative ($M = -21.51, SD = 18.21$) than were the Shelters articles when they were read second ($M = -9.28, SD = 20.04$), $F(1, 123) = 13.05, p < .001$.

Table 4
Mean Pre-Article Attitude Scores for Stories Between Orders

Order	Story	
	Shelters	Militants
Read First	-6.69 (25.33)	-8.37 (22.38)
Read Second	-9.28 (20.04)	-21.51 (18.21)

Note. Standard Deviations appear in parentheses below means.

Recognition Memory and Comprehension Measures. Despite the low reliability of the Recognition Memory and Comprehension questions sets, analyses were performed on these measures to see if their results would differ from the composite Knowledge Score findings. To do this 2(High Arousal vs. Low Arousal) x 2(Shelters vs. Militants Story) x 2 (Order) mixed factorial ANOVAs with repeated measures were performed for each measure. The Box's M tests were non-significant for both measures. The results for both measures showed no main effects for Arousal or Article factors. Only interaction effects between Article and Order factors were found—Recognition Memory Article X Order, $F(1, 123) = 14.19, p < .001$; Comprehension Article X Order, $F(1, 123) = 5.66, p = .019$. In both of these cases the Shelters Articles performances were significantly better when read first then when read second. These findings reflect those of the composite Knowledge Scores, except no Article X Arousal interactions were found

for either Recognition Memory or Comprehension, as was found for the composite Knowledge Scores.

IV. DISCUSSION

The present data may indicate that manipulating terms in a news article to produce an increase in arousal does not influence measurements of participant attitudes regarding the article topic, nor their knowledge of the information therein presented. The only instance in which the arousal manipulation had a significant influence in this study was the interaction effect on Knowledge Scores between Arousal Conditions and the two stories. Moreover, simple main effect analysis revealed that this interaction effect was significant only between stories at the High-Arousal level, and not between arousal conditions. Specifically, while no difference existed between the two Low Arousal versions of the two stories, Knowledge Scores for the High Arousal Shelters article were significantly worse than the scores for the High Arousal Militants article. This finding indicated that the cognitive effects of language arousal were significant only in relation to the kind of story in which the sensational language was being used.

The apparent lack of findings in the dependent variables could be attributed to a failure of the arousal manipulation. The manipulation check questions used in this study to test the language of the High and Low arousal article versions showed no differences in the participant's ratings of arousal or valence. It appears the arousal manipulation to the articles was not a strong enough effect for the participants to perceive. While the manipulation was statistically significant at the individual word level, based on the analysis of the manipulated terms, these arousal effects did not generalize to affect the arousal level of the article as a whole. If this is the case, then future research could scale down the level of analysis and compare the effects of such a manipulation at the

sentential level rather than at the discourse level. There may appear more local effects of word arousal on other information within the same sentence.

Although the arousal manipulation to the articles was not a primary factor in influencing the dependent variables, there did appear systematic order effects within the data. Specifically, the measures of Pre-article attitudes showed that when the Militants articles were read after the Shelters articles they were rated as significantly more negative compared to when they were read first, as well as how the Shelters articles were rated when they were read second. This flooring effect at the Pre-article measure resulted in weaker Attitude Change Scores for the Militants articles when they were read second. Additionally, the Shelters articles had weaker Attitude Change Scores when read after the Militants articles than when they were read first. These findings are interpreted to be manifestations of the same contrast effect between the two stories. Specifically, the two stories in this study appear to be judged by readers as inherently different kinds of "bad news". Behaviorally speaking, when either article was read first, participants acknowledged both as being "bad news" with no significant differences in attitudinal ratings. However, when the Militants followed the Shelters articles, participants demonstrated an exaggerated attitudinal response to the article. Conversely, when the Shelters followed the Militants articles, participants showed a reduced attitudinal response.

An order effect, independent of the above Arousal X Article interaction, was found for Knowledge Scores as well. Specifically, participants performed better on the Knowledge questions for the second article they received than how they performed for the first article. This finding was interpreted to be a practice effect such that, after having

completed the questions for the first article, participants became familiar with the kinds of questions which would follow the second article. In analyses of the two stories, this pattern proved true for the Shelters article— participants had better scores for the Shelters articles when they were read second than when read first. However, this was not the case for the Militants article—there was no difference in performance when read first or second. The question that follows is why this practice effect was not statistically significant for the Militants articles, in comparing scores when read first to scores when read second.

Future Research

The most important finding from this study was that the arousal manipulation affected Knowledge of the article in distinct ways for the two articles. Thus, the influence of language arousal is more meaningfully researched in relation to its interaction with different kinds of stories. Future work could make better predictions about knowledge performance by further investigating this interaction.

The more robust finding from this study was a significant contrast effect, manifested by the systematic differences in the dependent variables as a function of the order of article presentation. Future research would benefit by recognizing that, while the stimulus articles performed the same when presented first—without any referential context-- the influence of a preceding article was dramatically significant on the dependent variables of a second article, for at least the Militants articles is this study. Thus, the referential context in which news articles appear may influence reader's attitudes (and perhaps other cognitive processes) for other article pairing as well.

As suggested previously, future research may be more successful by scaling down the level of analysis from a discourse comparison to a sentence-by-sentence comparison. A research question along these lines would read: can memory performance of a particular piece of information within article be influenced by surrounding arousing terms, as a function of the magnitude of the arousal and the distance of the arousing term from the dependent information? From this level of analysis memory performance of this piece of information could be compared to other pieces of information within the same discourse. Perhaps a physiological measure, such as galvanic skin response, could serve as a more appropriate and sensitive manipulation check of emotional arousal than the self-report measure used in this study; especially if used in a scaled down paradigm such as the above described.

One methodological concern in this study was the interrelation between arousal, valence, and dominance ratings of the manipulated stimulus terms, and how they may each influence the dependent variables. These three facets of language are shown to all be correlated in the literature, as well as in the present data. Despite showing that the arousal ratings of the stimulus terms were still statistically significant after mathematically controlling for the influence of the other factors, this study was unable to control for their influence within the dependent variables, and thus determine their independent influence (if any). Future research may be better suited to parse the effects of these dimensions.

Another methodological concern in this study was the decision to combine the Recognition Memory and Story Comprehension scales into one composite “Knowledge” scale. Recognition memory and story comprehension are two distinct constructs in how a discourse is represented in memory, and should be treated thusly. To reconcile the low

reliability of the Comprehension, the current study combined these scales post-hoc in an effort to have both types of questions represented in the dependent measures. While this method was mathematically defensible in this particular study, future research is strongly cautioned from following this methodology. An alternative solution would be to perform increased development on these scales a priori, to increase their reliability— increasing the number of items used in the Comprehension Scale could be beneficial.

Conclusion

The present data showed that manipulating terms in a news article to produce an increase in arousal did not influence measurements of participant attitudes regarding the article topic, nor their knowledge of the information therein presented. If these findings are accurate then they indicate that sensationalized language use in news articles is not a strong enough factor to influence the reader's objectivity of the article, nor their understanding or their memory of the factual information. This conclusion is in direct opposition to the implication in Patterson's (2000) claim, that sensationalization impedes the reader's objective knowledge of a news article's information.

The most robust findings from this study were the differences in attitudinal and knowledge performances as functions of the order in which the articles were read. These order effects showed that behavioral changes in the participants were contingent on the kind of story being evaluated, and the referential context established by the preceding article. This conclusion is supported in the literature by the existence of "story type" as a factor of soft news (Reinemann et al. 2011), yet it expands current theory by adding to it the influence of preceding information on behavioral consequences. The addition of this interactional contrast effect between stories is an important contribution to the theory

underlying sensational news. It implies that while sensational language use in a given news article may not influence reader objectivity or knowledge of that particular article, there will be attitudinal and cognitive consequences to secondary information, unduly influenced by the preceding arousing, but unrelated content.

APPENDIX SECTION

APPENDIX A

“Shelters” Article, Low- and High-Arousal Versions. Manipulated terms bolded for emphasis. High-Arousal terms appear in parentheses following the Low-Arousal terms.

Term ratings of Arousal, Valence, and Dominance at end.

New York Is **Removing (Relocating)** Over 400 Children From 2 Homeless Shelters

In the face of New York’s **inflating (exploding) problem (crisis)** with homelessness, Mayor Bill de Blasio will announce on Friday that his administration is **removing (relocating)** hundreds of children from two city-owned homeless shelters that inspectors have repeatedly **denounced (criticized)** for **inexcusable (deplorable)** conditions over the last decade, officials said.

The city has begun **removing (relocating)** over 400 children and their families out of the Auburn Family Residence in Fort Greene, Brooklyn, and from the Catherine Street shelter in Lower Manhattan, while **pledging (swearing)** to improve services for the **expanding (surging)** population of 22,000 homeless children, Mr. de Blasio and other officials said in interviews this week.

The administration is **trying (attempting)** to find either subsidized permanent housing or suitable temporary shelter for the families and will be converting the Auburn and Catherine Street facilities into adult family shelters, the officials said.

For nearly three decades, thousands of children passed through Auburn and Catherine Street, living with **insects (bugs)**, **spoiled (rancid)** food, **insufficient (meager)** heat, and **unstable (vicious)** residents; even as inspectors **advised (warned)** that the shelters were **unfit (dangerous)** for children.

State and city inspectors have cited Auburn for over 400 violations — many of them repeated — for a range of **problems (dangers)** including vermin, mold, lead exposure, an inoperable fire safety system, insufficient child care and the presence of sexual predators, among them, a caseworker.

Records and interviews show that similar lapses have **followed (haunted)** Catherine Street, which, like Auburn, is a **declining (decaying)** residence with communal bathrooms that children share with **others (strangers)**. Families live in **small (tiny)** rooms without kitchens or running water, preventing them from cooking their own meals or washing baby bottles.

Since 2006, the state agency responsible for overseeing homeless shelters has routinely **ordered (demanded)** the city to **remove (relocate)** all infants and toddlers from Catherine Street, citing at least 150 violations in that time.

That agency, the Office of Temporary and Disability Assistance, could have sanctioned Auburn and Catherine Street by withholding state funding, but chose not to because that “would have meant defunding services that **support (help)** tens of thousands of New Yorkers in need at a time when New York City had the highest number of homeless residents in its history,” the office’s commissioner, Kristin M. Proud, said in an email.

As Auburn’s families depart, security guards from that shelter will be transferred to Catherine Street, where 211 children currently reside, a spokeswoman for the department said. Since January, a dozen families have been placed in other shelters or in permanent housing, and the rest will be moved by the fall, officials said.

The transition plan for both shelters will cost the city more than \$13 million, between allocations for **enhanced (increased)** security and upgrades to both facilities, which will feature closed-circuit security cameras, renovated bathrooms and refurbished rooms.

Both Auburn and Catherine Street were converted into family shelters in 1985 and, in the intervening decades, have remained a **plight (nightmare)** to homeless advocates.

“Until today, no mayor was **willing (inclined)** to say no children should be treated this way, and that’s a historic breakthrough,” said Steven Banks, the attorney in chief at the Legal Aid Society, which has **opposed (battled)** the city in court over shelter conditions.

Yet only a **small (tiny)** fraction of the city’s homeless children live at Auburn and Catherine Street. Its temporary housing system includes 151 family facilities of varying quality, and it remains to be seen whether the administration will **address (undertake)** concerns about conditions at other shelters.

Advocates for the homeless have **pressed (urged)** Mr. de Blasio to reinstate several policies that ended under Mayor Michael R. Bloomberg. From 1990 until 2005, the city placed more than 53,000 homeless families in permanent housing by giving them priority referrals to federal subsidy programs, according to an analysis of city data by Patrick Markee of the Coalition for the Homeless.

The Bloomberg administration **nixed (terminated)** that policy and in its place created a short-term rent subsidy program that ended in 2011 when the state **removed (canceled)** its portion of the funding. By the time Mr. Bloomberg left office at the end of last year, the homeless population had peaked at more than 52,000 — the highest number on record since the Great Depression.

“There are major American cities that have the same population as we have people in shelter,” Mr. de Blasio said. “We have to look this in the face. This is an **unacceptable (horrible)** dynamic, and we have to **reverse (fight)** it.”

In interviews, Mr. de Blasio, his deputy mayor for health and human services, Lilliam Barrios-Paoli, and the newly appointed homeless services commissioner, Gilbert Taylor, laid out the broad outlines of a still-evolving plan to **address (conquer)** homelessness.

They will focus on prevention efforts, and said the administration was committed to renewing a version of the former rent subsidy program, which will require money from the state. They are also **considering (exploring)** a plan to enhance anti-eviction legal services for families, and an “aftercare” support program intended to prevent newly housed families from becoming homeless again.

The city is less likely to **rely (depend)** on federal housing programs as a solution because of the **decreasing (shriveling)** supply, Mr. de Blasio said. “It will be a tool we use as needed, but I think the central **effort (thrust)** has to be getting at the root causes,” he said. “Greater supply of affordable housing. Pushing up wages and benefits. More preventative efforts.”

Term Ratings of Arousal, Valence, and Dominance—Shelters Low; Shelters High

REMOVE (A= 3.11, V= 4.21, D= 4.56); **RELOCATE** (A= 4.38, V= 4.05, D= 5.3)
INFLATE (A= 3.3, V= 4.3, D= 5.28); **EXPLODE** (A= 5.32, V= 4.38, D= 2.96)
PROBLEM (A= 4.81, V= 3.52, D= 4.94); **CRISIS** (A= 6.29, V= 2.05, D= 3.77)
REMOVE (A= 3.11, V= 4.21, D= 4.56); **RELOCATE** (A= 4.38, V= 4.05, D= 5.3)
DENOUNCE (A= 4.08, V= 4.24, D= 4); **CRITICIZE** (A= 5.27, V= 2.41, D= 4.7)
INEXCUSABLE (A= 3.59, V= 3.68, D= 3.82); **DEPLORABLE** (A= 4.73, V= 3.9, D= 4)
REMOVE (A= 3.11, V= 4.21, D= 4.56); **RELOACTE** (A= 4.38, V= 4.05, D= 5.3)
PLEDGE (A= 3.95, V= 5.09, D= 6); **SWEAR** (A= 5.05, V= 3.44, D= 4.11)
EXPAND (A= 3.3, V= 5.35, D= 5.43); **SURGE** (A= 5.22, V= 5, D= 5.92)
TRY (A= 4, V= 5.64, D= 5.94); **ATTEMPT** (A= 4.94, V= 6, D= 5.67)
INSECT (A= 4.67, V= 4.43, D= 4.79); **BUG** (A= 6.06, V= 3.45, D= 4.08)
SPOIL (A= 4.09, V= 2.83, D= 4.11); **RANCID** (A= 5.16, V= 2.38, D= 4.07)
INSUFFICIENT (A= 3.57, V= 3.24, D= 3.38); **MEAGER** (A= 4.63, V= 3.35, D= 4.46)
UNSTABLE (A= 5.05, V= 3.43, D= 3.75); **VICIOUS** (A= 6.05, V= 2.63, D= 5.5)
ADVISE (A= 3.38, V= 5.44, D= 6.41); **WARN** (A= 4.65, V= 4.9, D= 5.27)
UNFIT (A= 3.77, V= 2.95, D= 4.22); **DANGEROUS** (A= 6.81, V= 2.33, D= 2.56)
PROBLEM (A= 4.81, V= 3.52, D= 4.94); **DANGER** (A= 5.84, V= 2.66, D= 3.64)
FOLLOW (A= 3.76, V= 4.82, D= 4.81); **HAUNT** (A= 4.87, V= 4.05, D= 4.39)
DECLINE (A= 3.6, V= 3.19, D= 3.71); **DECAYING** (A= 4.68, V= 2.81, D= 3.14)
OTHER (A= 3.48, V= 5.41, D= 6); **STRANGER** (A= 5.8, V= 4.09, D= 4.84)
SMALL (A= 3.43, V= 5.76, D= 4.53); **TINY** (A= 4.6, V= 5.1, D= 6.16)
ORDER (A= 3.19, V= 5.82, D= 6.56); **DEMAND** (A= 5.85, V= 4.1, D= 5.14)

REMOVE (A= 3.11, V= 4.21, D= 4.56); **RELOCATE** (A= 4.38, V= 4.05, D= 5.3)
SUPPORT (A= 3.05, V= 6.89, D= 6.11); **HELP** (A= 4.29, V= 6.95, D= 6.89)
ENHANCE (A= 4.04, V= 6.62, D= 6.58); **INCREASE** (A= 5.06, V= 5.9, D= 6.09)
PLIGHT (A= 3.85, V= 4.21, D= 4.8); **NIGHTMARE** (A= 5.83, V= 1.79, D= 3.21)
WILLING (A= 2.76, V= 6.83, D= 6.5); **INCLINED** (A= 3.79, V= 4.95, D= 5.37)
OPPOSE (A= 5.17, V= 4.21, D= 5.74); **BATTLE** (A= 6.25, V= 3.52, D= 5.63)
SMALL (A= 3.43, V= 5.76, D= 4.53); **TINY** (A= 4.6, V= 5.1, D= 6.16)
ADDRESS (A= 3.05, V= 6.11, D= 4.89); **UNDERTAKE** (A= 4.22, V= 4.21, D= 5.21)
PRESS (A= 2.8, V= 5.39, D= 4.78); **URGE** (A= 5.29, V= 5.11, D= 4.5)
NIX (A= 3.89, V= 4, D= 3.9); **TERMINATE** (A= 4.95, V= 3.05, D= 3.25)
REMOVE (A= 3.11, V= 4.21, D= 4.56); **CANCEL** (A= 4.29, V= 3.61, D= 5.83)
UNACCEPTABLE (A= 4.43, V= 3.29, D= 4.22); **HORRIBLE** (A= 5.95, V= 2.33, D= 5.16)
REVERSE (A= 3.73, V= 5.2, D= 6.08); **FIGHT** (A= 6.33, V= 3.54, D= 4.68)
ADDRESS (A= 3.05, V= 6.11, D= 4.89); **CONQUER** (A= 5.23, V= 4.29, D= 5.67)
CONSIDER (A= 2.71, V= 6.56, D= 6.06); **EXPLORE** (A= 4.05, V= 7, D= 6.52)
RELY (A= 3.8, V= 5.76, D= 5.05); **DEPEND** (A= 4.45, V= 5, D= 6.21)
DECREASE (A= 3.05, V= 4.16, D= 3.68); **SHRIVEL** (A= 4.14, V= 4.21, D= 4.05)
EFFORT (A= 4.12, V= 6.47, D= 6.64); **THRUST** (A= 5.29, V= 5.75, D= 6.11)

APPENDIX B

“Militants” Article, Low- and High-Arousal Versions. Manipulated terms bolded for emphasis. High-Arousal terms appear in parentheses following the Low-Arousal terms.

Term ratings of Arousal, Valence, and Dominance at end.

Militants **Strike (Attack)** Presidential Palace in Somalia

Multiple explosions and a firefright erupted near the presidential palace here in Mogadishu, the capital of Somalia, on Friday in a **deadly (violent)** militant **siege (attack)** on the **center (heart)** of the government.

“Terrorists tried to attack the presidential palace and the security forces **foiled (disrupted)** the **strike (assault)**,” Abdikarim Hussein Guled, the minister of the interior and national security, told state media. He called on the public to remain calm and promised to provide more information later.

Nicholas Kay, the United Nations’ special representative for-Somalia said in a message that the Somalian president, Hassan Sheik Mohamud, had not been **hurt (harmed)** during the attack on the palace, known as Villa Somalia. “President just called me to say he’s unharmed,” Kay said. “**Siege (Attack)** on Villa Somalia has failed. Sadly there were some casualties. I **denounce (condemn)** this act of **violence (terrorism)**.”

Witnesses said a loud explosion was heard, followed by an **exchange (eruption)** of gunfire and then a series of other **blasts (explosions)** around Villa Somalia. Ambulances were on the scene providing aid to those who were **wounded (injured)**.

Capt. Mohamed Hussein of the police told The Associated Press that the attack had begun with a car bomb, followed by militants attempting to **infiltrate (penetrate)** the compound, where the president and the speaker of Parliament reside and have their offices.

“Somali National Security Forces **foiled (disrupted)** the attack outside Villa Somalia,” said the African Union mission in Somalia, known as Amisom, in a message after the **episode (incident)**. “Senseless attack was directed on innocent **citizens (civilian)** as Friday prayers were underway in Mosques.”

Three suicide bombers tried to assassinate Mr. Mohamud in September 2012, as he was holding a news conference at a hotel with the visiting Kenyan foreign minister. Mr. Mohamud was not **hurt (harmed)** in that **incident (attack)** either, but an African Union soldier was killed.

A spokesman for the Somali militant group, called the Shabab, claimed responsibility for the attack.

“Our **troops (commandos)** have attacked the so-called presidential palace in order to **terminate (kill)** or **detain (arrest)** those who are inside,” the Shabab military spokesman Sheikh Abdul Aziz Abu Musab told AFP.

At least five people were killed and a dozen wounded last week when a car loaded with explosives blew up near the entrance to the international airport in Mogadishu, an attack believed to be intended for a passing United Nations convoy. The Shabab also claimed responsibility for that attack.

“Al-Shabaab were unsuccessful in trying to **hinder (disrupt)** ongoing plans by Somali National Forces & #AMISOM to **flush (force)** them out of their remaining **outposts (bunkers)**,” Amisom said in a subsequent message.

The Shabab came to prominence as a nationalist movement combating the United States-backed Ethiopian invasion of Somalia in 2006. The group **seized (captured)** control of large swathes of the country, including Mogadishu.

Somali and African Union forces **pressed (pushed)** the militants back in recent years but despite all their territorial gains have been unable to slow the frequency of guerrilla-style attacks. The Shabab recently even announced a ban on the use of the Internet in Mogadishu and areas under their **influence (authority)**.

The tactics used in Friday’s **siege (attack)** have become all too familiar to security personnel in Somalia. On New Year’s Day a similar assault killed half a dozen or more people at the Jazeera hotel in Mogadishu. In one of the most **terrible (horrific)** attacks, the militants detonated a pickup truck in front of the United Nations compound last June and then stormed the facility with gunmen, killing at least 15 people.

Police stations, the court complex in Mogadishu and restaurants popular with peacekeepers and government officials have all been targeted. The **group (militants)** demonstrated that they could project power beyond Somalia’s borders when gunmen armed with AK-47’s carried out a **savage (bloody) raid (assault)** at the Westgate shopping mall in the Kenyan capital, Nairobi, last September, killing more than 60 men, women and children.

In November the United Nations Security Council authorized an increase of more than 4,000 peacekeepers in Somalia, bringing the total number of African peacekeepers there to more than 22,000 while also **expanding (increasing)** logistical support for the fight against the militants.

The Pentagon in December sent a small **team (squad)** of uniformed military advisers to Somalia to help provide logistics, planning and communications assistance to Somali and

other African forces combating the group. They are the first American troops there since 1993, when 18 Americans were killed in an episode widely known as “Black Hawk Down.”

“This is another **terrible (vile)** act which does nothing but **hurt (harm)** the people of Somalia” Mr. Kay, the United Nations’ special representative, said in a statement Friday. “The Somali people are **weary (weak)** from the shootings, bombings and killings. It’s time for a new chapter in Somalia’s history and we cannot allow a slide back at this **crucial (vital)** time.”

Villa Somalia **mentioned (declared)** in a statement, “Don’t be fooled by this ‘media spectacular’. This is another act of desperation from a dying animal.”

Term Ratings of Arousal, Valence, and Dominance—Militants Low; Militants High

STRIKE (A= 5.52, V= 3.06, D= 3.28); ATTACK (A= 7.05, V= 2, D= 3.39)
DEADLY (A= 5.04, V= 1.9, D= 3.73); VIOLENT (A= 6.3, V= 2.26, D= 3.65)
SIEGE (A= 5.55, V= 4.1, D= 4.39); ATTACK (A= 7.05, V= 2, D= 3.39)
CENTER (A= 2.62, V= 5.56, D= 5.72); HEART (A= 5.07, V= 6.95, D= 5.43)
FOIL (A= 3.7, V= 4.57, D= 5.04); DISRUPT (A= 4.87, V= 3.48, D= 4.62)
STRIKE (A= 5.52, V= 3.06, D= 3.28); ASSAULT (A= 6.8, V= 2.05, D= 3.49)
HURT (A= 4.72, V= 2.45, D= 3.73); HARM (A= 5.9, V= 1.91, D= 3.95)
SIEGE (A= 5.55, V= 4.1, D= 4.39); ATTACK (A= 7.05, V= 2, D= 3.39)
DENOUNCE (A= 4.08, V= 4.24, D= 4); CONDEMN (A= 5.33, V= 2.62, D= 4.17)
VIOLENCE (A= 5.95, V= 2.71, D= 3.24); TERRORISM (A= 7.42, V= 1.6, D= 2.69)
EXCHANGE (A= 4.76, V= 5.9, D= 5.88); ERUPTION (A= 6.09, V= 4.74, D= 2.82)
BLAST (A= 4.5, V= 4.45, D= 4.45); EXPLOSION (A= 6.35, V= 3.17, D= 3.62)
WOUND (A= 4.65, V= 3.24, D= 3.64); INJURE (A= 5.9, V= 3.74, D= 4.22)
INFILTRATE (A= 5.13, V= 4.41, D= 5.11); PENETRATE (A= 6.08, V= 5.71, D= 5.41)
FOIL (A= 3.7, V= 4.57, D= 5.04); DISRUPT (A= 4.87, V= 3.48, D= 4.62)
EPISODE (A= 3.67, V= 5, D= 5.4); INCIDENT (A= 5.65, V= 4.2, D= 5.05)
CITIZEN (A= 2.63, V= 6.43, D= 5.95); CIVILIAN (A= 3.7, V= 5.48, D= 5.58)
HURT (A= 4.72, V= 2.45, D= 3.73); HARM (A= 5.9, V= 1.91, D= 3.95)
INCIDENT (A= 5.65, V= 4.2, D= 5.05); ATTACK (A= 7.05, V= 2, D= 3.39)
TROOP (A= 4.5, V= 5.58, D= 4.74); COMMANDO (A= 5.95, V= 5.52, D= 4.47)
TERMINATE (A= 4.95, V= 3.05, D= 3.25); KILL (A= 6.81, V= 1.81, D= 3.61)
DETAIN (A= 4.25, V= 3, D= 4.86); ARREST (A= 6.86, V= 2.33, D= 3.11)
HINDER (A= 3.43, V= 3.9, D= 4.68); DISRUPT (A= 4.87, V= 3.48, D= 4.62)
FLUSH (A= 4.35, V= 4.67, D= 5.62); FORCE (A= 5.35, V= 4.17, D= 4.22)
OUTPOST (A= 3.05, V= 4.67, D= 6.06); BUNKER (A= 4.23, V= 4.7, D= 4.95)
SEIZE (A= 4.06, V= 3.79, D= 5.18); CAPTURE (A= 5.43, V= 5.05, D= 3.57)
PRESS (A= 2.8, V= 5.39, D= 4.78); PUSH (A= 4.4, V= 5.39, D= 4.06)
INFLUENCE (A= 4.3, V= 5.53, D= 5.96); AUTHORITY (A= 5.35, V= 4.76, D= 5.19)

SIEGE (A= 5.55, V= 4.1, D= 4.39); **ATTACK** (A= 7.05, V= 2, D= 3.39)
TERRIBLE (A= 4.39, V= 2.1, D= 3.4); **HORRIFIC** (A= 6, V= 2.2, D= 4.15)
GROUP (A= 3.43, V= 5.78, D= 4.39); **MILITANT** (A= 5.38, V= 3.95, D= 4.4)
SAVAGE (A= 4.68, V= 4.29, D= 4.22); **BLOODY** (A= 5.76, V= 2.86, D= 3.75)
RAID (A= 5.62, V= 3.35, D= 3.91); **ASSAULT** (A= 6.8, V= 2.05, D= 3.49)
EXPAND (A= 3.3, V= 5.35, D= 5.43); **INCREASE** (A= 5.06, V= 5.9, D= 6.09)
TEAM (A= 3.38, V= 5.91, D= 6.53); **SQUAD** (A= 4.33, V= 5.35, D= 5.82)
TERRIBLE (A= 4.39, V= 2.1, D= 3.4); **VILE** (A= 5.48, V= 2.21, D= 3.83)
HURT (A= 4.72, V= 2.45, D= 3.73); **HARM** (A= 5.9, V= 1.91, D= 3.95)
WEARY (A= 2.9, V= 3.25, D= 4.55); **WEAK** (A= 4.9, V= 2.95, D= 5.32)
CRUCIAL (A= 4.14, V= 5.16, D= 4.91); **VITAL** (A= 5.15, V= 5.84, D= 6.5)
MENTION (A= 2.65, V= 5.39, D= 5.33); **DECLARE** (A= 4.4, V= 5.42, D= 6.13)

APPENDIX D

Recognition Memory Questionnaires

“Shelters” Articles

SR1 What city was the main focus of the article?

- New York
- Albany
- New Rochelle
- Boston

SR2 What institutions were the main focus of the article?

- Homeless Shelters
- Soup Kitchens
- Motels
- Rehabilitation Centers

SR3 Which governing official was the main focus of the article?

- Mayor Bill de Blasio
- Mayor Rob Barton
- Governor Andrew M. Cuomo
- Governor Patrick Markee

SR4 According to the article, how many children were being moved?

- over 400
- over 300
- over 500
- over 200

SR5 According to the article, what is the current population of homeless children?

- 22,000
- 32,000
- 52,000
- 42,000

SR6 Which two shelters were the focus of the article?

- Catherine Street Shelter and Auburn Family Residence
- Catherine Family Residence and Auburn Street Shelter
- Auburn Family Residence and Caroline Street Shelter
- Allburn Street Shelter and Catherine Family Residence

SR7 Which of the following were NOT violations cited in the article?

- contaminated water
- sexual predators
- vermin
- insufficient child care

SR8 Which of the following were NOT violations cited in the article?

- over-crowding
- mold
- lead exposure
- inoperable fire safety system

SR9 According to the article, State and city inspectors have cited Auburn for how many violations?

- over 400
- over 300
- over 450
- over 150

SR10 According to the article, how many violations have been cited for Catherine Street Shelter since 2006?

- At least 150
- At least 300
- At least 400
- At least 450

SR11 Which of the following was the state agency responsible for overseeing homeless shelter conditions?

- the Office of Temporary and Disability Assistance
- the Office of Occupational and Living Assistance
- the Office of Homeless Shelter and Temporary Residence Assistance
- the Office of Temporary and Permanent Residence Assistance

SR12 According to the article, how could the shelters have been sanctioned?

- by withholding state funding
- by condemning the facilities
- by fining the shelter managers
- by evicting the residents

SR13 According to the article, how many children currently reside in Catherine Street Shelter?

- 211
- 150
- 111
- 151

SR14 According to the article, how much will the transition plans for both the shelters cost the city?

- more than \$13 million
- more than \$15 million
- more than \$14 million
- more than \$16 million

SR15 According to the article, which of the following are NOT going to be an upgrade to the shelters?

- upgraded cafeterias
- security cameras
- renovated bathrooms
- refurbished rooms

SR16 When were the shelters converted into family shelters?

- 1985
- 1975
- 1995
- 1965

SR17 According to the article, how many family facilities are apart of New York City's temporary housing system?

- 151
- 400
- 211
- 150

SR18 According to the article, advocates for the homeless support the re-institution of policies that ended under which Mayor?

- Michael Bloomberg
- Bill de Blasio
- Andrew Cuomo
- Patrick Markee

SR19 According to the article, under the previous mayor the homeless population had reached its highest number since the Great Depression, and peaked at what number?

- more than 52,000
- more than 22,000
- more than 32,000
- more than 42,000

SR20 Which of the following was NOT mentioned in the article as an effort to address homelessness?

- installing free educational seminars for families
- renewing a version of the rent subsidy program
- enhance anti-eviction legal services for families
- an "aftercare" support program

“Militants” Articles

MR1 What city was the main focus of the article?

- Mogadishu
- Musab
- Nairobi
- Amisom

MR2 What facility was the main focus of the article?

- The Presidential Palace, Villa Somalia
- The Parliament Building
- The Westgate Shopping Mall
- The Jazeera Hotel

MR3 Who is the president who was attacked?

- Hassan Sheik Mohanauud
- Sheihk Abdul Aziz Abu Musab
- Nicholas Kay
- Abdikarim Hussein Guled

MR4 What does AMISOM stand for?

- African Union mission in Somalia
- American Mission in Somalia
- Amnesty in Somalia
- Armor and Military in Somalia

MR5 How did the attack on Villa Somalia begin?

- Car bomb
- Gun fire
- Three suicide bombers
- Sniper fire

MR6 Who resides in Villa Somalia?

- The president and the speaker of Parliament
- The minister of the interior and national security
- The African Union mission representative
- The Somali foreign minister

MR7 Who was killed when three suicide bombers attacked Mr. Mohamud in September 2012?

- An African Union Soldier
- Mr. Mohamud
- A Shabab military spokesman
- A United Nations convoy

MR8 What Somali militant group has claimed responsibility for the attack on Villa Somalia?

- The Shabab
- Amisom
- The Mogadishu
- African Union forces

MR9 According to the article, all of the following facilities have been attacked by the Shabab except

- The Somali National Forces building
- The international airport
- The Jazeera Hotel
- The United Nations compound

MR10 How did the Shabab come to prominence?

- By combating the Ethiopian invasion of Somalia in 2006
- By combating the terrorist attacks in Somalia in 2006
- By attempting to shoot their way into Villa Somalia
- By attempting to flush Amisom forces out of their bases

MR11 According to the article, what kinds of attacks are usually conducted by the militant group?

- Guerrilla-style
- Suicide bombers
- Aerial assaults
- Cyber warfare

MR12 What did the Shabab recently announce a ban on?

- The use of the internet
- The use of the international airport
- The use of the Jazeera Hotel
- The use of car bombs

MR13 According to the article, the following facilities have been attacked by the Shabab except

- Movie Theaters
- Police stations
- The court complex
- Popular restaurants

MR14 Where beyond Somalia's borders did the Shabab demonstrate they could project their power?

- The Westgate shopping mall of Nairobi, Kenya
- The United Nations compound in Mombasa, Kenya
- The international airport in Mombasa, Kenya
- The Sheikh court complex in Nairobi, Kenya

MR15 How many more peacekeepers did the United Nations Security Council authorize in Somalia?

- More than 4,000
- More than 6,000
- More than 2,000
- More than 8,000

MR16 After the increase, what is the total number of African peacekeepers?

- More than 22,000
- More than 24,000
- More than 26,000
- More than 28,000

MR17 The Pentagon sent uniformed military advisers to Somalia to provide assistance with all of the following except?

- Intelligence
- Logistics
- Planning
- Communications

MR18 The uniformed military advisers are the first American troops in Somalia since an episode widely known as what?

- Black Hawk Down
- Black Horn Dawn
- Back Door Down
- Black Fox Drown

MR19 How many American were killed in that episode?

- 18
- 15
- 60
- 6

MR20 According to the article, the Somali people are tired of all of the following except?

- Stabbings
- Bombings
- Shootings
- Killings

APPENDIX E

Comprehension Questionnaires

“Shelters” Articles

SC1 Who is moving the children out of the shelters?

- The Mayor's administration
- The children's parents
- The Obama administration
- The Governor's administration

SC2 Why are the children being moved out of the shelters?

- They were living in unsafe living conditions
- There is overpopulation in the shelters
- The shelters are being quarantined due to disease
- The shelters are being closed due to an accumulation of too many violations

SC3 To where are the children and their families going to be moved?

- Temporary housing or subsidized permanent housing
- Out of state
- Cooperating hotels and motels
- Temporary refugee centers set up by the administration

SC4 Why is it important to move the children?

- Provides for a better quality of life for them and their families
- They will receive better educations
- Their families will have more healthcare options
- It will cost the state more for them to remain in the shelters

SC5 It can be inferred from the article that the number of violations incurred by the shelters was...

- A lot and needed to be addressed
- A lot but did not need to be addressed
- Neither a lot nor a few
- Few and did not need to be addressed

SC6 It can be inferred from the article that the Office of Temporary and Disability Assistance thought sanctioning the shelters would...

- Cause more harm than would be beneficial
- Be beneficial for the children and the state
- Be beneficial for the children but not for the state
- Be beneficial for the parents but not for the children

SC7 It can be inferred from the article that security guards in homeless shelters are...

- Important
- Unimportant
- Useless
- Abundant

SC8 Have homeless shelter living conditions been paid much attention by the current and previous mayors?

- They have been by recent mayors, but not by past mayors
- They have been by both past and recent mayors
- They have been by past mayors but not by recent mayors
- They have not been by either past nor recent mayors

SC9 Has homelessness been a major problem for New York?

- Yes
- no
- It has been in the past but not recently
- It has been recently but not in the past

SC10 According to the article, the administration is going to focus on using what kind of solution to decrease homelessness?

- Prevention efforts
- Reactive efforts
- Supplemental efforts
- None of these

“Militants” Articles

MC1 It can be inferred from the article that attacks by the Shabab occur

- Often
- Never
- Rarely
- Everyday

MC2 What can be inferred from the article about the Shabab's relationship with the Somali government?

- They actively and violently oppose the government
- They actively and non-violently oppose the government
- They actively support the government
- They passively support the government

MC3 It can be inferred from the article that the Security Forces were...

- Successful in stopping the attack on Villa Somalia
- Unsuccessful in stopping the attack on Villa Somalia
- Unaided in trying to stop the attack on Villa Somalia
- The cause of the attack on Villa Somalia

MC4 It can be inferred from the article that the methods used by the Shabab to attack Villa Somalia were...

- Their usual methods
- Unusual compared to their usual methods
- Successful in harming the President
- Successful in arresting the President

MC5 It can be inferred from the article that Amisom and Somali National Forces...

- Have ongoing plans in battling the Shabab
- Have just started to respond to the attacks by the Shabab
- Do not know where the Shabab have their bases
- Have captured the Shabab's bases in Somalia

MC6 How much area do the Shabab control in Somalia?

- A significant amount
- None
- An insignificant amount
- The whole country

MC7 It can be inferred from the article that historically the Shabab and the United States have...

- Been in opposition
- Been allies
- Been neither allies nor enemies
- Been both allies and enemies

MC8 Are the views of the Shabab representative of the Somali people in general?

- No
- Yes
- They have been in the past but not recently
- They have been recently but not in the past

MC9 Is there is a lot of violence in Somalia?

- Yes
- No
- There has been in the past but not recently
- There has been recently but not in the past

MC10 It can be inferred from the article that the Somali Government representatives want the public to believe...

- That the Shabab are nearly defeated
- That the Shabab nearly assassinated the President
- That the Shabab are going to leave Somalia
- That the Shabab do not have any influence in Somalia

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