

The Effects of Thunder, Stereotyping, and Cognitive Load on Impression Formation

Devon Struthers^a and Dr. Jamie McMinn^a

The current study examined the effect of stereotypes and stolen thunder on impressions of a person who committed a crime. One hundred twenty undergraduate students from a small private college in rural western Pennsylvania participated in an impression formation task. Participants were given either a 2 digit or a 16 digit number to memorize, followed by a short vignette featuring an African American man whose traits were either consistent or inconsistent with current stereotypes. It was either revealed by the narrator (thunder) or the man (stolen thunder) that he had been convicted of assault. Participants also completed the Need for Cognition scale. A two-way interaction between stereotype consistency and thunder condition emerged. Mainly, when the man was stereotype inconsistent, participants found him to be less guilty than when he was stereotype consistent if he did not reveal the information himself. Future research should focus on the interaction between stolen thunder and stereotype information.

Keywords: stolen thunder, stereotypes, cognitive load, violence, need for cognition

Introduction

The process of stealing thunder has been a valuable tool in a lawyer's arsenal for decades. In the courtroom setting, stolen thunder occurs when a defense attorney reveals potentially damaging information about his or her client before the prosecutor has a chance to reveal the same information. The consequences of stealing thunder generally benefit the defendant, who, in studies with undergraduates acting as mock jurors, is viewed as more honest, trustworthy, and likeable (Williams, Bourgeois, & Croyle, 1993). Also, any incriminating evidence against the defendant is perceived as far less damaging than if the prosecution had revealed the information first (McElhaney, 2005). Stolen thunder is a very interesting topic for social psychological research, and its importance extends beyond the courtroom. Stolen thunder has been studied in the context of journalism and public relations (Arpan & Roskos-Ewoldsen, 2004; Ondrus, 1998), romantic relationships (El-Hajje, 1993; Law 2008; Zablocki, 1996), and stereotypes (Law, 2008). The current study focuses on stolen thunder and its relationship to stereotype (in)consistent information and cognitive load. This framework has been laid down separately by each one of these three concepts (stolen thunder, stereotype information and cognitive load), because each claim to play a role in impression management. The combination of these three processes then should play a far larger role in impression management and being to create a somewhat fuller picture of the underlying processes of an impression.

Stolen Thunder as a Courtroom Tactic

Stealing thunder was first introduced in a courtroom setting and has been a staple of courtroom tactics for many years. It is so widely used and accepted in the courtroom that there is an entire chapter on stolen thunder in *McElhaney's Trial Notebook* by James McElhaney (2005). One of the most important ideas mentioned in this chapter is that stealing thunder is an important way for the defendant to frame negative information (i.e., thunder). This helps the defendant by making the thunder seem far less severe, and also takes

away the ability of the prosecution to frame the offense as especially egregious. This could possibly lead to more lenient sentences (McElhaney, 2005).

The pioneering study of stolen thunder as a courtroom tactic was conducted by Williams, Bourgeois, and Croyle (1993). A series of two studies tested the stolen thunder phenomenon in the court room. In the first study, participants read ostensibly real transcripts from a trial in which a man was accused of battery after a verbal argument. In the stolen thunder condition, the defense revealed that the man previously had been convicted of the same crime twice before, thereby stealing thunder from the prosecution and revealing damaging information about its client before the prosecution could. However, in the thunder condition, the prosecution revealed that the man had committed the crime on two prior instances before the defense could. In the no thunder control condition, information about the man's prior offenses was not mentioned. Participants then rated the defendant's credibility and guilt. Williams et al. found that when the man revealed that he had committed the crime, he was rated as less guilty of the crime. In their second study, Williams et al. (1993) used a man's exposure to asbestos and his prior smoking habits as the thunder in a trial against the company who had exposed the man to the asbestos. Williams et al. (1993) found that stealing thunder not only led to a more lenient judgment of guilt, but it also increased the defendant's credibility in the eyes of the participants. Both studies showed strong support for the effect of stolen thunder in the courtroom.

Howard, Brewer, and Williams (2006) found very similar results, but with one interesting difference; the researchers added cognitive resource processing as a factor. The addition of cognitive resource processing is an important manipulation, especially for the current study. The manipulation of cognitive resource processing is the manipulation of the amount of cognitive or mental resources that a participant has to effectively process information. In all prior studies of stolen thunder, participants had full cognitive

resources at their disposal. Howard, Brewer and Williams changed that, placing participants in either low processing conditions (fewer cognitive resources) or high processing (more cognitive resources). Those in the low processing condition heard an audio tape of a mock trial at a low volume and fast speed. The low processing condition also contained more complex words to use more of the participants' cognitive capacity. The high processing group was given the same mock trial to listen to, although the high processing group's trial was at a higher volume and a steadier speed, and it contained far fewer complex words. Howard et al. (2006) found that in the high processing condition, stolen thunder effectively increased ratings of credibility and guilt level. However, in the low processing condition, stolen thunder did not aid the defendant. Howard et al. (2006) suggested that this was because stolen thunder works best when it is difficult for jurors to process all of the available information, or when peripheral route processing is used. This experiment shows that stolen thunder is only effective inside of certain parameters and once those are crossed, it is not nearly as effective.

Stolen Thunder in Journalism

Ondrus (1998) examined stolen thunder in the context of journalism and "scooping" a political scandal. In her first of three studies, Ondrus studied the impact of integrity-based as opposed to competency-based transgressions. Ondrus defined competency-based transgressions as a transgression that occurs because a lack of competent judgment by the transgressor. Oppositely, an integrity-based transgression occurs because of a lack of ability to make a sound moral judgment. In the first study, the thunder involved a political candidate who had failed to pay \$300,000 in child support (i.e., integrity-based transgression). As in other stolen thunder studies, Ondrus manipulated who revealed this information, either the political candidate (stolen thunder condition), an investigative reporter (thunder condition), or no one (no thunder condition). Real journalists were then asked to rate how interesting they believed the story was, and how much media coverage they believed the story deserved. Ondrus' findings were consistent with stolen thunder literature. When the politician revealed that he had owed the child support money, the journalists rated the news story as less interesting; however, when a journalist revealed the transgression, it was rated as more interesting. These findings are also supported in a similar study conducted by Arpan and Pompper (2003), which tested the same paradigm and found similar results.

In a follow-up study, real newspaper articles were coded into competency-based transgressions and integrity-based transgressions. Article length, where it was located in the newspaper (e.g., front page), and how much media attention the story received were three factors that Ondrus (1998) measured. Ondrus found that stealing thunder reduced how closely the story was followed, but did not reduce where in the newspaper the story was published. She also found that when a reporter revealed the incriminating information, there were far more articles written than if the person revealed the information him- or herself. In a similar study, Ondrus (1998) had participants write a news story that involved the same information as the past two studies. Participants were given a facts sheet that involved a politician either revealing that he owes a significant amount of child support, or that the

participants discovered that information through examination of a vignette. The results of this study actually conflicted with the typical thunder research: Participants who were told that the politician revealed the information actually wrote longer articles than those who supposedly found the information themselves. Ondrus states that this could just be because of the novelty of a politician revealing negative information about him- or herself.

Along the same vein of research, Wigley (2011) examined the sex scandals of Eliot Spitzer, David Paterson, Tiger Woods, and David Letterman. The findings from this study replicated those of Ondrus (1998), showing that those who reveal potentially damaging information about themselves before the media has the opportunity warranted far less media coverage of their transgression than those who did not reveal the potentially damaging information. In 2003 Arpan and Pompper (2003), tested the results of both the Ondrus (1998) study and found support through replication in the Wigley (2011) study experimentally. Instead of sifting through newspaper articles, they asked journalists to read a scenario and then rate the scenario on the same dependent measures that Ondrus (1998) and Wigley (2011) tested, such as perceived media attention of a story as well as perceived media favorability of situations. Arpan and Pompper found that journalists who read an article with stolen thunder rated it as far less interesting, deserving of less media coverage, and perceived the subject more favorably than those who did not describe stolen thunder.

Arpan and Roskos-Ewoldsen (2004) tested general reactions to news that the product of a well-known company, Pepsi, was making people sick. They manipulated whether or not the Pepsi corporation revealed this information or not and tested participants' reactions to this news. As predicted, when the Pepsi Corporation revealed that its product was making people sick, participants viewed the company as more favorable, likeable, and credible.

As the aforementioned studies have shown, professionals in careers ranging from law to journalism rely on the process of stolen thunder for different reasons. Studies by Williams et al. (1993) and Howard et al. (2006) show that stolen thunder can be successfully used in the courtroom to help strengthen the perceived credibility of a defendant. Similarly, studies by Arpan and Roskos-Ewoldsen (2004) and Ondrus (1998) show that stolen thunder greatly influences the coverage of a news story. Stolen thunder's impact on someone's professional opinion adds a great deal of validity to the strength of the effect. A natural progression of research would then be from the professional world to the personal world. Stolen thunder has been applied to many interpersonal situations.

Stolen Thunder in Interpersonal Relationships

Looking at applications of stolen thunder to interpersonal relationships, Zablocki (1996) moved away from archival studies or experiments based on manipulated stories or trial transcripts. Instead, male participants in Zablocki's experiment interacted with a flirtatious female confederate while waiting for the experiment to begin. During this interaction, the confederate asked the participant if he would be interested in going on a date. Later on, some of the participants discovered that the confederate had herpes. How the participant discovered that the confederate had herpes varied by condition. In the thunder condition, participants saw

a pill bottle that belonged to the confederate, and the bottle's label listed the name of a herpes medication. In the stolen thunder condition, the confederate revealed to the participant that she had herpes. There was also a control condition in which it was not revealed to the participant that the woman had herpes. Zablocki hypothesized that if the confederate admitted to having herpes, the participant would be more willing to accept her request for a date. Unfortunately, Zablocki did not find significant differences among her conditions because of small sample size, though the means were in the predicted direction.

Similarly, El-Hajje (1993) studied the effects of stolen thunder on video personal dating advertisements. The negative information in this study was about a potential dating partner, as shown in a five-minute video personal advertisement. At one point, either the subject of the video personal or a fact sheet revealed that he or she was a recovering alcoholic. El-Hajje predicted that when the person revealed the information, it would be viewed as less negative than if participants discovered it on a fact sheet. This study also yielded non-significant differences. El-Hajje believed that this was because the stigma of recovering from alcoholism was not negative enough to have a large effect on the participants' decisions.

Attempting to cope with the negative stigma that comes with a situation that cannot be changed or even forgotten is an important and extremely relevant topic in stolen thunder literature. Law (2008) examined the stigma that a victim cannot help and was not his or her fault. In his study, it was revealed to participants that a potential sexual partner has HIV. In typical stolen thunder fashion, either the person revealed it himself, or someone else revealed his HIV status. Law hypothesized that participants would rate the man as more dateable if he disclosed that he had HIV than if someone else made the disclosure. Law found that the man was far more desirable in the control condition (no information about HIV status) than in any condition where the HIV status was revealed. However, Law did not find a statistically significant difference between his stolen thunder and stolen thunder conditions. Regardless of the mixed results, Law's study showed how people react when they are faced with damaging information that is not something that can be easily changed and it may be that participants believe that the stigma is, in part, the fault of the individual. This has significant bearing on stereotypical information about an individual, a central construct in the current study.

Behavioral Factors of Stolen Thunder

A question related to stolen thunder is the impact of information processing on stolen thunder. Because of how robust the effect of stolen thunder can be on an individual, a natural question is how one perceives stolen thunder. A 1981 study conducted by Wood and Eagly focused on the effectiveness of persuasive messages and how causal attributions and message comprehension influence persuasiveness. The researchers showed participants a photo of a man who was either for or against restricting pornography. The participants were then told whether or not the man was actively for or against the freedom of speech. The researchers hypothesized that if the participant received seemingly contradictory information about the man, he or she would rate the man as less likeable than if the information

was consistent. Wood and Eagly found that persuasion increased when the information was inconsistent, but not when it was consistent. Therefore, those who gave inconsistent information were viewed as more likeable because participants viewed the target individual as outside the pre-existing stereotype, which, Wood and Eagly found, is conducive to likeability. Similar results were found in a study conducted by Eagly, Wood, and Chaiken (1978). These studies show an important underlying concept in stolen thunder. The average person would expect the prosecution to reveal damaging information about a defendant; however, for a defendant to reveal damaging information about himself or herself is unique and, based on this research by Eagly and her colleagues, will cause the defendant to be viewed as more persuasive and therefore more likable. This opens up a new possible factor in the study of stolen thunder, likability. If a person is more likable he will be more persuasive and ultimately more likely to successfully steal thunder.

Stereotypes

A major factor in impression formation and ultimately likeability is whether or not a person is assumed to be a member of an individual's in-group or the individual's out-group. In-group and out-group research is a central theme of stereotype research. For example, Miller, Maner, and Becker (2010) studied perceptions of out-groups in a variety of ways, including styles of walking, stride, and masculinity of voice. The theory behind Miller et al.'s study is that those who are perceived as threatening will also be perceived as a member of an out-group, and that can be determined by walking style and direction, pitch of voice, and perceived anger. Consistent with their hypotheses, Miller et al. found that subjects who are viewed as more threatening by participants were believed to be members of a racial out-group. Those who are believed to be members of a racial out-group will have a more difficult time gaining the necessary likability as described in the Wood and Eagly (1981) study. Difficulty gaining necessary amounts of likeability will affect the ease in which one can create a positive impression.

According to psychologists, stereotypes are related to processing and cognitive resources; those with higher cognitive resources are able to focus more on a message and less on stereotype-consistent or inconsistent information in a message (Sherman, Lee, Bessenoff, & Frost, 1998). A study conducted by Wegner, Clark, and Petty (2006) was based on this assumption. They tested thoughtful versus non-thoughtful stereotyping. Thoughtful stereotyping, according to Wegner et al., is actively placing someone into a stereotyped group, whereas nonthoughtful stereotyping usually involves less attention to the stereotype and more to a secondary task, but stereotyping occurs regardless. Wegner et al. found that when a group of people thoughtfully stereotyped others, their opinion was less likely to be changed about the stereotype when presented with an exception to the stereotype than those who engaged in nonthoughtful stereotyping. This is directly related to the current study because this shows that if people have more cognitive resources, they are more likely to thoughtfully stereotype, and the stereotype will be stronger than those who engage in non-thoughtful stereotyping and have fewer cognitive resources.

Information processing in regards to stereotyping is a common vein of research for psychologists. Another venue

for information processing is the efficiency of processing, or how quickly one sorts information into stereotype-consistent and stereotype-inconsistent categories. Anderson, Klatzky, and Murray (1990) tested stereotype categorization efficiency in regards to task speed difference. They found that stereotypes act as a sort of quick categorization process for individuals. Participants were able to categorize sentences that were stereotype-consistent faster than sentences that were stereotype-inconsistent. Anderson et al. (1990) describe stereotyping as a mental shortcut. This mental shortcut can be applied successfully when information processing is low. If stereotypes are a mental shortcut, then participants should engage in more stereotyping under higher cognitive load.

Cognitive Load

Literature has focused on stereotypes in terms of information processing and cognitive load. It is theorized that the amount of cognitive load dictates the processing route, either central or peripheral, used to process a message. Those with higher cognitive load, the theory states, are more likely to process peripheral, or outside information about a speaker. Peripheral information includes race, tone of voice, and perceived likability. A study by Sherman, Lee, Bessenoff, and Frost (1998) focused on this mental shortcut in stereotype processing in relation to cognitive load. Participants were asked to memorize either an eight-digit number (high load) or no number at all (low load). Once participants were assigned to condition, they were given either stereotype-consistent or stereotype-inconsistent information about a target person who they then rated. The researchers found support for the "mental shortcut" theory of stereotyping. Those who were in the high cognitive load condition engaged in significantly more stereotyping than those in the low cognitive load condition because they had fewer resources to process the information.

The reason that stereotyping could be related so closely to cognitive load and information processing to create a mental shortcut is explained in a study by Chun and Kruglanski (2006). Chun and Kruglanski examined the effect of cognitive demands on information processing. Participants in their study were asked to differentiate information from a rather difficult task called the lawyer and engineer problem, creating a high cognitive demand. They were then asked to individuate information given to them after the task. Through a series of similar studies, Chun and Kruglanski found that those under higher cognitive demand were less motivated to individuate information than those under low cognitive demand. This shows the underlying processes behind the mental shortcut of stereotyping: Those who are under higher cognitive load will refer to a previously believed stereotype to quickly assess the individual in question without spending any precious cognitive resources. It is essentially an ease of individuating information for those under high cognitive load or simply for those who do not wish to put effort into the task.

However, there is one important possible caveat to using cognitive load as a manipulation of impression formation. That is the theory of need for cognition as proposed by Cacioppo and Petty in 1982. Need for cognition, as defined by Cacioppo and Petty is basically how busy or engaged people like to keep their minds. This is an important concept to take into account when manipulating cognitive load for several reasons. Possibly the most important reason is that if a participant has a higher need for cognition, he/she will be less

affected by being put under high cognitive load because of their higher need for cognition. Another possible reason would be that those who have an extremely low need for cognition may not even attempt the high cognitive load manipulation, therefore skewing data.

The Current Study

The current study combined stolen thunder, stereotyping, and cognitive load. Stolen thunder was predicted to reduce the negative information brought on by negative stereotypes whose effects were exacerbated or reduced, depending on whether the participant is under high or low cognitive load. The value of this study lies in the manipulation of perceived stereotype information. Also the study has the ability to show that stolen thunder can be applied to stereotype situations and can be aided by cognitive load. Prior studies in the field of both stereotype research and stolen thunder research have not looked at this area, making it a major gap in the literature for both.

Hypotheses

In the current study, participants either read a story about a man who revealed that he has been convicted of assault or displayed either stereotype-consistent or inconsistent information (e.g., socioeconomic status, music preference, etc.) (Stolen Thunder), read a story in which a narrator revealed that the man has been convicted of assault either fit or failed to fit with stereotypic information (Thunder) or read about a man who has not committed any crimes but either had stereotype-consistent or stereotype-inconsistent traits (No Thunder). To manipulate whether participants were using either central or peripheral route processing when hearing about the man's stereotype information, participants were put under either high cognitive load (peripheral processing) or low cognitive load (central processing). Measures of likeability, trustworthiness, reliability, and confidence were taken (Williams et al., 1993).

Based on the literature, it was hypothesized that the target individual would be rated as more likeable, reliable, and confident in the no thunder condition than in the thunder and stolen thunder conditions. He would also be rated as more likeable in the stolen thunder condition than in the thunder condition. It was also hypothesized that participants with a high cognitive load would focus more on stereotype-consistent information and less on the message itself. The participants who received information about the man in the stereotype-consistent categories were predicted to perceive the man as guiltier than those in the stereotype-inconsistent category. Also, those in the high cognitive load conditions were predicted to, across every condition, rate the target individual as less likeable, trustworthy, and confident because those in the high cognitive load were predicted to not pay as much attention to the message and would instead, focus primarily on the stereotype. However, those in the low cognitive load condition were predicted to, across every condition; rate the target individual as more likeable, trustworthy and confident. An interaction between thunder, stereotype information, and cognitive load was hypothesized, such that stereotype consistent information would negatively affect the impact that stolen thunder had on an individual, while stereotype inconsistent information would positively impact the effect that stolen thunder information had on an

individual. These processes were all predicted to be mediated by the cognitive load of the individual. Those under high cognitive load would be generally more affected by the stereotypic information, and would therefore rate the man as significantly more likable in the stereotype-inconsistent condition and significantly less likable in the stereotype-consistent condition. It was also hypothesized that those who score high on the Need for Cognition scale would not be as affected by the cognitive load manipulations than those who score low on the Need for Cognition scale and would therefore rate the man more likeable, trustworthy, and confident in both the no thunder and stolen thunder conditions.

Method

Design

This study was a 3 (Stolen Thunder/Thunder/No Thunder) x 2 (High Cognitive Load/Low Cognitive Load) x 2 (Stereotype Consistent/Stereotype Inconsistent) between subjects design with a covariate of Need for Cognition.

Participants

Participants were 120 undergraduate students from a private college in rural western Pennsylvania. The mean age of the participants is 20. To the extent possible, participant gender was balanced across all conditions. There was no incentive for participation in this study. Participants were informed that they were allowed to leave the study at any time with no repercussions. E-Prime 2.0 (Schneider, Eschman, & Zuccolotto, 2002) was used to randomly assign participants to the conditions of the study. All participants were informed that they were treated ethically by use of an informed consent form (American Psychological Association, 2011; Appendix A).

Materials and Apparatus

The experiment was created using E-Prime 2.0 (Schneider, Eschman, & Zuccolotto, 2002), a stimulus presentation program. A Dell Optiplex 760, running with a Windows 7 operating system, with a 14-inch flat screen monitor was used to run the E-Prime program. The text on each E-Prime slide was centered on the screen in black, 14-point Arial type font. Each slide had a neutral white background.

Participants were asked to rate an African American individual on scales of perceived guilt, credibility (Williams et al., 1993), likeability, reliability, trustworthiness, honesty, and sincerity (Howard et al., 2006) on several 7-point Likert scales (where, for example, 1=*Very Trustworthy*, 7=*Not At All Trustworthy*). The Need For Cognition (NFC) scale was also used to test the level of participant's need for cognition (Cacioppo & Petty, 1982; Appendix B). The NFC scale is an 18-item Likert-type questionnaire that has good reliability ($\alpha=.90$). Participants responded to statements by using a scale from 1 (*extremely uncharacteristic of you*) to 5 (*extremely characteristic of you*). As a manipulation check, participants were asked to write about the man's offence and characteristics. The stereotypical information that was given to each participant was determined by a pilot study.

Pilot Study

A pilot study was conducted to determine which traits are considered to be consistent with African American stereotypes. A sample of 10 undergraduate students drawn from the same population as those in the sample participated in the pilot study. Each participant was shown a list of 32 racially ambiguous words (Appendix C) and was asked whether or not those words were consistent or inconsistent with the current stereotype of African Americans, Mexicans, Caucasians, and Asians. These words included not only possible descriptive words of the racial groups, but also music preference. The participants were shown each of the 32 words and asked to rate each word on a scale from 1 (*Stereotype Consistent*) to 5 (*Stereotype Inconsistent*). The top five traits that participants rated as most stereotype-consistent of African Americans (i.e., Enjoys Rap, Basketball player, Low Socioeconomic status, tall, and loud) and the top five traits that participants rated as most stereotype-inconsistent of African Americans (i.e., Short, Chess player, Quiet, High Socioeconomic Status, and likes Country music) were used in the main experiment. Participants were also given an opportunity to write what they perceive to be the African American stereotype. The stereotype information that participants revealed in the essays mostly aligned with how they responded to the list of traits. However, there was not a strong enough occurrence of a word that was not on the original list of 32 words to merit a new stereotype trait on the list.

Procedure

Upon entering the lab, participants were given an informed consent form, along with a general oral description of their tasks. Participants were reminded that their involvement was completely voluntary and that they were able to terminate their participation at any time. After they read and signed the informed consent form, participants were randomly assigned to conditions. The participants were seated at a computer station where they began a cognitive load induction. In the low cognitive load condition, a two-digit number (e.g., 24) was presented on the monitor for participants to memorize; in the high cognitive load condition, participants were asked to memorize two eight-digit numbers (e.g., 24896547 and 53587912; cf. Sherman, Lee, Bessenoff, & Frost, 1998). The numbers that the participants were to memorize were shown on screen for exactly 10 seconds, allowing time for memorization. Then, participants were told that they would be tested on this information later in the study. Once the cognitive load task was given, an instruction slide containing information about a vignette that they were going to read was presented. Participants were told that they would be asked to respond to questions regarding the content of the vignette. Depending on their condition, participants read one of three vignettes. One contained information about an African American man exhibited traits that were either consistent or inconsistent with the current African American stereotype (No Thunder; Appendix D); another contained information about the same African American man with the same manipulation of stereotypic information, but it was revealed that he had committed an act of violence (Thunder; Appendix E); and a final vignette containing similar

information about the African American man, but he himself admitted to the act of violence (Stolen Thunder; Appendix F).

After reading the vignettes, participants were given a series of Likert-type scales rating various aspects of the individual's personality, including stereotype information and criminal activity. Immediately following the scales, a brief manipulation check was conducted. Participants first described the African American man and then listed his offence. Once the manipulation check was completed, the participants completed the NFC scale (Cacioppo & Petty, 1982). The NFC scale was counterbalanced between participants; some participants took the scale just before reading the vignettes and rating the individual, and others completed the scale just after. Upon the successful completion of the study, participants were fully debriefed and thanked for their participation (Appendix G).

Results

The analyses first focused on participants' overall impression of the African American target. First, correlation analyses were conducted. Participants' ratings of guilt were positively correlated with their perception of possible friendship, $r=.42$, $n=105$, $p<.05$; how honest they perceived the individual, $r=.32$, $n=105$, $p<.05$; and success scores $r=.26$, $n=105$, $p<.05$. There were also positive correlations between likeability and perception of possible friendship scores, $r=.31$, $n=105$, $p<.05$. The question of friendship ratings were also positively correlated with the honesty score $r=.42$, $n=105$, $p<.05$ and perceived success score $r=.40$, $n=105$, $p<.05$. There was also a positive correlation between participants' honesty ratings and their perceived success scores $r=.51$, $n=105$, $p<.05$. Then, an overall impression score was taken for the individual by combining the participants' Guilt score, Trust score, Likeability score, Friend score, Confident score, Honesty score, and Success score ($\alpha=.86$). The participants' overall impression of the individual as determined by thunder condition found no significant results $F(2,102)=.08$, $p=.93$.

To test the hypothesis that the individual would have an overall more favorable impression depending on thunder condition, a series of ANOVAs was conducted. The first test, that the overall impression of the individual would vary by thunder condition, yielded no significant differences $F(2,102)=.08$, $p=.93$. The hypotheses that stated that target individual, in the thunder condition will be rated less likeable $F(2,102)=1.43$, $p=.24$, and successful $F(2,102)=1.92$, $p=.15$ than in the no thunder condition were not significant. However, there was a significant difference on honesty scores in the no thunder condition ($M=5.286$; $SD=1.202$) as compared to the thunder condition ($M=4.40$; $SD=.98$) $F(2,102)=7.23$, $p<.05$, partial $\eta^2=.12$. Similar results were also found for the participants' friend scores for the no thunder ($M=4.657$, $SD=1.282$) by thunder ($M=3.550$, $SD=1.600$) condition $F(2,102)=4.94$, $p<.05$, partial $\eta^2=.09$.

An ANOVA was conducted to further explore the significance of the African American man's perceived honesty. It was found that the only significant perceptions of honesty were in the thunder condition, $F(2,102)=7.06$, $p<.05$, partial $\eta^2=.01$ and the intercept between cognitive load and thunder condition $F(2,102)=1615.99$, $p<.05$, partial $\eta^2=.90$. Aside from those two points, there were no other significant interactions. There was also significant findings for the

individual's ratings of guilt and thunder condition, $F(2,102)=8.17$, $p<.05$, partial $\eta^2=.02$ as well as the intercept between cognitive load and thunder condition $F(2,102)=824.20$, $p<.05$, partial $\eta^2=.81$. The most important finding of the study, though, is the significant interaction between the thunder condition and the stereotype condition in relation to guilt scores $F(2,102)=8.35$, $p<.05$, partial $\eta^2=.02$. The relationship between thunder condition and stereotype by way of guilt scores are shown in Figure 1.

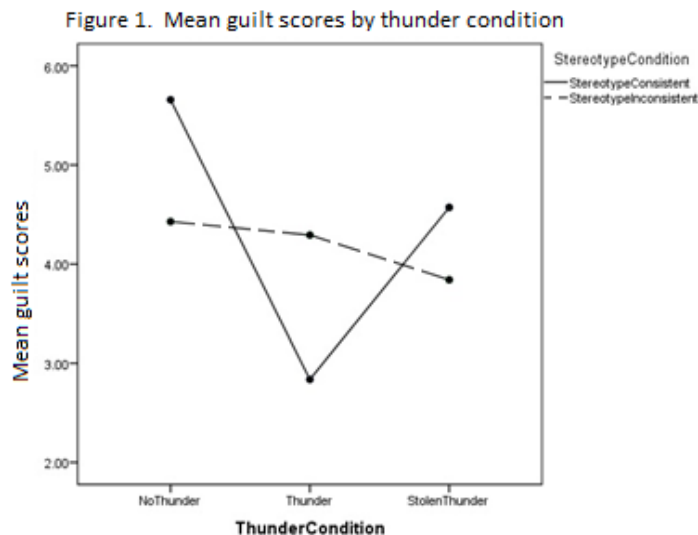


Figure 1: Thunder condition as function of guilt scores by stereotype condition is shown.

The obvious relationship between stereotype and thunder condition is highlighted in Figure 1, as well as beginning trends in the Stolen Thunder conditions. Despite this significance, there were no significant differences in the intercept between the thunder condition, cognitive load condition and stereotype condition. The final test was that of the Need for Cognition scale as a moderator between cognitive load and thunder ratings. The data yielded no significant differences.

Discussion

The current study sought to examine the relationship between stolen thunder, stereotypes, and cognitive load on impression management. It was hypothesized that when the target of judgment has not been accused of a crime (no thunder condition), he would be rated as more likeable, honest, and trustworthy. However, when the target individual revealed that he had committed a crime (stolen thunder condition), he would be rated more likeable, honest and trustworthy than when it was revealed that he committed a crime by an outside source. It was found that the overall impression of the target individual did not vary as a function of stolen thunder. This does not line up with the findings of Williams et al. (1993) who reported that in the stolen thunder condition, the target individual was rated overall more positively than in the thunder condition, A possible explanation for these discrepant findings is that Williams et

al. focused on a courtroom setting and placed the participants in the role of a jury member who was to decide the target individual's fate. In contrast, participants in the current study rated the individual on a personal level. The difference, then, is between a professional relationship and a personal relationship, which are very different in nature.

Perhaps the most important finding was the effect of stereotypes and thunder condition on guilt scores. It was predicted that when the target individual revealed both the stereotype information and the transgression himself (Stolen Thunder) that he would be rated as less guilty of the crime. It was found that when the target individual had stereotype-inconsistent qualities and he revealed that he was convicted of assault, participants rated him as less likely to have committed the crime than if the target individual had stereotype-consistent qualities and revealed that he was convicted of the crime. This finding shows support for using stolen thunder as an impression management tactic, as discussed in McElhaney's (2005) trial book. Successfully employing stolen thunder to lower guilt ratings was also found in Williams et al. (1993) and Wood and Eagly (1981). The study conducted by Sherman et al. (1998) suggested that stereotypes play a role in impression management; these findings are extremely similar to the results of the current study. A major factor in the participants perceived guilt of the target individual was whether or not he possessed stereotype-consistent or stereotype-inconsistent characteristics.

Unfortunately, there was no significant effect of cognitive load on impression management. It was predicted that participants in the high cognitive load category would, across all conditions, rate the target individual less positively than those under low cognitive load. These findings, despite not being consistent with what was hypothesized, line up with Howard et al.'s (2006) findings. Howard et al. found that when participants are unable to completely process the target individual's message, the concept of stolen thunder does not work in favor of the target individual as it does in most other cases. This is strong support for why this manipulation may not have been as effective an indicator of impression formation because of cognitive load's pairing with stolen thunder. Because of the lack of significance in the cognitive load manipulation, there was no three-way interaction between stolen thunder, stereotype-consistency, and cognitive load.

The last hypothesis stated that participants' need for cognition would affect the cognitive load conditions, such that those with higher need for cognition scores would be less affected by higher cognitive load yielded no significant differences. NFC did not act as a covariate between the three different constructs as predicted. The NEF scores also did not make up for the differences in participants' responses to the cognitive load manipulation. This, of course, went against the Cacioppo and Petty (1982) study that first suggested NFC as a mediator for cognitive load. One possible explanation for this could be the sample used for the study. Participants in this study attended a small, private, liberal arts college; it could be possible that the attendees of this college, as well as many other colleges, would score higher on NFC scales. The fact that the participants go to college is a possible indicator of need for cognition to begin with, which could have caused a ceiling effect in the NFC scales, making any differences non-significant.

This study is not without its limitations. One major limitation of the study could possibly be the cognitive load manipulations. Cognitive load was manipulated by the participant memorizing either a 2-digit number or a 16-digit number. There was some concern that a simple eight-digit number, as found in Howard et al.'s (2006) study would not be a strong enough manipulation of cognitive load, so the number was increased to two eight-digit numbers. This may have been too much for the participant to attempt to memorize. There is a very real possibility that the participants in the high cognitive load condition were too intimidated by the number and simply did not memorize it, which would explain why no main effect of cognitive load was found.

Another possible weakness of this study was the problem that arises from simply doing a study that presents manipulations through vignettes. Participants naturally questioned the nature of the vignettes. Some participants even asked if the target individual described in the vignette was real or not. This was an indication that participants did not quite believe that the vignette was describing a real person, making each of their judgments on the target individual far less meaningful than it would have been if they had believed that the target individual described in the vignette was more believable.

A final possible weakness for this study was a problem that appears in stolen thunder research, and that is the problem with the transgression that the target individual reveals. In the current study, the target individual reveals that he has been convicted of assault. The potential problem is that the transgression could be so negative that stolen thunder is useless. There is a possibility that the participants found assault to be too harsh a potential crime to let the effect of stolen thunder actually work.

Despite its few weaknesses, the current study does have strengths. First and foremost, it is an extremely unique study. It is one of the first of its kind to compare stolen thunder, stereotypes and cognitive load. Because it is the first to combine these three very different concepts into the overarching theme of impression management, the fact that two of the three constructs affect each other in a statistically way makes it a strong study.

Another strength of the current research is the manipulation of the stereotype characteristics. The data did show a significant main effect for stereotype manipulation by guilt scores; this shows that the two different stereotype conditions were effective manipulations. A large part of the success of the stereotype manipulations was the pilot study that was conducted. The pilot study yielded strong results for both stereotype-consistent and stereotype-inconsistent manipulations because they were strong manipulations in the study itself.

The current study brings up a lot of interesting points about the underlying factors of impression management. Future research could go in a couple of different directions. First, to solve the potential problem of the thunder condition, a different sort of transgression or negative information is recommended. There has not been one definite level of negative information that has worked consistently throughout stolen thunder research. More research is definitely warranted to tease apart the seemingly delicate difference between information that is too negative and information that is not negative enough.

Another direction for future research could be using a different distractor task to manipulate cognitive load. Williams et al. (1993) successfully manipulated a distractor task for participants by altering the number of confusing adjectives used and the speed in which in each of the participants heard a person's testimony involving stolen thunder. This sort of manipulation may be an improvement on the simple number memorization task that did not seem to work at all in the current study. Perhaps distractor tasks while attempting to interpret the information would be a better manipulation of the dispersion of cognitive resources.

Overall, the current research adds a great deal to the current literature not only in the field of stolen thunder, but to the field of stereotype research as well. The study shows that the consistency of stereotype traits, as well as owning up to potentially damaging information play a major role in impression formation. This study also has real-world applications. Not only does the current research apply to courtroom tactics, as is typical for stolen thunder research, but it also adds to the realm of interpersonal relationship formation. The current study attempts to find several different factors that could lead to either a positive or negative impression of an individual and, in fact, it shows that stereotype consistency and willingness to reveal damaging information before it is discovered are two factors. Results from the current study have the potential to be applied to numerous social settings, but more importantly, they can be applied to the public arena. If a person in the public's eye has a potentially damaging secret, according to the results of this study, it is better for that person to share the information.

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