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Metaphorically Framed Stereotypes, Victim Race, and Attitudes Toward Police: Factors
Influencing Juror Cognition and Decision-Making in Police Force Cases

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Abstract

In addition to structural issues within the U.S. justice system, psychological factors contribute to the recent pattern of non-indictments of police officers tried for potential uses of excessive force against Black people. This paper examines the effects of metaphorically framed racial stereotypes and victim race on juror cognition, reasoning, and decision-making. A study was administered via Amazon Mechanical Turk to 420 White participants. The hypotheses were tested using a 3 (Black stereotype metaphors vs. non-stereotypical race-neutral dehumanizing metaphors vs. non-metaphoric semantically similar descriptors) x 2 (race of victim of police violence: White vs. Black) factorial design. While no significant effects of metaphor were found, the experiment identified significant main effects of race and general attitudes toward police as well as interactions between the two. When the case involved a Black victim as opposed to a White victim, participants were more likely to confidently vote against the indictment of the police officer and rate the police officer's actions as more justified and use of lethal force as more necessary. The involvement of a Black victim also strengthened the relationship between favorable attitudes toward the police and pro-police ratings and decision-making.

Metaphorically Framed Stereotypes, Victim Race, and Attitudes Toward Police: Factors Influencing Juror Cognition and Decision-Making in Police Force Cases

In 2015, 102 unarmed Black individuals were killed at the hands of the police. This means that nearly two unarmed Black people were killed per week. When adjusted by population count, studies report that unarmed Black men were five to seven times as likely as unarmed White men to be fatally shot by a police officer (Mapping Police Violence, 2015; Lowery, 2016). Out of the 102 incidents, only 10 culminated in criminal charges, and in only 2 of the killings were the officers convicted (Mapping Police Violence, 2015).

There are several possible factors that account for why so few officers are indicted or convicted in instances concerning police killings of unarmed Black individuals. First, there is a systemic problem with the role of prosecutors in cases involving criminal charges brought against police officers. The prosecutor works alongside local law enforcement, often in shared office space, relying on the help and cooperation of the police to get their job done. Conflicts of interest arise when prosecutors work on cases involving police suspects. This is because prosecutorial bias is more likely when securing an indictment endangers the prosecutor's relationship with the police department, with whom they work closely and on whom they rely to fulfill their occupational duties. The prosecutor's responsibility is simple: to secure an indictment. Yet, while non-police suspects are indicted in 90% of killings, the indictment rate for police officers is under 1% (Fischer-Baum, 2014). Second, the inclination of jurors to trust testimony provided by police officers may in part explain the difficulty of indicting police suspects, who, for many, represent authority, safety, and trustworthiness. Surveys of jurors suggest that among different types of experts brought into court, police officers are viewed as the most likable, understandable, believable, and confident, as well as the least dishonest (Linz &

Penrod, 1982; Groscup & Penrod, 2003). Moreover, in cases of this nature, the victims are deceased and thus unable to testify.

This paper focuses on the psychological factors that influence jury decision-making. Cultural expectations, stereotypical associations, and racial biases undoubtedly shape jurors' perceptions of cases involving Black people. Additionally, prosecutors may urge police officers to manipulate the content, temporal, and lexical structure of the information in their testimony in order to persuade jurors to decide in their favor. This paper discusses past studies and introduces empirical research in order to understand the effects of exposure to metaphors that contain negative stereotypes about Black people on jury decision making. To this end, I first provide a review of the relevant body of literature, specifically discussing research on cultural expectations and racial stereotypes, current perceptions of police within the United States, the persuasive powers of metaphors, the use of metaphor in legal settings, and the cognitive effects of metaphors and metaphorically framed stereotypes. The methodology and results of the present study are subsequently articulated.

Cultural Expectation and Racial Bias

Racial biases have an impact on how jurors think about cases involving Black victims. In 1918, Whipple stated that "observation is peculiarly influenced by expectation...We tend to see and hear what we expect to see and hear" (pp. 228). Loftus (1996) built upon this concept in identifying of four types of expectations that shape perception: cultural expectations or stereotypes, expectations from past experience, personal prejudices, and momentary temporary expectations. In the context of altercations involving White police officers and Black victims, cultural expectations or stereotypical associations are most relevant. These expectations and

associations tend to shape observation and thus play a critical role in the decision-making processes of jurors.

Research indicates that Black people are often associated with subhuman or superhuman qualities. Goff, Eberhardt, Williams, and Jackson (2008) found that Black people are implicitly associated with apes. This association is significant as it challenges the extent to which society sees Black people as human (Hall, Hall, & Perry, 2016). The consequence of this dehumanizing association is elucidated by the finding that when primed with ape-related words, people are more likely to excuse cruelty toward Blacks (Goff, Eberhardt, Williams, and Jackson, 2008). In Waytz, Hoffman, and Trawalter's study (2015), White participants' beliefs that Black people had higher pain thresholds were found to underlie their conceptions of Black people as being superhuman. If Black men are seen as indestructible or less vulnerable to injury, it may be easier for Whites to justify violent or deadly acts against them.

Multiple studies have reported a prevalent cultural expectation for Blacks to be armed as well as a strong association between Blacks and crime or violence (Allport & Postman, 1947; Payne, 2001, Correll, Park, Judd, and Wittenbrink, 2007). Allport and Postman (1947) illustrated the effects of cultural expectation in an experiment in which they exposed a highly diverse group of subjects to an image of a New York subway train full of people, two of which were standing up and interacting. The two people standing were both males: one was a Black man wearing a tie and the other was a White man holding a razor blade. In more than half the experiments with this image, subjects believed that the Black man, rather than the White man, was holding the razor, and often, the Black man was described as "brandishing it wildly" or as "threatening the White man with it" (pp. 57). Moreover, Duncan (1976) found that when participants were shown an interaction in which one person shoves another, they tended to regard the person shoving as more

violent when he was Black than when he was White. Eberhardt, Goff, Purdie, and Davies (2004) found that not only are Black faces more likely to be judged as criminal than White faces but the most stereotypically Black looking faces are the most likely to be judged as criminal. Based on their research, Eberhardt et al. (2004) concluded that the automatic stereotyping process extends further to a bidirectional association. In other words, for many White jurors, merely visualizing a Black man may not only trigger thoughts that he is violent and criminal, but thoughts about crime and violence may also trigger visualizations of Black faces. Assessing these bidirectional processes in the context of jury sentencing, Eberhardt, Davies, Purdie-Vaughns, and Johnson (2006) found that when jurors are considering the death penalty for cases in which a Black defendant is charged with murdering a White victim, the degree to which a defendant appears stereotypically Black influences sentencing decisions. Perceived stereotypicality did not, however, predict death sentencing in cases involving a Black defendant charged with murdering a Black victim. These results convey that in interracial (i.e., Black defendant/ White victim) cases, Black features seemingly function as strong indicators of “deathworthiness” (pp. 385). Consequently, in cases involving a White police officer’s use of excessive force against a Black man, jurors might be expected to deem victims that look stereotypically Black as “deathworthy,” thus justifying the White officer’s employment of deadly force.

The aforementioned studies demonstrate the strength of the stereotypical associations between Black features and criminality, violence, and non-human characteristics. These stereotypical associations likely factor into the way jurors perceive cases.

Perceptions of Police

Jurors’ attitudes toward police officers influence their perceptions of police force cases. According to several 2016 polls (Gallup, Cato Institute/ YouGov, Pew Research Center), most

Americans report pro-police attitudes. The majority of Americans have a “great deal” of respect for the police (76%), feel confident in the police (56%), highly rate police officers with respect to honesty and ethical standards (56%), and think officers are too often faced with disrespectful and uncooperative citizens (58%) (McCarthy, 2016; Newport, 2016; Ekins, 2016).

There are stark differences, however, in the attitudes of Black and White Americans. White people generally tend to have more positive perceptions of the police than Black people, with 68% of Whites versus 40% of Blacks reporting favorable attitudes toward the police, 58% of Whites versus 29% of Blacks reporting a “great deal” or “quite a lot” of confidence in police, and over three-quarters of Blacks but less than half of Whites finding the U.S. Justice system to be biased (McCarthy, 2016; Newport, 2016; Ekins, 2016). Black Americans are about half as likely as Whites to perceive the work that the local police do positively, specifically with respect to appropriate use of force, equal treatment across racial/ ethnic groups, and holding officers accountable for their misconduct (Morin & Stepler, 2016). Blacks are also 25% more likely to explain recent deaths of Black people at the hands of the police as larger societal issues than independent incidents (Pew Research Center, 2016). Black (61%), Hispanic (61%), and Democratic (61%) Americans more frequently report that police officers believe themselves to be above the law than Whites (46%) and Republicans (36%) (Ekins, 2016). Further divergences arise by political affiliation, as Republicans more frequently hold positive perceptions of police than Democrats (Ekins, 2016). While there are some demographic differences, police are generally seen favorably, and therefore their testimony will carry a great deal of weight among jurors.

Metaphors Are Persuasive Linguistic Tools

In addition to preexisting racial biases and perceptions of the police, using metaphors in testimony may also influence how jurors think and reason about cases. Metaphors are defined as “figures of speech in which relatively concrete, tangible concepts [source concepts] are used to represent more abstract concepts [target concepts]” (Landau, Robinson, & Meier, p.4, 2014). In other words, metaphors provide a non-literal means of describing one thing in terms of another (Landau et al., 2014). By generating conceptual maps, metaphors enable people to systematically connect their knowledge of the features, properties and relations of target and source concepts in a manner that informs how they think, feel, and act in relation to the target concept. As a result, when jurors hear metaphors in oral testimony, the conceptual maps invoked by the metaphors shape cognition and ultimately, decision-making.

When used in court, metaphors do not simply function as poetic embellishments; rather, they are persuasive social tools that shape the cognitive lens through which jurors make sense of evidence presented in testimony. Metaphors paint a vivid picture for jurors, influencing their interpretations of what happened (Bullis, 2014). At once, metaphors effectively convey otherwise inexpressible combinations of concrete and abstract information in a concise and relatable fashion (Mass, Suitner, & Arcuri, 2014). This may account for why English speakers use about one metaphor for every 10 to 25 words, or approximately six metaphors per minute and why studies repeatedly show that metaphors have a strong impact on the way that humans think and reason (Geary, 2011).

Keefer, Landau, Sullivan, & Rothschild (2011) found that after people are primed with uncertainties related to important elements of their lives, they depend to a greater extent on metaphors to make decisions. This suggests that metaphors may aid in difficult decision making

by reducing uncertainty. Consequently, it is likely that jurors, who are uncertain about the details of the event they are meant to assess, will rely more heavily on metaphors in order to come to a decision. Allbritton (1995) proposed that metaphors generate feelings of intimacy and closeness by emphasizing shared knowledge between speakers and listeners. One implication of these findings in the context of jury proceedings is that when metaphors are used in a police officer's testimony, jurors will feel closer to the Officer, which may cause them to vote against the indictment. Thibodeau and Boroditsky (2011) found that after being exposed to a metaphor, including single noun metaphors (e.g., *crime is a virus*), participants assimilated all subsequent information into the metaphorical framework, regardless of self-reports in which many participants claimed that the metaphors did not have an impact on them. Based on their findings, Thibodeau and Boroditsky (2011) drew a comparison between metaphors and schemas, stating that the process that enables metaphors to shape thinking, interpretation, and memory is akin to the functions of schemas, scripts, and frames. For jurors, exposure to metaphors may evoke systematic associations that shape their perceptions and recollections of evidence discussed in the testimony. By providing specific structures for processing subsequent knowledge, even cursory and seemingly inconspicuous metaphors in testimony have the capacity to influence decision-making. Consequently, metaphors presented early in jury proceedings may have the greatest impact.

Metaphor Use in Legal Settings

It is generally understood and accepted by the public that lawyers frequently use analogies in order to convince judges and juries to support their argument (Hunter, 2004). It is less frequently acknowledged, however, that metaphors, similar to analogies, are also employed in these settings. This may be the case because metaphors are comparably more subtle,

inconspicuous, and fleeting than analogies. Yet, it is these features of metaphors that empower them even more. It is the compact and inherently sensorial or experiential quality of metaphors and the fact that they so often go unnoticed that render them influential. Lawyers are often instructed throughout law school, additional training, and by consultants to employ metaphors as useful rhetorical tools that can alter the outcome of court procedures. Capturing and holding the attention of juries, metaphors can effectively emphasize particular elements of a concept while concealing others (Ebbesson, 2008; Bullis, 2014). Lawyers and trial consultants commonly advise those providing testimony to introduce metaphors at trial openings and closings as means of concisely and persuasively articulating the potency of one's own narrative as well as the shortcomings of the opposing one (Bullis, 2014; Ebbesson, 2008, Hunter, 2004). These strategies are consistent with neurological and psychological findings regarding the cognitive effects of metaphors. For example, lawyers are trained to introduce metaphors during openings because this creates new neural pathways for considering a case (Bullis, 2014). Bringing a new and compelling metaphor into the courtroom can lend entirely new meanings to issues, replace jurors' conceptions of events, and justify certain decisions. For example, in a Virginia criminal case, the prosecution's forensic scientist described DNA evidence as a *blueprint* for the body. The *blueprint* metaphor was clear, concise, and comprehensible and thus provided the jury with a new means of understanding the complex concept of DNA (Bullis, 2014). Yet, in an article published by the American Society of Trial Consultants, Bullis (2014) offers a strategy to contradict and replace an effective metaphor. He turns the *blueprint* metaphor on its head, while introducing a new *gun* metaphor, in the following hypothetical statement by the defense.

DNA is not destiny. DNA doesn't determine everything. It is like the first page of a blueprint, [which] only shows the outside of a building, the facade. Even genetic

scientists say that while genes “load the gun,” culture “pulls the trigger.” So DNA evidence doesn’t determine a person’s motive... (p. 3).

Evidently, if lawyers have a grasp of when and how to introduce effective new metaphors and counter metaphors, they can to some extent control narratives and how information is processed.

Case Study: *State of Missouri vs. Darren Wilson*

Though most grand jury proceedings remain confidential, one notable jury transcript that has been released is from *State of Missouri vs. Darren Wilson*. The case, which involved a fatal altercation between a White police officer named Darren Wilson and a Black, unarmed 18-year-old named Michael Brown, concluded in a non-indictment. Allowing a glimpse into territory that is typically inaccessible to scrutiny, this transcript offers a view of the information that is presented in these proceedings and how such information is framed.

Despite the fallibility of human memory, eyewitness testimony is relied upon heavily by jurors in their decision-making, a process that is in itself highly susceptible to manipulation (Engelhardt, 1999). Guided by interpretation, memories are innately distorted. Consequently, memories can never function as objective documents of the past. Rather, the tendency for people to falsely remember events and details that did not happen, the vulnerability of memory to biases, and the way in which memory is affected by retelling (Loftus, 1974; Tversky & Marsh, 200; Engelhardt, 1999) all render eyewitness testimony unreliable as a source of evidence.

In addition to the already troubling quality of this kind of testimony, racial stereotypes pervade the *State of Missouri vs. Darren Wilson* transcript, and in numerous instances, these stereotypes are provided in the form of metaphors. The previously articulated stereotypes that link Black features to criminality and violence as well as subhuman and superhuman traits may have been influential in the *State of Missouri vs. Darren Wilson* grand jury proceedings. With

nine White jurors, three Black jurors, and nine votes needed to indict the officer, the aforementioned stereotyping processes may have played a significant role in the outcome. According to Thibodeau and Boroditsky (2011), metaphors presented early in proceedings should have the greatest impact. Interestingly enough, Darren Wilson was the first to testify before the jury. Wilson's testimony provided a series of metaphors intrinsically tied to racial stereotypes. Brown was described as a "demon," as "Hulk Hogan," and as a charging "football player [with] his head down," all of which reference a long history of the spectacularization and dehumanization of the Black body. These metaphors may have subsequently enacted a filtering effect that caused jurors to interpret subsequent information according to the metaphorical framework, and ultimately vote in favor of the officer.

Metaphors, Stereotypes, and Metaphorically Framed Stereotypes

The cognitive functions of stereotypes and metaphors are similar. Stereotypes often guide perception of events, just as metaphors turn attention to particular elements while filtering out others (Allbritton, 1995). Given the strikingly similar powers of metaphors and stereotypes, it is expected that metaphorically framing stereotypes will considerably enhance their effects (Maass et al., 2014).

In intergroup settings, metaphoric language has been shown to influence multiple phases of social cognition, such as categorization, perceptions of homogeneity, and stereotyping (Maass, Suitner, Arcuri, 2014). Defined by Glucksberg (2008) as categorical assertions, metaphors play a critical role in social categorization. Jones and Estes (2005) demonstrated how metaphors promote the incorporation of stimuli in a given category through their finding that after receiving metaphorical primes, people are more likely to incorporate target words in the category alluded to by the metaphor. For example, when subjects received the prime *argument is war*, it made the

target word *argument* more likely to be incorporated in the *war* category than when subjects were primed with the literal version, i.e., *that argument started a war*. Considering these findings in the context of social targets, it is reasonably expected that using metaphors would render it more likely for a target person to be categorized in relation to a social group and consequently associated with stereotypical attributes of that group (Jones & Estes, 2005).

The ability of metaphors to initiate categorization arises from their power as verbal labels. It is known that categorization increases perceptions of group homogeneity. In the context of social membership, categorization often leads to members of the same group being seen as more similar than members of different groups, even when subjects are randomly assigned to categories. In a study by Foroni and Rothbart (2011), participants first observed female silhouettes varying from very slim to greatly overweight and then rated pairs of target females on the extent to which they were similar. According to their results, not only did perceptions of similarity increase when two targets were included under the same label, but also according to the strength of the verbal label (e.g., perceptions of similarity were greater when included within the label *anorexic* as opposed to *below average*). Metaphors serve as stronger categorical labels than non-metaphoric equivalents because the characteristics that they bring to mind are broader yet more precise than non-metaphoric equivalents. Metaphoric categorical labels imply homogeneity across all members of a category and provide a vivid and distinct picture of relevant characteristics. Consequently, metaphors may increase the likelihood that a group member will be placed in a given category, while non-metaphoric equivalents may prevent the inclusion of some members. Meanwhile, the specific set of characteristics that a metaphor delineates is vivid and distinct, which helps establish group homogeneity. This idea is illustrated Maass, Suitner, and Arcuri's study (2014) in which participants read a description containing

either metaphoric or semantically similar non-metaphoric statements about a lawyer and a politician. The lawyer was portrayed as either a *shark* or *unscrupulous* and the politician was portrayed as either a *fox* or *shrewd*. Participants were then asked to assess what proportion of all lawyers or politicians were similar to the target described in the passage. For both the lawyer and the politician, those in the metaphor condition regarded the social category as more homogenous than those in the non-metaphor condition. This finding indicates that metaphors increase perceived homogeneity of outgroups (Maass et al., 2014).

In addition to fueling categorization and enhancing the perceived homogeneity of categories, metaphors also direct stereotypical inferences. Metaphors efficiently integrate the categorical information that is verbally communicated by a stereotype and the emotional and sensorial clarity that characterizes people's' actual perceptual experiences. Social metaphors, e.g., *lawyers are well-paid sharks* (Glucksberg, 2008; Maass et al., 2014), serve as linguistic tools that enable people to concisely and effectively convey a set of characteristics linked to a stereotype (Maass et al., 2014). No literal relationship exists between the two concepts involved in the metaphoric association of the source *shark* and the target category *lawyers*. *Shark* references predators, a category whose characteristics are applied to the target category, *lawyers*. When this metaphor is used, the characteristics of lawyers that also relate to predators come to mind. Meanwhile, other traits that are common among lawyers are ignored or dismissed. The result is an impression of the entire category of lawyers as homogenous, devoid of exceptions, and defined solely by the metaphor. Mass et al. (2014) describe three major differences between expressing stereotypes through a metaphor as opposed to a list of traits. First, single word metaphors (e.g., *a lawyer is a shark* or *a Black person is an ape*) provide a wide range of information that would otherwise need to be articulated one at a time. This enables metaphors to

most productively communicate stereotypes because they bear an efficient synthesis of the most pertinent elements. Second, metaphors in the form of nouns catalyze stereotypical conclusions more than semantically similar lists of traits do (Carnaghi, Maass, Gresta, Bianchi, Cadinu, & Arcuri, 2008). Third, metaphors generate more powerful stereotypical conclusions than do comparable lists of traits, as metaphoric nouns offer either-or statements (e.g., a Black person is either an ape or is not), while trait adjectives offer varying degrees (e.g., a Black person is more or less wild or animalistic). Maass et al. (2014) also explored the differences in the effects of metaphoric and non-metaphoric descriptions, using the *lawyer/shark* and *politician/fox* examples. They found that the extent to which targets were perceived in accordance with the stereotype-relevant characteristics varied with respect to whether the description was provided via metaphor (e.g., *shark*) or non-metaphoric trait descriptions (e.g., *unscrupulous*). These results imply that metaphors serve as potent vehicles for communicating stereotypes, as audiences tend to make more powerful stereotype-consistent conclusions from metaphors than from semantically similar non-metaphoric traits.

In light of the aforementioned studies, it seems that including metaphorically framed stereotypes in testimony powerfully impacts cognition, causing jurors to mentally disregard information that fails to correspond with the ideas embedded in the stereotypical metaphor. Strengthening the effects of the stereotyping process, metaphorical framing likely increases the perceived accuracy of testimony. If a juror is already conditioned to associate Black faces with crime, violence, and subhuman and superhuman traits, metaphors linked to racial dehumanization and denigration likely provide further support for these associations. In other words, stereotype-metaphors may activate the thought process already instilled in individuals. Consequently, stereotype-metaphors will stand out more in a jurors' memory than non-

metaphoric descriptions, and resonate more strongly with the jurors' intuited sense of what might have happened.

The Conventinality and Aptness of Metaphorically Framed Stereotypes

According to Erikson (2013), processing speed remains the same across language recognition tests involving non-metaphoric and metaphoric speech. However, differences in processing speed, fluency, and ease emerge if metaphors are subcategorized based on levels of conventionality and aptness. Aptness refers to how well the particular metaphor represents critical aspects of a metaphor topic. A metaphor is deemed as highly apt if it is processed with relative ease because the subject being described is already considered an example of the category to which it refers. Conventinality refers to the familiarity of a metaphor.

“Conventionalized metaphors have been internalized as part of the mental lexicon and are often processed as categorical assertions” (Erikson, 2013, pp. 2). Differences in the processing of metaphors are contingent on how quickly a categorical association can be determined, or the speed with which a categorization can be made based on the provided metaphor. Though non-conventionalized and conventionalized metaphors both may be processed like “categorical assertions” (pp.2), conventionalized metaphors can often be retrieved directly from memory whereas non-conventionalized metaphors tend to require more a in-depth thought process that engenders a mental representation of the sentence (Thibodeau & Durgin, 2011; Erikson, 2013). Exemplifying a conventionalized and highly apt metaphor, *roller coaster* is employed frequently in metaphoric statements such as *marriage is a roller coaster* (Erikson, 2013).

Metaphors that contain stereotypes can be considered both conventionalized and highly apt because stereotypes are by definition widely held and pervasive throughout society, and consequently well established with respect to the given subject or category that they describe.

According to Erikson's research, metaphors containing stereotypes will be more salient, frequent, direct, familiar, and possess closer semantic relationships than other kinds of metaphors (Erikson, 2013). Consequently, metaphorically framing stereotypes causes the metaphor to stand out more and the metaphoric association to intuitively make more sense so that it is understood and processed with greater ease and at a faster pace than non-stereotypic metaphors. If this is true, the presence of metaphorically framed stereotypes in testimony will strengthen the proposed narrative.

Stereotypic Versus Non Stereotypic Metaphors Used To Dehumanize Outgroups

Metaphors are consistently employed in various forms of communication with the overt or covert intention of denigrating outgroups or hiding the morally, ethically, or legally unauthorized actions of in-groups. Metaphors used to delegitimize outgroups typically incorporate comparisons to subhumans (e.g., animals), superhumans (e.g., monsters or demons), or objects/automata (e.g., robots or machines) (Bar-Tal, 1989; Haslam, 2006). These three categories of metaphor effectively exclude outgroups from the definition of being human. Yet, for the ingroup, they simultaneously preserve a sense of superiority and condone transgressions of ethical and moral standards, such as discrimination, exclusion, and aggressive and malicious behavior toward outgroups (Maass, Suitner, and Arcuri, 2014).

While the frequent use of outgroup metaphors can lead to the creation of stereotypes, dehumanizing metaphors are not necessarily stereotypical. Stereotypes are defined as a widely held yet oversimplified picture or conception of a certain category of people or things (*Oxford Dictionaries*, 2017). For example, using the *ape* metaphor to describe a non-Black person certainly constitutes dehumanization, yet it likely does not have the same effect as describing a Black person, as the association between Black people and apes is societally pervasive and

rooted in history. Non-stereotypic dehumanizing metaphors can also be distinguished from stereotypic dehumanizing metaphors on the basis of conventionality and aptness. The latter are inherently conventionalized and high in aptness whereas the former are not, as a metaphor is stereotypical only when the association between the source and target concepts is widely held or somewhat cliché. Metaphorically framed dehumanizing stereotypes about outgroups necessarily contain associations that are traceable in society, historically documented, and specific to the given category.

Researchers have begun to explore stereotypical metaphors related to social roles, such as occupations (e.g., lawyer, politician) (Maass et al., 2014), but minimal research exists on stereotypical metaphors about particular racial groups. Although research has addressed the dehumanizing and delegitimizing associations and labels generally applied to outgroups (Bartol, 1989; Haslam, 2006), the effects of metaphorically framed negative stereotypes regarding particular outgroups (e.g., racial groups) have yet to be explored. This research will contrast stereotypic dehumanizing metaphors from non-stereotypic dehumanizing metaphors.

Present Study

The present study investigates the effects of using (1) stereotypical metaphors about Black people versus (2) non-stereotypic (race-neutral) dehumanizing metaphors versus (3) non-metaphoric semantically similar descriptors in oral testimony to describe Black or White victims of police violence. Participants were assigned to one of six conditions. After being primed with an image of a Black or White victim, they listened to fictional testimony read by an actor playing the police officer that used a series of metaphors containing stereotypes of Black men, generic dehumanizing metaphors, or non-metaphorical descriptors to discuss the altercation with the victim. I predicted (1) a main effect of race, such that participants primed with the Black face

would be more likely to vote against indicting the police officer, regardless of which version of the testimony they were exposed to. The images portrayed stereotypically Black and White looking individuals. These images served as visual primes, which have been shown to bias interpretation to the extent that vague targets are perceived according to the primed category (Devine, 1989; Gilbert & Hixon, 1991; Kunda & Sherman-Williams, 1993). Therefore, participants were expected to cognitively organize information according to their associations with the racial category promoted by the visual prime. I predicted (2) a main effect of metaphor, such that participants exposed to either version of the metaphor-laden testimony (stereotypical metaphors about Black people or non-stereotypic dehumanizing metaphors) would be more likely to vote against indicting the officer, regardless of the victim's race. All metaphors (and non-metaphoric descriptors) were introduced early on in the testimony to ensure that participants experienced the depth of their cognitive effects (Thibodeau & Boroditsky, 2011). I predicted (3) a significant interaction between race and metaphor, such that those in conditions in which they were primed with a Black victim and exposed to metaphor-laden testimony (either stereotypical metaphors about Black people or non-stereotypical race-neutral dehumanizing metaphors) would be more likely to vote against indicting the officer, with those in the condition in which they are primed with a Black face and then listen to testimony including metaphorically framed stereotypes about Black people being the most likely to vote against indicting the officer. This was expected because stereotypical metaphors only function as stereotypes when they match the racial category to which they are associated (e.g., metaphorically framed Black stereotypes used to describe a Black victim).

While stereotypes and metaphors have been researched independently, this study addresses the paucity of research on the cognitive effects of the interaction of metaphors and

stereotypes. This study also seeks to build upon the limited body of research that empirically demonstrates the ability of metaphors to shape the way in which individuals think and make decisions about real-world problems. Designed to reflect two central aspects of jury proceedings - the auditory characteristic of testimony and the decision-making task required of jurors, this study also places these effects in a specifically judicial context. The context of jury testimony is an important field to examine because such testimony is typically inaccessible to the public and because this domain serves as an effective model for looking at the effects of metaphor on reasoning. The primary task required of jurors in such cases (voting to indict or not indict a defendant) offers a 'real life' scenario wherein the effects of linguistic manipulations can be investigated by ascertaining whether jurors tend to vote in favor of or against the knowledge frame that a stereotypical metaphor provides.

Method

Participants

The original sample (N=420) was recruited via Amazon Mechanical Turk. After filtering out those who incorrectly answered a factual question about the testimony in which participants were asked to identify the weapons mentioned in the testimony, the remaining sample included 397 participants. The final population was comprised of White participants (as the hypotheses rely to a great extent on outgroup biases) and was 53.8% male. The majority of the sample (62.2%) was between twenty-six and forty years old, while 22.1% was forty-one to fifty-five, 8.9% was twenty-five or younger, and 6.9% was over fifty-six. As for educational attainment, 17% completed high school, 30.5% completed some college, 40.6% received a bachelor's degree, and 11.9% received education or training beyond an undergraduate level. The largest proportion (43%) of the sample were Democrats, while slightly over a quarter were Republicans

(26%), and nearly one-third (31%) were Independents. As for voting history, 69.6% of the sample voted for Obama in 2012 and 67.9% of the sample voted for candidates other than Donald Trump in 2016. Between 61 and 69 participants were randomly assigned to each of the six conditions.

Procedures

The hypotheses were tested using a 3 (Black stereotype metaphor vs. race-neutral dehumanizing metaphor vs. non-metaphorical descriptors) x 2 (race of victim of police violence: White vs. Black) factorial design. Participants listened to oral testimony read aloud by professional actors. The testimony was structured based on actual jury testimony from similar court cases that have been released to the public (e.g., testimony by Darren Wilson and other eye witnesses in *State of Missouri vs. Darren Wilson*) and past studies of racial bias and metaphors that delegitimize and dehumanize out-groups (e.g., Bar-Tal, 1989; Haslam, 2006; Eberhardt et al., 2004; Eberhardt et al., 2006; Thibodeau & Boroditsky, 2011; Allbritton, 1995; Correll et al., 2007; Keefer et al., 2011). See appendix A for a complete transcript of the testimony.

The study was comprised of six conditions: three versions of the testimony and two different victims. The first version described the victim and the events that transpired using a series of metaphors containing stereotypes about Black people, the second version did so using a series of non-stereotypical (race-neutral) dehumanizing metaphors about outgroups, and the third version did so using a series of non-metaphoric semantically similar descriptors. Metaphors and non-metaphors are provided in *Table 1*. The Black stereotype metaphors and non-metaphoric semantically similar descriptors were selected based on a pilot study conducted via mTurk in which respondents were asked to list racial and lexical associations with several stereotypical metaphors. The metaphors that most frequently elicited associations with Blackness were used in

the first version of the testimony (Black stereotype metaphors condition) and the word associations most frequently provided were used in the third version of the testimony (non-metaphoric semantically similar descriptors condition). The race-neutral dehumanizing metaphors in the second version of the testimony refer to the typical categories of metaphors used to delegitimize outgroup members (Bar-Tal, 1989; Haslam, 2006). The victim being described was either Black or White, as indicated by an image accompanying the testimony (see appendix B).

In the first section of the study, participants viewed an image of either a Black or White male and an image of a White police officer. The names of the victim (Willie Johnson) and the police officer (Officer Miller) were provided as well. This section also included a brief and objective description of the case and a concise summary of the potential violations of federal law.

In the following phase, participants were instructed to listen to about 3.5 minutes of testimony provided by the police officer including Black stereotype metaphors, non-stereotypical dehumanizing metaphors, or non-metaphoric semantically similar descriptors (*Table 1*).

After the survey, participants completed a positive counter stereotypical exemplar task. Participants were asked to match images of prominent and successful people of color to their respective occupations in order to weaken the salience of any negative associations that may have manifested due to exposure to intense and potentially evocative stereotypical language (Ramasubramanian, 2011; Columb & Plant, 2011). Participants were then debriefed to ensure that they understood the concepts being investigated in the study (i.e., “we are studying how the use of stereotypical metaphors might shape reactions to testimony in cases involving police violence”). See appendix B for full debriefing.

Dependent Variables. Immediately after listening to the testimony, participants were asked to answer a series of questions based on what they heard. The responses to these questions serve as the dependent variables. Participants first voted “yes” or “no” as to whether or not there was enough evidence for the officer to be tried in a criminal court. They were then asked to rate their level of confidence in their decision on a 5-point scale and to list the most important factor(s) underlying their decision on the first question in an open-ended format. These free responses were coded based on whether or not they mentioned metaphors used by police officer. The last three items used 5-point scales to assess how trustworthy participants found Officer Miller’s testimony to be, how justified Officer Miller’s actions were, and whether the actions taken by Willie Johnson necessitated Officer Miller’s use of a lethal weapon.

Sociodemographics. Information regarding race/ethnicity, birth sex, gender identity, age, primary language, highest level of education, political affiliation, and voting history (2012 and 2016) was collected.

Attitudes Toward the Police. Participants responded to three statements ($\alpha = .82$) regarding general personal attitudes toward the police on a 5-point scale (e.g., “I have a lot of respect for the police). The statements were taken from Edwards’ (2007) survey.

Attitudes Toward the U.S. Judicial System. Participants responded to three statements ($\alpha = .547$) regarding general personal attitudes toward the United States judicial system on a 5-point scale (e.g., “In spite of its problems, the American justice system is still the best in the world”). The items were taken from a 1999 survey by the American Bar Association.

Attitudes Toward Guns. This single-item measure of attitudes toward guns, taken from a 2016 study conducted by the Pew Research Center, asks whether participants view “controlling gun ownership” or “protecting the right to own guns” as more important.

External and Internal Motivations To Respond Without Prejudice. Participants respond via a 9-point scale (strongly disagree to strongly agree) to 10 items concerning rationales or motivations that individuals might have for seeking to respond in non-prejudiced ways toward Black people. Five items assess internal-personal motivations ($\alpha = .90$) and five items assess more external-social motivations ($\alpha = .94$) (Plant & Devine, 1998).

Attention Check. Participants were tested on basic factual information provided in the testimony in order to determine whether they paid attention throughout the auditory task (i.e., “please indicate which of the following weapons Officer Miller mentioned in the testimony”).

Data Analytic Plan

In order to test for potential collinearity problems, correlations were run between potential covariates and dependent variables.

A series of 2 (victim race: Black or White) x 2 (testimony version: Black stereotype metaphor or non-metaphoric descriptors) analyses of variance were run to determine whether there were any pre-existing differences by condition on the demographic and background variables. However, a repeated measures analysis of variance was conducted to determine whether there were any pre-existing differences by condition between External and Internal Motivations To Respond Without Prejudice.

The open ended responses to the question asking participants to list the most important factors underlying their indictment decisions were coded based on whether or not they mentioned biased and/or metaphoric language and the dependent variables. Correlations were run between the coded-open ended responses and the dependent variables. Two Chi-square tests of independence were also run in order to determine whether those commenting on the biased language were evenly distributed among conditions.

Because the decision to indict or not is categorical, logistic regression analyses were conducted to predict whether participants would vote yes or no to indicting Officer Miller.

A series of 2 (victim race) x 2 (testimony version) univariate analyses of covariance were conducted to assess the continuous dependent variables: the combined index of indictment decisions and confidence in indictment decisions, testimony trustworthiness, justification of Officer Miller's actions, and necessity of lethal force. The demographic variables (i.e., birth sex, age, and education level) and the attitudinal variables (i.e., attitudes toward the police, attitudes toward the U.S. justice system, political orientation, and attitudes toward guns) were also tested for main effects and interactions with the factors.

Results

Political party affiliation and voting history (2012 and 2016) were recoded and combined into an index of political orientation, in which voting for a candidate from a particular political party and reporting being a member of that political party were averaged together. Highest level of education was recoded so that it comprised 4 levels: high school, some college, Bachelor's Degree, and more than Bachelor's Degree. Indictment decisions and confidence in indictment decisions were recoded into a single 10-point variable, in which higher values indicate more confident decisions to not indict and lower values indicate more confident decisions to indict. All analyses described below were run including the non-stereotypic dehumanizing metaphor condition, but there were no significant differences between that condition and the stereotypic metaphor condition so it was removed from further analyses.

A number of background variables were collected for use as potential covariates. As illustrated in *Table 2*, the main dependent variables (i.e., the index of indictment decision and confidence in indictment decision, perceived trustworthiness of the testimony, perceived

justification of the officer's actions, and perceived necessity of lethal force) were significantly correlated with each other at the $p < .01$ level. All main dependent variables were also significantly correlated with attitudes toward guns, voting history (2016), attitudes toward the police, attitudes toward the U.S. justice system, External and Internal Motivations To Respond Without Prejudice, and political orientation.

The results from a series of 2 (victim race: Black or White) x 2 (testimony version: Black stereotype metaphor or non-metaphoric descriptors) analyses of variance indicated that there were no pre-existing differences between conditions on the demographic variables. However, a repeated measures analysis of variance demonstrated that External and Internal Motivation To Respond Without Prejudice were influenced by the manipulation (*Figure 4*). Participants scored significantly differently on the External and Internal MTRWP scales, $F(1,1) = 201.72, p < .001$. Regardless of the race of the victim and the version of the testimony, participants reported higher levels of internal motivations ($M = 6.40, SD = 1.30$) than external motivations ($M = 3.87, SD = 2.38$). As seen in *Figure 4*, there was also a significant interaction of motivation type by race, $F(1,1) = 4.82, p = .029$. Specifically, considering a Black victim led to higher external motivation scores ($M = 4.13, SD = 2.49$) than considering a White victim ($M = 3.60, SD = 2.25$), $t(392) = 2.45, p = .015$, and lower internal motivation scores ($M = 6.27, SD = 1.41$), $t(392) = -2.21, p = .028$ than considering a White victim ($M = 6.53, SD = 1.16$). Because External and Internal MTRWP were influenced by the manipulation, they were not appropriate for use as covariates.

Open-ended responses to the question asking participants to list the most important factors, which shaped their decision to indict or not were coded based on whether they alluded to biased metaphoric language. Out of the 394 participants that provided responses, 20 (or 5.1%)

alluded to biased and/or metaphoric language as a critical factor shaping their indictment decisions. Responses ranged from citing Officer Miller's use of "a lot of racially insensitive descriptors for the victim," to specifically referencing non-stereotypic dehumanizing metaphors in statements such as, "he called him a subhuman several times. This is really odd to me. It sounded like he's trying to justify not using other ways to subdue the victim." Other responses alluded to stereotypical metaphors: "He kept referring to him as a monster, 'like King Kong,' the look in his eyes, and so on. It didn't seem like he was making objective statements about what actually happened, so it leads me to believe that he isn't telling the whole truth about what happened."

All 20 of these individuals regarded this use of language as problematic and indicative of bias, and thus voted to indict Officer Miller. Furthermore, 15 (or 63.2%) of the individuals who mentioned biased metaphors perceived Officer Miller's testimony as "somewhat" to "very" untrustworthy, 13 (or 65%) viewed Officer Miller's actions as "somewhat unjustified" or "not justified at all", and 16 (or 80%) reported that Officer Miller's use of lethal force was "probably not" or "definitely not" a necessary response to the victim's behavior. Mention of metaphors was significantly correlated with the index of indictment decisions and confidence in indictment decisions ($r(392) = -.207, p < .001$), perceived trustworthiness of the testimony ($r(389) = -.225, p < .001$), perceived justification of Officer Miller's actions ($r(391) = -.239, p < .001$), perceived necessity of the use of lethal force ($r(392) = -.247, p < .001$), and attitudes toward the police ($r(392) = -.156, p = .002$). In other words, all of the participants who noticed and commented on biased and/or metaphoric language had negative opinions of Officer Miller. With regard to the manipulations, five of the participants were in the Black victim/Black stereotype metaphor condition, nine were in the Black victim/race-neutral dehumanizing metaphor condition, one was

in the White victim/ Black stereotype metaphor condition, and five were in the White victim/ race-neutral dehumanizing metaphor condition. Two Chi-square tests of independence were run in order to determine whether those commenting on the biased language were evenly distributed among conditions. A significant effect was found ($X^2(2) = 15.97, p < .001$) for metaphor condition. Across both victim race conditions, the non-stereotypic dehumanizing metaphors condition yielded greater proportions of individuals mentioning language use (10.8%) compared to the Black stereotype metaphors (4.6%) and the non-metaphoric descriptors (0.0%) conditions. The Chi-square test comparing the frequency of mentioning metaphor and/or bias in those exposed to Black and White victims yielded a marginally significant effect ($X^2(1) = 3.12, p = .077$), such that participants exposed to a Black victim were more likely to mention biased and/or metaphoric language (7.0% versus 3.1%).

The results of univariate analyses of covariance assessing the continuous dependent variables (i.e., the index of indictment decisions and confidence in indictment decisions, testimony trustworthiness, justification of Officer Miller's actions, and necessity of lethal force) are reported *tables 3-7*. These analyses also tested for effects of demographic variables (i.e., birth sex, age, and education level) and attitudinal variables (i.e., attitudes toward the police, attitudes toward the U.S. justice system, political orientation, and attitudes toward guns) as well as their interactions with the factors. Across all of the dependent variables, favorable attitude toward the police consistently predicted pro-police decision-making, and thus was included as a covariate.

Victim race, $F(1, 258)=3.94, p = .048$, and attitudes toward police, $F(1, 258)=56.37, p < .001$, significantly predicted responses within the combined index of indictment decisions and confidence in indictment decisions. Exposure to a Black victim predicted slightly more confidently voting against the indictment ($M = 5.43$) than exposure to a White victim ($M = 5.24$).

As seen in *Figure 1*, there was also a significant interaction between victim race and attitudes toward police, $F(1, 258)=5.03, p = .026$. When the victim was Black, the relationship between positive attitudes toward police and confidently voting against the indictment was stronger.

Police attitudes significantly predicted how trustworthy participants perceived the officer's testimony to be, $F(3,259) = 121.912, p < .001$, such that favorable attitudes toward the police corresponded with greater perceptions of trustworthiness. No other main effects or interactions significantly predicted trustworthiness.

As for the extent to which participants viewed Officer Miller's actions as justified, significant predictors included birth sex, $F(3,259) = 8.32, p = .004$, attitudes toward the police, $F(3,259) = 82.82, p > .001$, and victim race, $F(3,259) = 4.15, p = .043$. On average, males ($M = 3.67, SD = 1.36$) rated Officer Miller's actions as more justified than did females ($M = 3.24, SD = 1.42$) and those exposed to Black victims ($M = 3.46, SD = 1.47$) rated Officer Miller's actions as more justified than did those exposed to White victims ($M = 3.45, SD = 1.32$). This signifies that males, those with pro-police attitudes, and those in the Black victim condition were significantly more likely to regard Officer Miller's actions as more justified. As shown in *Figure 2*, the two-way interaction between victim race and attitudes toward the police was also significant, $F(3, 259) = 4.75, p = .030$; the positive relationship between police attitudes and perceived justification of Officer Miller's actions was stronger when the victim was Black.

Judgments of necessity of lethal force were statistically significantly predicted by attitudes toward the police, $F(3,260) = 81.09, p < .001$, and victim race, $F(3,260) = 6.62, p = .011$. Those exposed to Black victims ($M = 3.19, SD = 1.34$) judged Officer Miller's use of lethal force as more necessary than those exposed to White victims ($M = 3.20, SD = 1.23$). These main effects indicate that participants with positive attitudes toward the police and participants

assigned to the Black victim condition were significantly more likely to perceive Officer Miller's use of force as more necessary. As seen in *Figure 3*, also significant was the two-way interaction of victim race by police attitudes, $F(3,260) = 6.92, p = .009$, suggesting that the positive relationship between police attitudes and perceived necessity of lethal force was stronger when the victim was Black.

Discussion

Though the presence of metaphor did not have a significant impact on decision-making, the race of the victim (Black or White) did slightly affect participants' responses within the index of indictment decisions and confidence in indictment decisions, judgments of the extent to which Officer Miller's actions were justified, and ratings of necessity of lethal force. When the victim was Black, participants were slightly more likely to confidently vote against the indictment, and perceive Officer Miller's actions as more justified and his use of lethal force as more necessary. Yet, the effect sizes for these group differences were small, perhaps indicating that these effects would not manifest in real world settings. The small effect sizes could also demonstrate that individuals are less racially biased than they once were. However, given the recent publicity of the issue of race and policing, participants may have been aware of the topic of this study. Consequently, it is possible that participants' anxieties about appearing racist resulted in socially desirable responses.

On average, participants scored significantly higher on Internal than External Motivations To Respond Without Prejudice. In other words, the participants in the sample were overall more internally motivated than externally motivated. When motivations to respond without prejudice stem from internal principles, the self serves as the important source of judgment (i.e., the standard is self-prescribed). When motivations to respond without prejudice stem from external

principles, other significant audiences serve as the source of judgment (i.e., the standard is prescribed by external others). There was also a significant interaction between motivations to respond without prejudice and race. Exposure to a Black victim as opposed to a White victim yielded greater external motivation scores but lower internal motivation scores, which suggests that thinking about a Black victim caused individuals to focus more on external motivation and less on internal motivation. Exposure to a Black victim may function as an external pressure to comply with society's non-prejudiced standard. In other words, when the victim is Black, the interracial quality of the encounter described in the testimony may render race more salient, such that individuals become more concerned with failing to meet society's non-prejudiced standard not due to intrinsic but extrinsic pressures. Further, the involvement of a Black victim creates a stereotypical situation of a Black man engaging in a criminal encounter, in which case motivations to respond without prejudice are shaped by extrinsic pressures to resist endorsing that stereotype (i.e., conformity with, as opposed to internalization of, society's non-prejudiced values) (Plant & Devine, 1998). This finding may support the notion that anxieties about appearing racist influenced participants to provide socially desirable responses.

Attitude toward the police was significant across all of the dependent variables, including the index of indictment decisions and confidence in indictment decisions, and ratings of testimony trustworthiness, necessity of lethal force, and justifiability of Officer Miller's actions. Specifically, positive attitudes toward the police predicted pro-police ratings and decision-making (i.e., confidently voting against the indictment), suggesting that general attitudes toward the police function as a critical factor in cases involving a police officer's use of deadly force against a Black victim. It is probable that the measure of general attitudes toward the police reflects participants' stances within the "Black Lives Matter" versus "Blue Lives Matter" debate.

Likely to be associated with cultural worldview (e.g., hierarchical individualism and legal authoritarianism), these stances are often held fervently and are unsusceptible to persuasion, e.g., via metaphorical framing.

Significant interactions between the race of the victim and attitudes toward police were also found. When the victim was Black, attitudes toward police more strongly predicted responses within the index of indictment decisions and confidence in indictment decisions as well as judgments of the extent to which Officer Miller's actions and use of lethal force were justified and necessary. These interactions suggest that when a victim is Black, people may think more heuristically and less critically, and respond on the basis of their attitudes toward the police. Previous research has demonstrated that the automatic activation of the stereotypical association of Blacks and aggression induces prejudiced thinking and decision-making (Devine, 1989). Interracial cases of police brutality may offer both race and perceptions of police as available heuristics that facilitate problem solving and aid in drawing conclusions about whom to blame (Prentice & Miller, 1999; Eberhardt et al., 2006). While other potentially criminalizing details are ignored and dismissed, the automatic activation of stereotypes that associate Blackness with criminality, violence, and subhuman and superhuman characteristics may enable one's favorable views of police in general to sufficiently rationalize trusting and endorsing a particular police officer's decisions. The effect of race, however, was not nearly as strong as the effect of attitude toward police. The strength of the effects of attitudes toward police may indicate that White people hold stereotypes of White police officers as virtuous, trustworthy, and infallible or less capable of human error. Yet, further research must be conducted to understand whether these perceptions reflect the cognitive functions of stereotypical thinking.

Moreover, males were significantly more likely to view Officer Miller's actions as justified. This finding is consistent with previous studies, which report that men are more physically aggressive than women (Burton, Hafetz, & Henninger, 2007) and that men perceive aggression as a functional interpersonal act intended to assert control over others whereas women perceive aggression as a collapse of one's control over their own anger (Campbell & Muncer, 1994).

When asked to list the most important factors that shaped their indictment decisions, all participants that mentioned biased and/or metaphoric language voted to indict Officer Miller. This indicates that noticing and alluding to bias and/or metaphors was consistently associated with negative perceptions of Officer Miller. The participants who mentioned biased and/or metaphoric language were most frequently exposed to a Black victim, which suggests that sensitivity to potential racial prejudice may have provoked a heightened awareness of language use. Across both victim race conditions, those exposed to non-stereotypic dehumanizing metaphors were more likely to mention language use, which may evince that these metaphors were more obviously biased and therefore less effective. As all of the participants that listed bias and/or metaphoric language as an important factor voted to indict Officer Miller, it may be that heightened awareness of language use predicts perceptions of stereotypical and non-stereotypical outgroup metaphors as problematic and indicative of racial bias. This may also indicate that metaphors are less persuasive when listeners are more aware of them. Past research demonstrates that people are generally resistant to persuasion but even more so when they feel strongly about an issue and knowingly anticipate attitude incongruent persuasion attempts. In other words, awareness of a persuasion attempt renders one less susceptible to persuasion by enabling the

development of counter arguments (Cialdini, Levy, Herman, Kozlowski, & Petty, 1979; Johnson, 1994). In this study, individuals may have been primed to disarm the persuasion attempt.

The hypothesized main effect of metaphor was based on previous research by Thibodeau & Boroditsky (2011), which found that the effect of metaphorical frames was more influential than real-world differences in opinion that exist within the population (specifically, between Democrats and Republicans). The empirically demonstrated power of metaphor in Thibodeau & Boroditsky's study as well as various lab studies supported the prediction that even when metaphors are provided in the context of a real-world socio-political issue, they will still impact thinking and decision-making. Contrary to the hypotheses, participants whose testimony included metaphors (Black stereotype metaphors or non-stereotypic dehumanizing metaphors) were not more likely to vote in favor of the police officer (against the indictment), nor were these participants more likely than participants whose testimony did not include metaphors to perceive Officer Miller as trustworthy, his actions as justified, or his use of lethal force as necessary. These findings imply that neither stereotypical nor non-stereotypical dehumanizing outgroup metaphors more powerfully influence reasoning and decision making than non-metaphoric semantically similar descriptors.

Past research suggests that uncertainty causes people to rely more on metaphors to make decisions (Keefer et al., 2011). This finding was initially interpreted as supportive of the hypothesized main effect of metaphor, as all jurors were classified as inherently uncertain about their assigned case. On the contrary, it seems likely that in the context of police use of force cases, Americans are not uncertain; rather, they tend to commit themselves to either side of the controversial "Black Lives Matter" versus "Blue Lives Matter" debate. Due to the recent publicity of this issue, participants also may have been aware of the topic of the study.

Consequently, even before listening to the testimony, the participants likely already had concrete attitudes about the case that shaped their responses. The metaphors were probably not more persuasive than the non-metaphoric descriptors because other factors, such as attitudes toward the police likely overpowered their effects.

As stated by Thibodeau & Boroditsky (2015), studying metaphorical framing in a dynamic real-world context is a challenging endeavor. The controversial “Black Lives Matter” versus “Blue Lives Matter” debate is constantly portrayed in the media, yet the connotation and focus of its portrayals vary by media outlet and due to important events and political climate (Thibodeau & Boroditsky, 2011). These factors all contribute to how people think about racial bias, the role of the police, and the interplay of the two. Therefore, the timing of the data collection, at a moment in which the issue of race and policing is marked by heated contention and ample media coverage, most likely impacted the results. Consequently, these findings suggest that there are in fact limits to the power of metaphor in shaping how people think and make decisions about highly publicized and controversial real-world issues, such as police brutality against Black people.

It is also possible that the metaphors and non-metaphoric descriptors were not dissimilar, in their effects, and consistent with this, replacing the Black stereotype metaphors with semantically similar descriptors did not produce a neutral stimulus, but, rather, a different stimulus (Thibodeau & Boroditsky, 2015). Features like “frequency, vividness, conventionality, emotional valence, and arousal” shape how people respond to linguistic stimuli, thus demonstrating the complexity of linguistic stimuli and explaining why they may impact different people differently (Thibodeau & Boroditsky, 2015, p.18).

Most White people can readily list the common stereotypes of Black people (Feagin, 2010). Such a deep awareness of stereotypes may have minimized or watered down the differences between metaphorically framed and non-metaphorically framed stereotypes. If the metaphors and non-metaphoric descriptors were equally capable of initiating stereotypic associations, then one's responses to dependent variables were contingent upon on other factors, such as attitudes toward the police. Additionally, it is possible that the cognizance of Black stereotypes among Whites increased the salience of the stereotypical associations underlying the metaphoric and non-metaphoric language. As a result, participants may have been able to identify bias in the testimony, and consequently provided responses based on external motivations to respond without prejudice and desires to resist outwardly endorsing such bias.

Limitations and Future Research

Caution is necessary in considering the results of this study in comparison to real jury settings. First, typical jury deliberation was sacrificed so that a larger sample size could be attained via online data collection. Second, while in most lethal force cases only the defendant is capable of testifying and frequently, there are no other eyewitnesses; there often are other sources of evidence for jurors to consider besides the testimony of one person.

Another limitation of the current study relates to the sample population, which was comprised entirely of White participants, and more educated, and Democratic than the general population.

The current publicity and controversy surrounding the real-world socio-political issue of race and policing likely affected the results by making it especially difficult for the experimental manipulations to effectively elicit significantly different responses. Future research should continue to examine the impacts of metaphor and metaphorically framed stereotypes -

specifically those associated with particular racial groups - on thinking and reasoning about real-world issues. However, until the issue of race and policing is less salient and less frequently covered by the media, understanding the impacts of racially stereotypical metaphors in cases of police brutality will pose a challenge. Consequently, in the interim, it may be worthwhile to study the cognitive impacts of racially stereotypical metaphors in other comparably less controversial contexts that are less scrutinized by the media and that people feel more uncertain about.

The current findings bear on the effects of listening to metaphorically laden testimony; however, results may differ when individuals read such testimony as opposed to watching someone deliver it. Previous findings (Chaiken & Eagly, 1983) indicate that conveying messages via video presentations is most effective in changing attitudes. Yet, video (and audio) channels also minimize one's abilities to consider the content of the message, causing individuals to depend to a greater extent on simple signals in the message that are not relevant to the main argument. Therefore, more complex messages are most effectively conveyed through written text because this channel allows people to thoroughly wade through information at a self-determined pace.

In studies of this nature, it may also be worthwhile to question participants on the extent to which they noticed the metaphors and believed them to be effective.

As previously mentioned, future research should address whether perceptions of White police officers among White people reflect the cognitive functions of stereotypes.

Implications

The strength of attitude toward police as a predictor of thinking and decision-making has important implications for jury selection. In cases of police use of force, potential jurors should

be asked to complete questionnaires that measure their general attitudes toward the police, in addition to questions about whether they have close personal relationships with police officers or have had specific encounters that might bias their interpretations.

Previous research by Skinner & Haas (2016) demonstrated that perceiving police officers as more of a threat predicts greater support for restrictive and reformed policing policies, whereas perceiving Black men as more of a threat predicts greater opposition to such policies. Skinner & Haas also found that participants who associated Black men with threat often deemed lethal force acceptable in a greater number of incidents, were less likely to scrutinize police officers implicated in deadly force cases, less likely to support on-body cameras, and less likely to support demographic matching police reform. As a consequence, individuals who feel threatened by Black men are probably less likely to endorse reformed policing practices or candidates who endorse them (Skinner & Haas, 2016). The current study similarly found that participants with pro-police attitudes, especially those considering Black victims, were more likely to confidently vote against the indictment, and highly rate the justifiability of the officer's actions and the necessity of the officer's use of lethal force. Coupled with Skinner & Haas' research, these findings provide additional insight into why people support or oppose certain policing policies. This research also advances our understanding of why jurors may perceive a police officer's actions as appropriate or inappropriate. It may be that the involvement of a Black victim causes individuals who already have favorable perceptions of police in general to vote in favor of a particular officer, not as a result of the facts of a case but simply because stereotypes of the threatening Black man and the virtuous, infallible White police officer serve as easy and convenient heuristics.

The powerful effects of attitudes toward police in shaping responses to this case highlight the need for transparent, public systems of accountability for police officers. The establishment of such a system could perhaps enable potential jurors to form accurate pictures of police rather than blindly reacting to such cases based on assumptions.

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Table 1.

Black stereotype metaphors, non-stereotypic dehumanizing metaphors, and non-metaphoric semantically similar descriptors

Black Stereotype Metaphors	Non-stereotypic Dehumanizing Metaphors	Non-metaphoric Semantically Similar Descriptors
King Kong	Subhuman	Wild and massive
Monster	Superhuman	Scary and evil
Tank	Automaton	Heavy and unstoppable

Table 2.

Pearson Correlation Matrix among Dependent Variables and Potential Covariates

	Indict Y/N/ Confidence	Trustworthy	Justified	Lethal Force
Trustworthy	.492**			
Justified	.699**	.653**		
Lethal Force	.645**	.631**	.825**	
Guns Attitudes	.171**	.202**	.176**	.203**
Political Affiliation	.017	-0.012	-0.043	-0.044
2012 Vote	-.160**	0.075	0.065	0.072
2016 Vote	-.185**	-1.09*	.102*	.116*
External Motives	.118*	.176**	.164**	.170**
Internal Motives	-.167*	-.156**	-.166**	-.186**
Police Attitudes	.359**	.568**	.466**	.491**
Justice System Attitudes	.158**	.307**	.248**	.207**
Political Orientation	.169**	.304**	-.156**	-.181**

Note. * $p < .05$ ** $p < .05$ *** $p < .001$

Table 3.

Adjusted Group Means and Standard Deviations for the Index of Indictment Decisions and Confidence in Indictment Decisions

	Black Victim	White Victim	Total
Stereotype Metaphor	5.60 (3.57)	4.8 (3.44)	5.2 (3.52)
Non-Metaphoric Descriptors	5.27 (3.57)	5.67 (3.30)	5.47 (3.42)
Total	5.43 (3.56)	5.24 (3.38)	5.33 (3.47)

Note. Covariates appearing in the model are evaluated at the following values:
Attitudes Toward Police=2.98

Table 4.

Adjusted Group Means and Standard Deviations for Confidence in Indictment Decision

	Black Victim	White Victim	Total
Stereotype Metaphor	3.93 (.91)	3.91(.81)	3.92 (.86)
Non-Metaphoric Descriptors	3.94 (.71)	3.69 (.85)	3.81 (.80)
Total	3.94 (.84)	3.80 (.84)	3.87 (.83)

Note. Covariates appearing in the model are evaluated at the following values:
Attitudes Toward Police=2.98, Education Level=2.50

Table 5.

Adjusted Group Means and Standard Deviations for Testimony Trustworthiness

	Black Victim	White Victim	Total
Stereotype Metaphor	3.59 (1.18)	3.75 (.97)	3.67 (1.09)
Non-Metaphoric Descriptors	3.74 (1.12)	3.60 (1.08)	3.67 (1.12)
Total	3.67 (1.08)	3.68 (1.03)	3.67 (1.10)

Note. Covariates appearing in the model are evaluated at the following values:
Attitudes Toward Police=2.98

Table 6.

Adjusted Group Means and Standard Deviations for Justification of Police Officer's Actions

	Black Victim	White Victim	Total
Stereotype Metaphor	3.41 (1.54)	3.53 (1.26)	3.47 (1.41)
Non-Metaphoric Descriptors	3.52 (1.40)	3.36 (1.38)	3.444 (1.39)
Total	3.46 (1.47)	3.45 (1.32)	3.45 (1.40)

Note. Covariates appearing in the model are evaluated at the following values:
Attitudes Toward Police=2.98

Table 7.

Adjusted Group Means and Standard Deviations for Necessity of Lethal Force

	Black Victim	White Victim	Total
Stereotype Metaphor	3.09 (1.38)	3.33 (1.16)	3.21 (1.28)
Non-Metaphoric Descriptors	3.30 (1.29)	3.13 (1.30)	3.22 (1.30)
Total	3.19 (1.34)	3.23 (1.24)	3.21 (1.29)

Note. Covariates appearing in the model are evaluated at the following values:
Attitudes Toward Police=2.98

Figure 1.

Interaction plot for victim race and attitudes toward police on the index of indictment decisions and confidence in indictment decisions

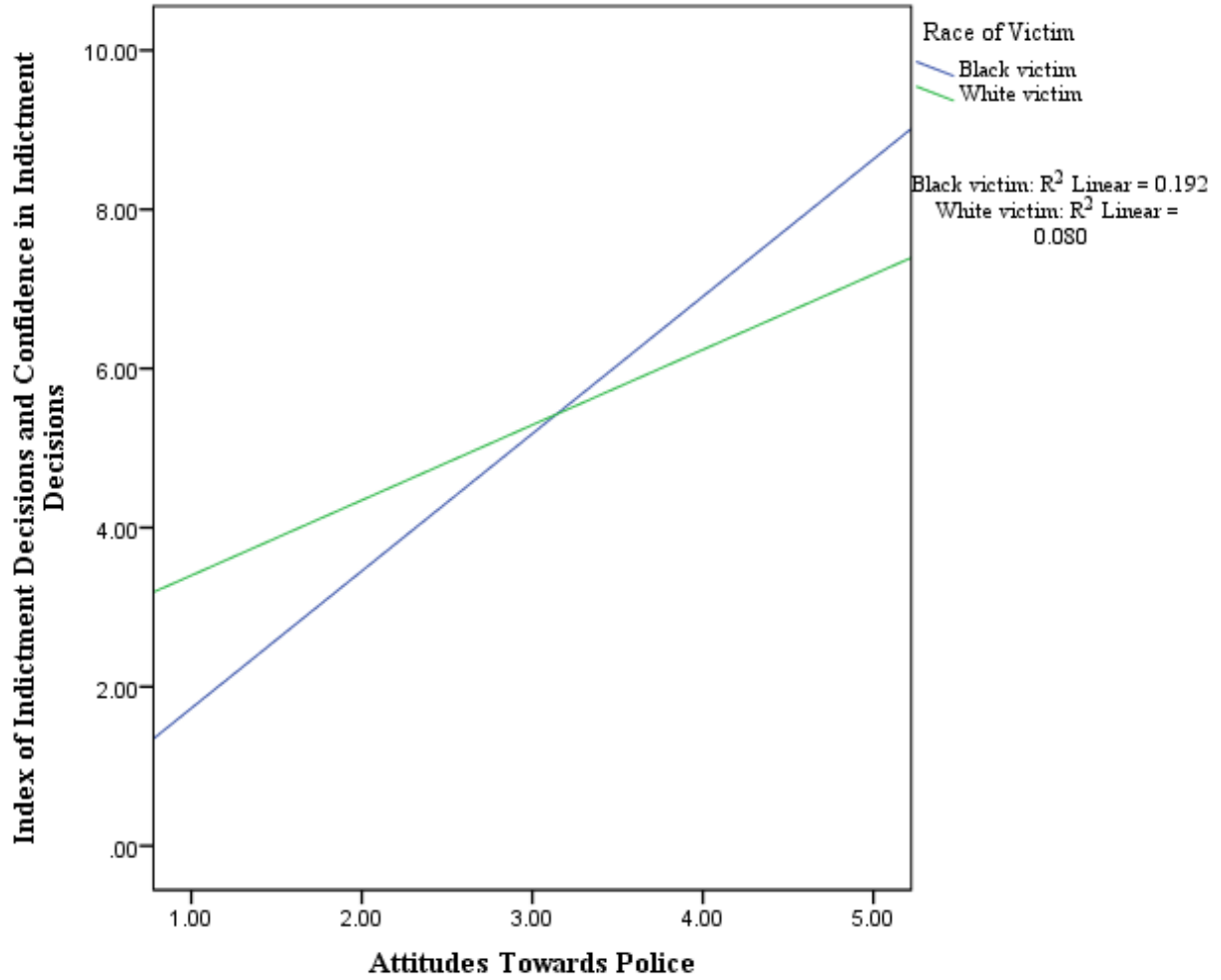


Figure 2.

Interaction plot for victim race and attitudes toward police on perceived justification of the police officer's actions

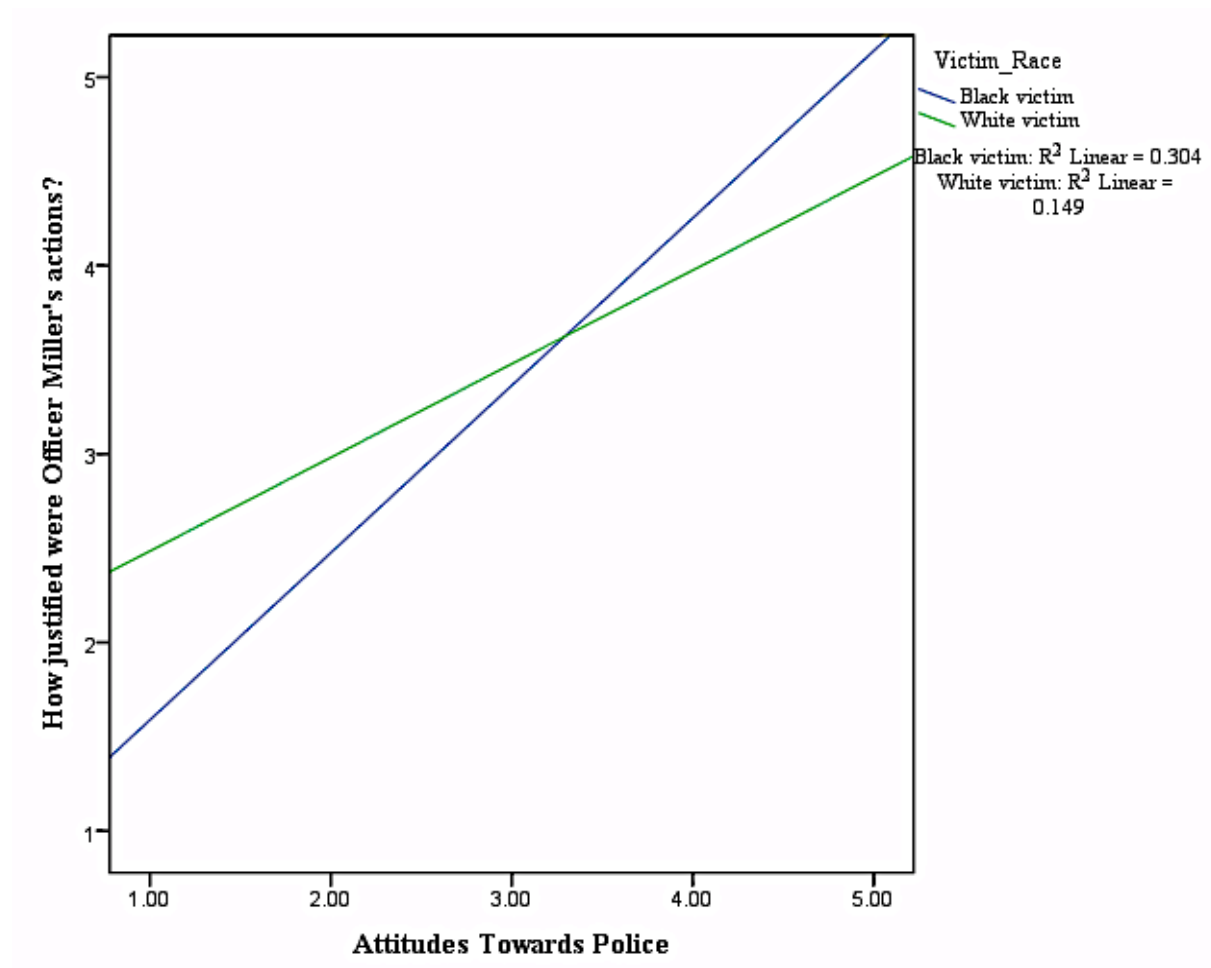


Figure 3.

Interaction plot for victim race and attitudes toward police on perceived necessity of lethal force

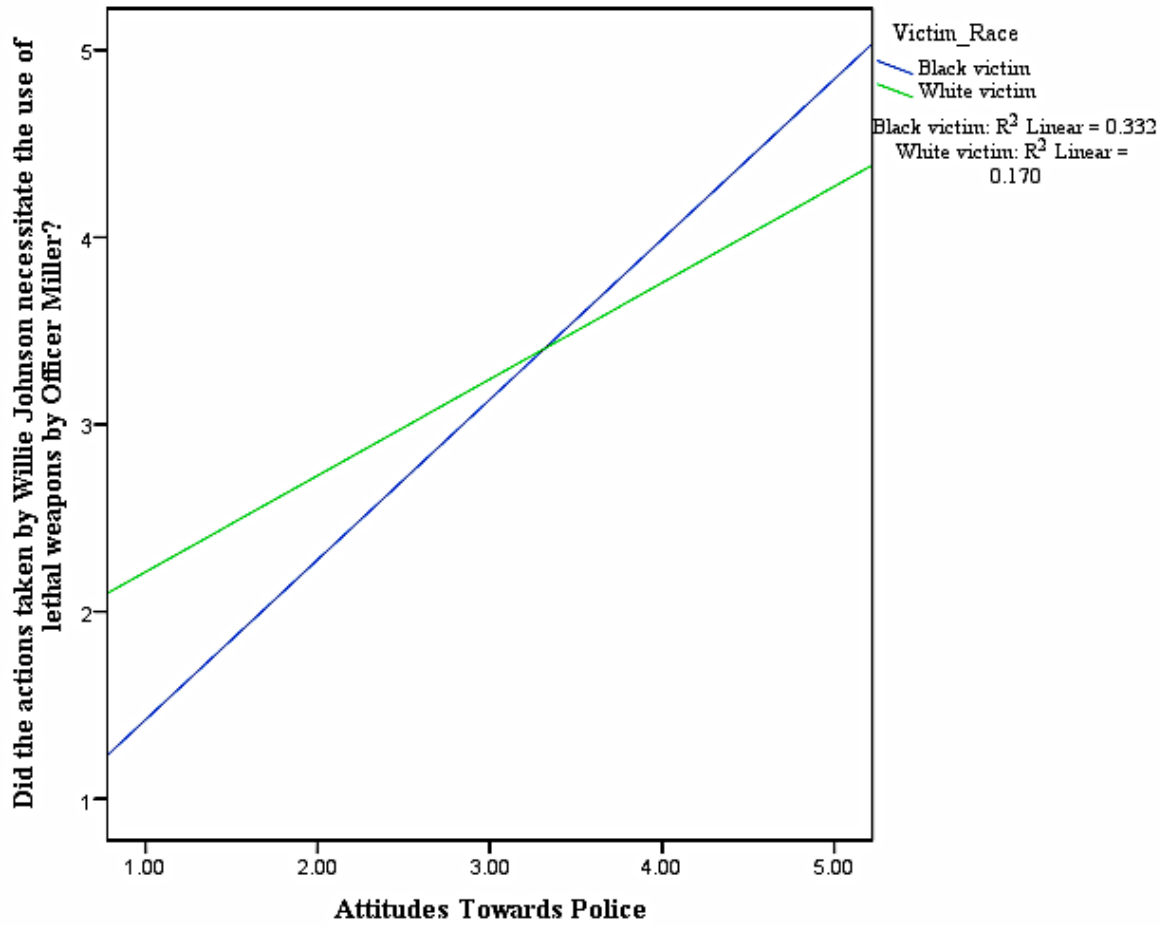
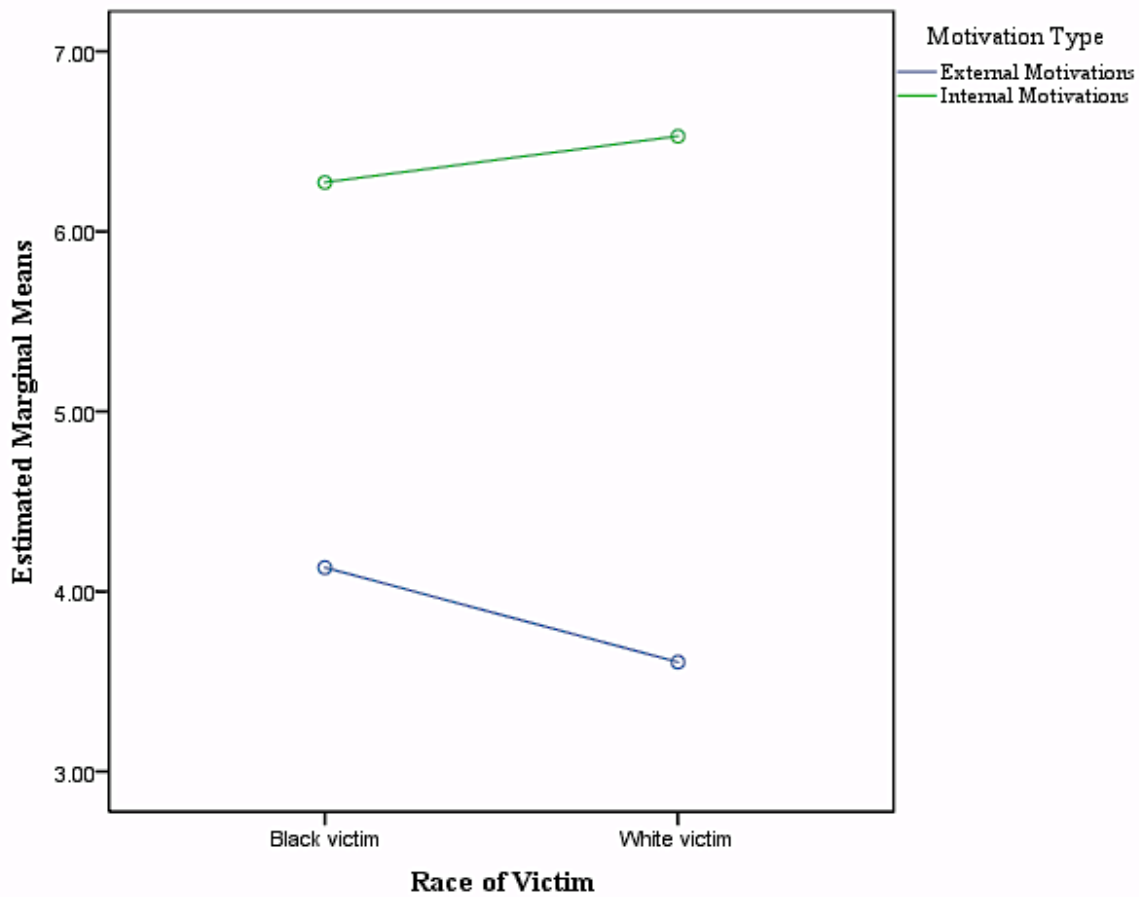


Figure 4.

Plot of estimated marginal means for Motivations To Respond Without Prejudice by race of victim



Appendix A

Testimony Transcript

Testimony 1: Black Stereotype Metaphors

Prosecutor: Officer Miller, everyone knows why you're here. Why don't you take us back to the night of Thursday, July 21st.

Officer: I was driving up Clarkson Avenue at around a quarter past midnight. It was dark but I noticed a man sitting on a bench. Second thing I noticed was that he was drinking a 40 ounce Olde English. I didn't know this at the time, but the man's name was Willie Johnson. When I pulled over and got out of the car and walked over to him, he kept on drinking from the bottle. I said, "can I see some identification?" He replied--well, um, it has some vulgarities.

Prosecutor: You can say it.

Officer: He replied, "fuck off," and when he said that, I guess it surprised me because I assumed the situation would proceed differently than that. So, I said, "excuse me, you're going to have to show me some kind of identification," but he gets up and starts walking away, so I said, "come back over here," and he turns back around. When I saw his face, the only way I know how to explain his expression is like a monster. We were ten, fifteen feet apart at this point and he was just standing there looking at me, so I tell him, "sir, you are going to need to cooperate. I am going to have to take you with me." He starts to feint--kind of doing a fake lunge at me a few times. I was real nervous about what could happen--it just didn't feel right, so I shout at him, "get over here," and then he actually lunged at me. He's charging, coming at me full force; he was like a tank! I shielded myself with my arms and looked away, so I don't completely remember what he did next but I felt a blow to my stomach. After that, we were going back and forth. It was all happening so fast I couldn't tell if he was pushing me or thrusting his arms at me, or trying to grip onto me, I don't know, but when I tried to stop him, to get hold of his arm, he was full on swinging sort of thrusting his arms around, I guess the only way I can describe it is like King Kong.

Prosecutor: King Kong?

Officer: Yeah, you know--from the movies. I remember thinking to myself, like, what do I do. I thought of using my mace, but I would have to get it out with my left hand which I wasn't willing to sacrifice, 'cause I was using it to block him. Even if I reached around with my right hand, it didn't seem like it would be very effective--like it would really stop him. I don't carry a taser and my baton was all the way back in the car. I can't even tell you if at that moment he was punching me or kicking me or pulling me. I didn't know what could happen. There was a lot going on at once, so I look away to try and think for a second. The only other option I could think of was my gun, so I pulled it out and shook him off as hard as I could, quickly detaching myself and turning away from him. I ordered him, I said, "stand down or I'll shoot," and then he swings at me again, I think he's trying to grab the gun from me but I start to duck and he hits me hard in the face. I had already taken a few punches so I thought this time it could be fatal if he hit me the right way.

Prosecutor: You thought if he hit you it could kill you?

Officer: I mean, yeah, or maybe I would go unconscious, and I mean if he got my gun, it would be over, I mean I'd be dead. So I shoot and there's this big crashing noise because it hits the windshield. I think the noise kind of shocked both of us, so he steps back and looks up at me again with that intense expression. He's getting ready to lunge at me, so I pull the trigger and it goes off again. He's hit and sort of stumbling down towards me. I see some blood. He's grunting-- sort of moaning, and he looks irritated, but it doesn't seem like he's done yet, so I shoot again and he falls to the ground on his back. I looked down at him and saw the aggression in his face wasn't there anymore and realized the threat had been stopped.

Testimony 2: Neutral Stereotype Metaphors

Prosecutor: Officer Miller, everyone knows why you're here. Why don't you take us back to the night of Thursday, July 21st.

Officer: I was driving up Clarkson Avenue at around a quarter past midnight. It was dark but I noticed a man sitting on a bench. Second thing I noticed was that he was drinking a 40 ounce Olde English. I didn't know this at the time, but the man's name was Willie Johnson. When I pulled over and got out of the car and walked over to him, he kept on drinking from the bottle. I said, "can I see some identification?" He replied--well, um, it has some vulgarities.

Prosecutor: You can say it.

Officer: He replied, "fuck off," and when he said that, I guess it surprised me because I assumed the situation would proceed differently than that. So, I said, "excuse me, you're going to have to show me some kind of identification," but he gets up and starts walking away, so I said, "come back over here," and he turns back around. When I saw his face, his expression was, like, superhuman. We were ten, fifteen feet apart at this point and he was just standing there looking at me, so I tell him, "sir, you are going to need to cooperate. I am going to have to take you with me." He starts to feint--kind of doing a fake lunge at me a few times. I was real nervous about what could happen--it just didn't feel right, so I shout at him, "get over here," and then he actually lunged at me. He's charging, coming at me full force; he was like an automaton. I shielded myself with my arms and looked away, so I don't completely remember what he did next but I felt a blow to my stomach. After that, we were going back and forth. It was all happening so fast I couldn't tell if he was pushing me or thrusting his arms at me, or trying to grip onto me, I don't know, but when I tried to stop him, to get hold of his arm, he was full on swinging sort of thrusting his arms around like some kind of subhuman.

Prosecutor: Subhuman?

Officer: Yeah, you know--he looked less than human. I remember thinking to myself, like, what do I do. I thought of using my mace, but I would have to get it out with my left hand which I wasn't willing to sacrifice, 'cause I was using it to block him. Even if I reached around with my right hand, it didn't seem like it would be very effective--like it would really stop him. I don't carry a taser and my baton was all the way back in the car. I can't even tell you if at that moment he was punching me or kicking me or pulling me. I didn't know what could happen. There was a lot going on at once, so I look away to try and think for a second. The only other option I could

think of was my gun, so I pulled it out and shook him off as hard as I could, quickly detaching myself and turning away from him. I ordered him, I said, “stand down or I’ll shoot,” and then he swings at me again, I think he’s trying to grab the gun from me but I start to duck and he hits me hard in the face. I had already taken a few punches so I thought this time it could be fatal if he hit me the right way.

Prosecutor: You thought if he hit you it could kill you?

Officer: I mean, yeah, or maybe I would go unconscious, and I mean if he got my gun, it would be over, I mean I’d be dead. So I shoot and there’s this big crashing noise because it hits the windshield. I think the noise kind of shocked both of us, so he steps back and looks up at me again with that intense expression. He’s getting ready to lunge at me, so I pull the trigger and it goes off again. He’s hit and sort of stumbling down towards me. I see some blood. He’s grunting-- sort of moaning, and he looks irritated, but it doesn’t seem like he’s done yet, so I shoot again and he falls to the ground on his back. I looked down at him and saw the aggression in his face wasn’t there anymore and realized the threat had been stopped.

Testimony 3: Non-metaphoric Semantically Similar Descriptors

Prosecutor: Officer Miller, everyone knows why you’re here. Why don’t you take us back to the night of Thursday, July 21st.

Officer: I was driving up Clarkson Avenue at around a quarter past midnight. It was dark but I noticed a man sitting on a bench. Second thing I noticed was that he was drinking a 40 ounce Olde English. I didn’t know this at the time, but the man’s name was Willie Johnson. When I pulled over and got out of the car and walked over to him, he kept on drinking from the bottle. I said, “can I see some identification?” He replied--well, um, it has some vulgarities.

Prosecutor: You can say it.

Officer: He replied, “fuck off,” and when he said that, I guess it surprised me because I assumed the situation would proceed differently than that. So, I said, “excuse me, you’re going to have to show me some kind of identification,” but he gets up and starts walking away, so I said, “come back over here,” and he turns back around. When I saw his face, the only way I know how to explain his expression is scary and evil looking. We were ten, fifteen feet apart at this point and he was just standing there looking at me, so I tell him, “sir, you are going to need to cooperate. I am going to have to take you with me.” He starts to feint--kind of doing a fake lunge at me a few times. I was real nervous about what could happen--it just didn’t feel right, so I shout at him, “get over here,” and then he actually lunged at me. He’s charging, coming at me full force--heavy and unstoppable. I shielded myself with my arms and looked away, so I don’t completely remember what he did next but I felt a blow to my stomach. After that, we were going back and forth. It was all happening so fast I couldn’t tell if he was pushing me or thrusting his arms at me, or trying to grip onto me, but when I tried to stop him, to get hold of his arm, he was full on swinging sort of thrusting his arms around wildly, and he was massive.

Prosecutor: Massive?

Officer: Yeah, he was really big. I remember thinking to myself, like, what do I do. I thought of

using my mace, but I would have to get it out with my left hand which I wasn't willing to sacrifice, 'cause I was using it to block him. Even if I reached around with my right hand, it didn't seem like it would be very effective-- like it would really stop him. I don't carry a taser and my baton was all the way back in the car. I can't even tell you if at that moment he was punching me or kicking me or pulling me. I didn't know what could happen. There was a lot going on at once, so I look away to try and think for a second. The only other option I could think of was my gun, so I pulled it out and shook him off as hard as I could, quickly detaching myself and turning away from him. I ordered him, I said, "stand down or I'll shoot," and then he swings at me again, I think he's trying to grab the gun from me but I start to duck and he hits me hard in the face. I had already taken a few punches so I thought this time it could be fatal if he hit me the right way.

Prosecutor: You thought if he hit you it could kill you?

Officer: I mean, yeah, or maybe I would go unconscious, and I mean if he got my gun, it would be over, I mean I'd be dead. So I shoot and there's this big crashing noise because it hits the windshield. I think the noise kind of shocked both of us, so he steps back and looks up at me again with that intense expression. He's getting ready to lunge at me, so I pull the trigger and it goes off again. He's hit and sort of stumbling down towards me. I see some blood. He's grunting-- sort of moaning, and he looks irritated, but it doesn't seem like he's done yet, so I shoot again and he falls to the ground on his back. I looked down at him and saw the aggression in his face wasn't there anymore and realized the threat had been stopped.

Appendix B

Research Study

This research explores how people think and reason about oral testimony. The study involves no more than minimal risk, (i.e., the level of risk encountered in daily life). You should be aware, however, that auditory content contains profanities and describes a violent altercation. You must be 18 years or older to participate in this study.

Participation typically takes 15-20 minutes and is strictly anonymous. You will begin by reading a three- sentence description of a fictional court case involving police violence and viewing photographic images of the individuals involved in the altercation. You will then listen to about 3.5 minutes of oral testimony provided by the police officer, after which you will answer a series of open-ended and multiple-choice questions about the testimony. Finally, you will engage in a matching game. Participation is voluntary. You may skip any question you do not wish to answer and may discontinue participation at any time without penalty or loss of benefits. If, after participating in the survey, you request that your data be withdrawn, you must do so by March 15th 2017.

The results of this study will be published in the form of a thesis and a poster, and potentially at conferences. All responses are treated as confidential and you are not required to provide any individual identifying information. In no case will individual participants be identified. Rather, all quantitative data will be pooled and published in aggregate form only, and any quotation of qualitative data will be anonymous.

If participants have further questions about this study or their rights, or if they wish to lodge a complaint or concern, they may contact the principal investigator, Aliza Spruch-Feiner, at (347) 495-0858, Mudd Library 203; Professor Cynthia Frantz of the Oberlin College Psychology Department, at (440) 775-8499, Severance Hall 211; or the Oberlin College Institutional Review Board at (440) 775-8410, Office of the Dean of Arts and Sciences, Cox 101. We recommend that you print a copy of this consent form for your records.

By clicking here, I affirm that I am over 18 and that I consent to participate in this study.

Imagine you are a juror on the following case. Please try to listen and respond to the testimony as if this is a real court case and you had to make a decision about whether the defendant should be tried in a criminal court. You will not be able to advance to the next page until you have finished listening to the testimony.

At approximately 12:30 AM, Officer Miller of the New York Police Department shot and killed Willie Johnson, an unarmed 25-year-old.



Willie Johnson



Officer Miller

The Criminal Section of the Department of Justice Civil Rights Division, the United States Attorney's Office for the District of New York, and the Federal Bureau of Investigation (FBI) has opened a criminal investigation into whether the shooting violated the applicable federal criminal civil rights statute, 18 U.S.C. § 242, which prohibits uses of deadly force that are "objectively unreasonable," as defined by the United States Supreme Court.

Instructions: Please listen to the testimony provided below in order to determine whether Officer Miller has violated the federal criminal civil rights statute, 18 U.S.C. § 242, which prohibits uses of deadly force that are "objectively unreasonable," as defined by the United States Supreme Court.

Imagine you are a juror on the following case. Please try to listen and respond to the testimony as if this is a real court case and you had to make a decision about whether the defendant should be tried in a criminal court. You will not be able to advance to the next page until you have finished listening to the testimony.

At approximately 12:30 AM, Officer Miller of the New York Police Department shot and killed Willie Johnson, an unarmed 25-year-old.



Willie Johnson



Officer Miller

The Criminal Section of the Department of Justice Civil Rights Division, the United States Attorney's Office for the District of New York, and the Federal Bureau of Investigation (FBI) has opened a criminal investigation into whether the shooting violated the applicable federal criminal civil rights statute, 18 U.S.C. § 242, which prohibits uses of deadly force that are "objectively unreasonable," as defined by the United States Supreme Court.

Instructions: Please listen to the testimony provided below in order to determine whether Officer Miller has violated the federal criminal civil rights statute, 18 U.S.C. § 242, which prohibits uses of deadly force that are "objectively unreasonable," as defined by the United States Supreme Court.

Based on the testimony, is there enough evidence for Officer Miller to be tried in a criminal court?

- Yes
- No

Please rate your level of confidence in your decision on the previous question.

	Not confident at all	Not confident	Not sure	Confident	Very confident
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is/are the most important factor(s) in your decision?

Please indicate which of the following weapons Officer Miller mentioned in his testimony?

- Knife
- Gun
- Baton
- Taser
- Staff
- Mace
- Club
- None

How trustworthy do you think Officer Miller's testimony is?

	Very untrustworthy	Somewhat untrustworthy	Neutral	Somewhat trustworthy	Very trustworthy
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How justified were Officer Miller's actions?

	Not justified at all	Somewhat not justified	Neutral	Somewhat justified	Very justified
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Did the actions taken by Willie Johnson necessitate the use of lethal weapons by Officer Miller?

	Definitely not	Probably not	Might or might not	Probably yes	Definitely yes
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate how much you personally agree or disagree with the following statements

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Police respond to minorities fairly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a lot of respect for the police	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The police always have a good reason when they stop somebody	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In spite of its problems, the American justice system is still the best in the world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The jury system is the most fair way to determine the guilt or innocence of a person accused of a crime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The courts let too many criminals go free on technicalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which of the following do you think is more important:

- Controlling gun ownership
- Protecting the right to own guns

The following questions concern various reasons or motivations people might have for trying to respond in nonprejudiced ways toward Black people. Some of the reasons reflect internal-personal motivations whereas others reflect more external-social motivations. Of course, people may be motivated for both internal and external reasons; we want to emphasize that neither type of motivation is by definition better than the other. In addition, we want to be clear that we are not evaluating you or your individual responses. All your responses will be completely confidential. We are simply trying to get an idea of the types of motivations that students in general have for responding in nonprejudiced ways. If we are to learn anything useful, it is important that you respond to each of the questions openly and honestly. Please give your response according to the scale below.

	1= Strongly disagree	2	3	4	5	6	7	8	9= Strongly agree
Because of today's PC (politically correct) standards I try to appear nonprejudiced toward Black people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to hide any negative thoughts about Black people in order to avoid negative reactions from others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I acted prejudiced toward Black people, I would be concerned that others would be angry with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I attempt to appear non-prejudiced toward Black	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>people in order to avoid disapproval from others.</p> <p>I try to act non-prejudiced toward Black people because of pressure from others.</p> <p>I attempt to act in non-prejudiced ways toward Black people because it is personally important to me.</p> <p>According to my personal values, using stereotypes about Black people is OK.</p> <p>I am personally motivated by my beliefs to be non-prejudiced toward Black people.</p> <p>Because of my personal values, I believe that using stereotypes about Black people is wrong.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Being non-prejudiced toward Black people is important to my self-concept.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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How would you classify yourself?

- Arab
- Asian, Pacific Islander
- African American/ Black
- Caucasian/ White
- Hispanic
- Indigenous or Aboriginal
- Latino
- Multiracial
- Other

Please indicate your birth sex.

- Male
- Female

Please select the gender that best applies to you.

- Male
- Female
- Gender neutral
- Trans*
- Other

What is your age?

- 25 or under
- 26-40
- 41-55
- 56 or older

Is your primary language English?

- Yes
- No

What is the highest level of education you have completed?

- High school or equivalent
- Vocational/ technical school
- Some college
- Bachelor's degree
- Master's degree
- Doctoral degree
- Professional degree
- Other

What is your political affiliation?

- Democrat
- Republican
- Independent
- None
- Other _____
- Rather not say

If you voted, whom did you vote for in the 2012 presidential election?

- Barack Obama
- Mitt Romney
- I did not vote
- Chose not to answer

If you voted, whom did you vote for in the most recent presidential election?

- Donald Trump
- Hillary Clinton
- Jill Stein
- Gary Johnson
- I did not vote
- Chose not to answer

Please drag the following images to the appropriate boxes listed below.

Barack Obama, 44th President of the United States of America	Peyton Manning, Former American football quarterback	George Lopez, American comedian, actor, and talk show host	Amal Clooney, Lebanese-British lawyer, activist, and author	Michelle Kwan, American figure skater, two-time Olympic medalist, five-time World champion and nine-time U.S. champion	Oprah Winfrey, American media proprietor, talk show host, actress, producer, and philanthropist	Condoleezza Rice, Former United States Secretary of State	Denzel Washington, Academy Award winning American actor, filmmaker, director, and producer.
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

(Images are excluded here)

If you have any additional comments or questions, please feel free to write them here.

Thank you for participating in the study, which investigates the cognitive effects of stereotypical metaphors. While often unnoticed, both metaphors and stereotypes are frequently used in casual dialogue. Although the ways in which metaphors and stereotypes independently influence reasoning and decision-making have been investigated, this study is important because the combined impact has not yet been thoroughly explored.

Metaphors and stereotypes both enact filtering effects that shift attention to information or features that cohere with the knowledge frame, category, or associations they promote, thus enabling other information or features to remain hidden. This study seeks to better understand

how auditory processing of stereotype-embedded metaphors influences how people think and make decisions in legal contexts like grand jury proceedings.

In this experiment, you were randomly assigned to one of six conditions. The image of the victim either portrayed a Black or White male and the testimony either used one of two different series of metaphors or a series of non-metaphoric semantic equivalents to describe the victim. You first read a brief description of a fictional case and the potential violation of federal law and viewed the image of a victim and a police officer. You then listened to your assigned version of the fictional testimony in order to determine whether the police officer should or should not be tried in a criminal court. The subsequent survey items assessed whether or not one's reasoning and final decision were influenced by the stereotypic metaphor's knowledge frame. In other words, these questions offered measures of whether the influence of stereotypes is greater when they are compacted into metaphorical frames than when they are communicated through non-metaphoric descriptive language. The final matching game task was included to promote positive perceptions of all people, regardless of race, ethnicity, or gender.

Again, thank you for your participation in this research. If you have further questions about this study or your rights, or if you wish to lodge a complaint or concern, you may contact the principal investigator, Aliza Spruch-Feiner, at (347) 495-0858, Mudd Library 203; Professor Cynthia Frantz of the Oberlin College Psychology Department, at (440) 775-8499, Severance Hall 211; or the Oberlin College Institutional Review Board at (440) 775-8410, Office of the Dean of Arts and Sciences, Cox 101.