Redefining the Eyewitness: An Examination and Proposed Solution to
The Cross-Race Effect in Eyewitness Identifications

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Abstract

The CRE is the propensity for individuals to more accurately remember faces of the same race, when compared to members of another race. This phenomenon has massive implications for the legal system, where often members of other races are asked to identify perpetrators to crimes. The following paper examines the CRE through the evolution of research into the mechanism of the effect—from perceptual contact theories, to more dynamic social cognitive theories. The implications of the models are related back to eyewitnesses in the legal system, and eyewitness identification procedures are examined. A proposed standard for basic eyewitness identification procedure is forwarded in an attempt to mitigate the effects of the CRE that make it to the courtroom. An experiment is proposed to test if these proposed procedures reduce the presence of the CRE in the courtroom.
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The Cross-Race Effect (CRE; also known as own-race bias, and cross-race recognition
Deficit) is the propensity for individuals to more accurately remember faces of the same race
(SR), when compared to members of another race (OR) (e.g. Meissner & Brigham, 2001; Sporer,
2001; Ng & Lindsay, 1994). The CRE has been researched for decades, and decidedly labelled
robust by many social scientists (e.g. Meissner & Brigham, 2001; Young, Hugenberg, Bernstein
& Sacco, 1994; Johnson 1984). This phenomenon has been demonstrated to be consistent
between many racial groups, and observed in many geographical regions and populations with
varying degrees of racial diversity (e.g. Meissner & Brigham, 2001; Ma, Yang & Han, 2011).
Interesting in its own right, the CRE posits massive implications once combined with tasks in
which an individual has to identify a member of another race. In the criminal justice domain, the
consequences of systematic biases in racial identifications can be especially perilous. Indeed,
inaccurate cross-racial identifications have led to wrongful convictions, as demonstrated by
exonerations from the Innocence Project (2014), and a meta-analysis of thirty years of CRE
research completed by Meissner and Brigham (2001).

Inaccurate eyewitness testimony, regardless of race, has been annotated as the leading
single cause of wrongful convictions in the United States (e.g. Natarajan, 2003; Wells, 1993;
Kassin, Tubb, Hosch, & Memon, 2001). Conservative estimates suggest at least 36% of
exonerated misidentifications involved cross-racial participants (Scheck, Neufeild, & Dwyer,
2003; Meissner & Brigham, 2001). However, annotating this estimate as derived from
exonerations is an important distinction—exonerations only arise from unpredicted and rare
circumstances. An unpredictable circumstance must first raise the question of the accuracy of the
verdict, and; evidence (like DNA, or forced confession) must be available that was not during the
original trial—a rarity (Natarajan, 2003). This implies the number of actual cross-racial misidentifications could be much higher, with very real implications for the innocent currently incarcerated. The CRE poses an interesting conundrum for the court system, who has yet to establish any barring precedents on the matter. Currently, the legal precedent prefers system variable fixes. That is, using expert testimony, jury instruction, or witness cross-examination during trial to inform the court of the existence, and possible influence of the CRE. These system variable fixes attempt to correct potential inaccuracy brought into the system before the trial—faulty eye witness identification done during the investigation (Wells, 1993; Natarajan, 2003; Clark, 2005). This paper proposes techniques to be implemented during lineup identifications in cross-race cases, and an experiment to test the propensity of these techniques to mitigate the CRE’s presence in the courtroom. If the effects of the CRE can be mitigated at the moment of eyewitness identification, there will be no need for more elaborate, expensive, and time consuming in trial system variable fixes that are currently, and sparingly employed. Throughout the extensive research lifespan of the CRE, psychologists and theorizers have been debating the mechanism(s) responsible for the effect, in an effort to minimize the massive social implications (e.g. Young et al. 2011; Meissner & Brigham, 2001; Ng & Lindsay 1994; Sporer, 2001; Hugenberg, Bernstein & Sacco 2010). An outline of this progression is necessary for an understanding of both the implications of the CRE itself, and potential fixes to the problems it presents.

The Cross-Race Effect: A Search for a Mechanism

The CRE has been researched and replicated for decades among various populations around the globe. As such the literature is extensive. The models of the effect are rich in both theories and contexts. A positive side effect of the massive literature pool is the existence of
meta-analyses; notably Meissner and Brigham (2001) and Young et al. (2011); to a lesser extent, the meta-like explanations found later in social cognitive models of the CRE (Hugenberg, Young, Bernstein, and Sacco, 2010; Sporer, 2001).

At the onset of the research, scholars postulated a perceptual mechanism underlying the CRE (e.g. Brigham & Malpass, 1985; Sigelman & Welch, 1993; see Meissner & Brigham, 2001 for a thorough review). This is perhaps an intuitive connection—one learns to encode faces as one learns many behaviors. An individual who spends a majority of their time with same race (SR) interactions will show effects of the CRE, as they can more accurately encode, and recall SR faces due to more interaction and practice. Thus, variations in the CRE can be attributed to differential processing at the perceptual level of the perceiver (e.g. Brigham & Malpass, 1985, Young et al., 2011; Tanaka, 2001). An experimental test of this mechanism is also intuitive—minority populations, and near-equally distributed cross-racial populations should show decreased effects of the CRE, with highly racially stratified populations demonstrating a more pronounced CRE. Feinman and Entwisle (1976), demonstrated children in more racially diverse school districts show less CRE, compared to those in more race homogenous districts. Wright, Boyd, and Tredoux (2003) demonstrated the perceptual connection by showing the CRE is less pronounced for Blacks living in South Africa (though the social implications of apartheid government will be explored later), and the effect is correlated with self-report contact with OR individuals. That is to say, South African Blacks who self-report as interacting often with South African Whites show less CRE than those who reported less frequent contact. The contact hypothesis also implies the CRE can be eliminated by increasing the quality of contact with OR individuals. Elliot, Willis and Goldstein (1948) provided evidence for this implication. They demonstrated that with minimal training in identifying Asian faces (a couple of hours), the
effects of the CRE were mitigated completely for Whites identifying Asian faces. The controls that did not get the training revealed a CRE. The CRE mitigating effects were short lived however—training, or quality of contact, and increased contact may not be an enduring fix to the CRE.

However intuitive, and seemingly sound the contact hypothesis appears in regards to the CRE, meta-analysis has shown only a very small amount of the variation among samples is from self-reported contact—about 2% of the variance total (Meissner & Brigham, 2001). Meissner and Brigham (2001) also revealed the implications of the contact hypothesis are not accurate predictors of CRE levels. Though contact will have an effect on the CRE, it is not the mechanism behind it—if it were, quality and quantity of OR contact would predict the rate of the CRE. It does not do this with admirable accuracy (e.g. Young et al., 2011; Hugenberg et al., 2010; Meissner & Brigham, 2001; Sporer, 2001). More recent research has implicated a social cognitive mechanism of the CRE indicative of Social Identity theory, pioneered by Tajfel (1982). Social Identity theory brings a myriad of interesting and perplexing implications to the CRE. Perhaps most notably, attention to the mediating variable—it may not even be race per se, rather an in-group bias derived from any self-categorization. An individual is more prone to look at their in-group in a more positive regard compared to an out-group; from here the CRE manifests itself in aggregate behavior, with race being merely a salient in-group predictor (e.g. Sporer, 2001; Hugenberg et al., 2010). Herein lies the mechanism for CRE-like effects within Social Identity theory—the tendency to individuate in-group members, and categorize out-group members (Tajfel, 1982; Hugenberg et al., 2010). That is, an individual is more motivated to search out unique and individuating traits of in-group members, and less-so for out-group members—opting for heuristic-like categorization processes that lowers the motivation to
dutifully encode, and later recall, an out-group member’s face. Newer models of the CRE are
ground in Social Identity theory, with a nod to the influence of prolonged and/or meaningful
contact found earlier in contact hypotheses. These models, though mostly described as social
cognitive, could perhaps be better described as hybrid (Meissner & Brigham, 2001; Hugenberg
et al., 2010; Ng & Lindsay, 1994). They do not discount perceptual influences, but they do place
motivation to encode faces (derived from in-group biases) atop the CRE food chain—the CRE
will be better predicted by the perceivers motivation to remember a face, which is influenced
greatly by social identity, and less so by historical contact (Sporer, 2001; Hugenberg et al.,
2010).

Converging evidence supports the causal role of social identity processes in the CRE (e.g.
Pauker et al., 2009; Shriver et al., 2008; Baldwin, Keefer, Gravelin, & Biernat, 2013; Bernstein,
Young, & Hugenberg, 2007). In Pauker et al. (2009), ambiguous race faces (biracial faces whose
racial in-group was not entirely apparent) were labelled by the experimenters to certain groups
(Black or White) by putting racial labels on the pictures themselves. The results demonstrated
that the CRE can be manipulated in this fashion—by merely labelling an individual, white
participants were more accurate at recalling and identifying the ambiguous faces labeled as
white, and the CRE was evident in ambiguous faces labeled black for white perceivers. Social
identity theory also posits this phenomenon will be apparent for not just racial in-groups, but all
socially relevant in-groups (subjective to the perceiver) will elicit the effect. This was
demonstrated in Shriver et al. (2008). Middle class Whites were ask to encode the faces of other
whites, however the photos to be encoded were either labeled as poor, or upper class. The middle
class white perceivers, presumably acting under the impression upper class was more their in-
group than the poor, recognized the upper class whites more accurately, and demonstrated a
CRE-like effect for the recollection of poor whites. This is significant because of the SR participants and portraits used—CRE-like effects can be produced without the presence of race. This finding was supported by Baldwin et al. (2013), and Bernstein, Young, and Hugenberg (2007), who demonstrated CRE-like effects can be readily elicited when the in-groups are not race-related; i.e. arbitrary personality metrics, the University you attend, and even the color of the background behind a portrait. Returning to South African blacks who showed no CRE for South African whites, a salient in-group was created during apartheid government. Although race was present as a variable, Shriver et al. (2008) demonstrated power and social class was enough to elicited CRE effects. In South Africa, a majority of the population is black, however, a majority of the government and economic power is controlled by whites (Especially during apartheid). It could be, under social cognitive influences, that the reason for an absence of the CRE in this experiment wasn’t because of increased contact, but because of competing social constructs—a majority population versus minority power.

*Modern Neuroscience and Current Research*

The Dynamic nature of the CRE becomes even more pronounced when modern neuroscience enters CRE research. Golby, Gabrieli, Chiao, and Eberhardt (2001) found differences in brain activity using fMRI (functional Magnetic Resonance Imaging) scans as participants viewed SR and OR faces. The neuroscientists found differences in activity within the fusiform gyrus, a region in the brain often attributed as a major player in facial and recognition memory. The activity in the Fusiform was more pronounced when a participant viewed a SR face, as opposed to an OR face. Cunningham et al. (2003) used a very similar technique, but focus on activity in the amygdala. They found the structure to be more involved when participants viewed OR faces, and less active when viewing SR faces. In this vein, Ma, Yang,
and Han (2011) designed impressive experiments, with impressive results. The experimenters ingeniously devised a way to measure implicit racial bias to faces, in a perceptual task that was race-irrelevant. This was accomplished by having Asians and Americans annotate the orientation of an Asian or American face as quickly as they could. The faces where either facing slightly to the left, or slightly to the right—the participants only had to annotate orientation, either left or right—race was entirely irrelevant to the task. It would not help a participant to differentiate based on race. However, Ma, Yang and Han found there was a significant difference in reaction times for SR and OR faces. Participants annotated the orientation of SR faces more quickly compared to OR faces—implying a bias to SR faces. Further, Ma, Yang and Han (2011) reversed the effect by negatively priming participants. The CRE-like effect was entirely removed when participants were asked to select negative traits that may define their in-group before the race irrelevant task. True to Social Identity theory, Ma, Yang, and Han’s experiment demonstrated manipulating the positive regard of ones in-group may remove some of the motivation to individuate, and thus remove the CRE. The experimenters also found the original CRE-like bias correlated with an Implicit Association Test on race taken before the race-irrelevant task.

Current research at the University of Minnesota\(^2\) explores implicit bias and the CRE. The research endeavors to explain the relationship between implicit bias, categorization, and the CRE. If implicit bias is a mechanism for categorization, and categorization a good predictor of CRE, then scores on a racial IAT should correlate with levels of the CRE. The research also intends to possibly find a connection between a more liberal response criterion for OR lineups and racial IAT scores. Response criterion is the threshold amount of certainty an individual must

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\(^2\) This is the research the author is currently involved in. Information for the research was derived from conversations with the head researcher (Joe Vitriol, PhD Student, Social Psychology; University of Minnesota, Twin Cities), data collection experiences, and an IRB prepared by Kyle Kurowski on file with the author. IRB number was not specified.
have to make an identification—a major factor in the eyewitness context. That is to say, those participants who score higher on implicit racial bias could also have a lower (more liberal) threshold on their certainty to make an identification—they may be more willing to make an identification with lower certainty, possibly leading to more misidentifications. The examination of the CRE above shows the need and the space the current research could potentially fill. However, the research is only in the data collection phase, and it’s relevance to the literature, though evident theoretically, remains to be seen.

Eyewitness Identifications and attempts to mitigate the CRE

Law may be hesitant to admit it has a potential problem with the CRE. Recent exonerations, and modern research imply a problem may not only exist, but it could potentially be quite large with dire implications for the efficacy of law, perhaps going beyond eyewitnesses (does the CRE, and mechanisms that vary the CRE, affect jurors, judges, lawyers, and investigators?). However, the holistic impact of the CRE and its mediating variables on law, though interesting with effects on society and social justice for everyone, is not a focus of this paper, and perhaps best left to the legal scholars. We can be certain, however, that eyewitness misidentification is the single most responsible metric for wrongful verdicts, regardless of race (e.g. Natarajan, 2003; Wells, 1993; Kassin, Tubb, Hosch, & Memon, 2001). It is also true, that eyewitness cross-racial identifications have produced wrongful convictions (e.g. Innocence Project, 2014). From the explanation above, one can conclude the CRE plays a major role in recognition and identification of OR faces (e.g. Meissner & Brigham, 2001; Young et al., 2011), and many eyewitness scenarios entail this dynamic (e.g. Johnson, 1984; Natarajan 2003; Aaronson, 2008). Natarajan (2003) even goes as far to say, defendants accused of a crime based solely on OR eyewitness accounts are not afforded due process under the United States
Constitution. This is not an uncommon scenario, nor an entirely bold claim. Based on old/new recognition paradigms in experiments, a black suspect has a 56% greater chance of being wrongly identified if all other eyewitness variables are held constant. That is, with seemingly no influence outside of the CRE, a white eyewitness is 56% more likely to identify a novel black face as recognized, and thus misidentified, compared to white SR novel faces (Meissner & Brigham, 2001; Natarajan, 2003). This is clearly a breach of the egalitarian concepts law strives for, and perhaps a lapse in due process as Natarajan suggests. Regardless to the degree of the problem, we can safely assume a problem exists. Some courts have agreed with this assessment and have introduced system variable fixes, which are variables the courts can control, during trials. In 2008, based on an article written by Aaronson, the American Bar Association suggested states make jurors aware of the CRE if it is applicable in the case—through jury instruction. If OR identification is a pivotal point to the prosecution, then the jury should be made aware of the CRE. Other theorizers suggest expert witnesses, namely psychologists with backgrounds in the CRE, should testify to the possible influence of the effect (e.g. Aaronson, 2008; Abshire, & Bornstein, 2003). Natarajan (2003) suggest the use of a complicated test that would decipher the importance of the CRE in the context of the case, and a certain threshold would require special lineup techniques, and perhaps other system variable controls like those mentioned above. Whether these techniques would be successful in mitigating the CRE is unclear. Abshire and Bornstein (2003) have shown, using mock jurors and trials, that jurors are insensitive to the effects of CRE. That is to say, even when they are aware that OR identifications are more prone to errors, the overall verdicts and sentencing do not reflect any consideration of this idea. However, design flaws may lower the generalizability of this experiment, as the OR identifications could be construed as not pivotal to the case—there was other evidence outside of
OR identification that suggested the defendant’s guilt. There is, however, a greater flaw in the logic of these possible fixes. Each is an attempt to correct a possible error introduced in the system by faulty eyewitness identifications. Juror instruction, or expert testimony is an attempt to inform, and in theory, insulate the jury of a possible error made by the eyewitness, not an actual error. That is to say, if a psychologist is an expert witness, he can only say some people misidentify people of another race, some of the time—and the variables that moderate this interaction are not fully understood. They could not say if the CRE happened in this case, or if it was even likely to have happened; current research and inherent limitations to statistical tests do not allow any certainty for the psychologist. He can only be certain, that the effect exists, but only in some people, in some cases. How will this lack of certainty be interpreted by layman jurors? Do they understand the nuances of statistics, and what the psychologist is actually saying?

Herein lies the biggest issue with jury instruction, expert testimony, and generally, the CRE in a legal context—certainty. Although Abshire and Bornstein (2003) tentatively demonstrated jurors are insensitive to the CRE, there was much less doubt jurors are highly sensitive to eyewitness confidence. This is intuitive; if an eyewitness, the person who was there at the crime, is sure he is correct in his identification, the jury tends to believe them. However, many experiments have demonstrated, the correlation between eyewitness confidence and accuracy is tenuous at best (Cutler, Penrod and Stuve, 1988; Bothwell, Deffenbacher, & Brigham, 1987; Robinson & Johnson, 1996; Kassin et al., 2001). This phenomenon is certain to exist outside of the lab, given exonerations from eyewitness dependent cases—jurors have made incorrect guilty verdicts based on eyewitness identification. In the context of the layman eyewitness/juror and the CRE, this lapse in correlation between confidence and accuracy
becomes understandable—if one does not know the CRE could affect their accuracy, how could it affect their confidence? This question is at the heart of the introduced proposal to mitigate the CRE’s effect in the court room—an eyewitness does not knowingly choose the wrong perpetrator.

*What it is to be an Eyewitness, and Proposed Solution to CRE Effects in the Courtroom*

The biggest flaws the author sees in current mitigation tactics is they try to account for a potential problem that was introduced into the system prior to the trial, and lineup procedures rarely follow CRE mitigating tactics (Wells, 1993; Wells & Olsen, 2001). It seems counter intuitive to put energy into system variables aimed at control of the CRE during the trial phase, when the CRE could potentially be mitigated at the time of identification—especially considering the wide variety of lineup procedures currently employed. A common lineup procedure could help mitigate the effects of the CRE in the courtroom, like the one to be proposed. Meissner and Brigham (2001) made note that the response criterion in OR identifications tended to be more liberal. This is a significant finding, as it was a meta-analysis—this trend is found throughout multiple studies. Current research at the University of Minnesota is also taking response criterion into account. The phenomenon may be a product of how we conduct lineups, and how we perceive an eyewitness that contribute to the CRE. There may be a sentiment, exacerbated by conflicts of interest of law enforcement (they want to close a case) that an eyewitness was at the crime, and saw the perpetrator—they now have an obligation to make an identification. That is to say, especially in cases where there is only one, or a couple eyewitnesses, the eyewitness may feel obligated to make an identification, even though they are not certain. Eyewitnesses may feel they are the best chance to solve the crime and provide justice, or perhaps even perceive themselves as part of the in-group with law enforcement, or as
members of the community (Thus making the individuals in the lineup potential out-group members). In-group bias and implications of social identity theory insinuate that it may be easier to make a less-than-certain identification on OR lineups. The response criterion being more liberal for OR identifications in meta-analysis corroborates this notion (Meissner & Brigham 2001). Motivations for this feeling of obligation could run a proverbial gamut—helping the police, helping the community, and providing justice for the victim (if applicable) or the prosecution—all of which could be perceived as an in-group. These motivations could compete directly against the motivation to make the right (true) choice, _especially_ through the lens of in-group bias.

There may even be a notion, that if you cannot recall the face of the perpetrator now, you may be able to when you see them in a lineup, or the uncertainty-reduction tactic mentioned by Wells (1993). Though commonly employed, this may not be conducive to egalitarian justice. Wells also comments on the sincerity of an eyewitness; even when they are wrong, it is not their intention. There is merit to this idea, however, there are different ideas to be right by—a layman may confuse solving a case with truth—they may think solving the case is the right thing to do. However, solving a case, and being true are mutually exclusive ideas made evident through exonerations. The efficacy of law depends on the motivation to be true superseding all others. For an eyewitness, a layman not privy to the nuances of law, this may not always be the case, though the sincerity exists. The CRE may be exacerbated.

A way to reduce the feeling of obligation, revert sincerity to truth seeking, and perhaps increase the response criterion and lower the rate of misidentifications mitigating the presence of the CRE, is to redefine what it means to be an eyewitness in OR identifications, and conduct proper, standardized lineups. Namely, break eyewitnesses up into two categories; those who are
an eyewitness to a crime, and; those who are an eyewitness to the identity of the perpetrator of a crime. This distinction may seem arbitrary at first, but critical examination reveals these two categories have different implications. Perhaps the best evidence for the distinction is in Kassin et al. (2001); sixty-four psychologists took a questionnaire asking what psychological phenomenon are worthy of expert testimony in regards to eyewitnesses. That is, psychologists were asked to annotate which, out of 30 constructs, are robust enough to inform the jury about during arbitration for eyewitness identifications. 16 constructs were selected as robust enough to inform the jury, and of these 16, 11 were directly related to recognition memory, or metrics that could affect proper face recognition and identification, including the CRE. The remaining 5 were recall memory, and general information based. This demonstrates that if psychologists were to be expert witnesses on eyewitnesses generally, a majority of their energy would be spent on the ills of recognition memory—*not* memory in general.

The distinction of what type of eyewitness the eyewitness is, is made by the eyewitness themselves, though never explicitly. This is done through instructions during a lineup. Taking into account the motivations of eyewitness to make an identification above, labeling an eyewitness overtly may elicit the same motivations to make an identification—the eyewitness wants to be helpful, and being labelled as an eyewitness who can make and identification may seem more desirable. This means the lineup instructions to be proposed have multiple duties; not only to inform the eyewitness of the procedure, but also to prompt the eyewitness to evaluate their own memory; *and* categorize themselves implicitly. Currently, instructions are devised at a state (and even lower) level, meaning there is a lot of variance in lineup instructions, and administrations (Wells, 1993). The proposed instruction for the standardized lineup is as follows:
You will be shown a lineup of individuals for the purpose of identifying a suspect. Attempt to recall the face of the person(s) you witnessed. Envision the face of the individual(s) you witnessed now, and assess your level of certainty. There are many factors that contribute to accurate facial recognition memory, including stress, duration of exposure, and race of the individual. If you are not confident you can accurately identify the face of the perpetrator, your details of general information will help the case.

Inaccurate eyewitness identifications are the biggest source of wrongful convictions. Justice, and continuing faith in the legal system, require you to be accurate. You are under no obligation to make an identification—it is better to make no identification, than to make an inaccurate one. The suspect may or may not be present in the lineup.

By prompting the eyewitness to internally evaluate the degree at which they remember the face, the distinction of what type of eyewitness they are (an eyewitness to the crime; or the perpetrator of the crime) is essentially made by the eyewitness themselves. This is bolstered further by making no identification an option, and highlighting misidentifications as a threat to the system. If both liberal response criterion, and an obligation to make an identification are made more accurate through self-categorization of the eyewitness, a proper lineup procedure could prove to mitigate the remaining CRE effects and perhaps other own-group biases.
A proper lineup contains fillers (individuals in the lineup who are known to be innocent) that are similar looking to the actual suspect (e.g. Hugenberg, Miller, Claypool, 2007; Wells & Olsen 2001) and a target present/absent dynamic (Wells 1993). That is, there are conditions in the lineup where the target is not present. Wells (1993) suggests a lineup without the target is first used, and the eyewitness only progresses to the second lineup with the target if they correctly made no identification. Using the proposed instructions, the eyewitness is not informed there will be a second lineup. This could help control further for misidentifications, and is in line with Wells recommendations. This tactic will be adopted in my proposal. A lineup with target present/absent dynamics can be given in two ways: All individuals in the lineup shown at the same time, or each individual is presented alone, sequentially, and the eyewitness only see the next photo if they do not identify the previous (Wells, 1993). Either way, a lineup of 6-12 fillers should be sufficient. A sequential lineup procedure has shown to mitigate misidentifications the best, and may be a truer metric on the accuracy-confidence correlation. My proposal will adopt a more conventional lineup of 6 faces simultaneously shown, but a sequential lineup could be added as a third variable.

The CRE is not just an eyewitness phenomenon. The constructors of the lineup will also be the same race to the target—if the CRE is as robust as the research entails, an OR lineup constructor could make lineups where the fillers are not adequately similar, leaving the target (who is presumed innocent, until convicted) not adequately protected (Wells, 1993). My proposal will also adopt this tactic. With the eyewitness empowered to be truthful to themselves about the recollection and not pressured to make an identification, and a lineup that controls for the CRE as well as it can, the amount of
CRE IN EYEWITNESS IDENTIFICATIONS

CRE that is introduced into the system by the estimator variable eyewitness should be lower, if not substantially lower than it currently is. Controlling for the CRE (and other in-group biases) at the identification phase will not only streamline the legal process, but increase the efficacy of law.

Method

Participants

The likely demographic will be college age males and females, but limitations on participants will be small, as anyone could potentially be an eyewitness to a crime. All participants must be over 16 years of age. The main limitation to participants will be race—an even distribution of black to white participants would be ideal, and all other races excluded from the study. This is because race of the target, specifically black and white, is a variable that will be either the same race, or other race to the identifier. As such, only black and white participants will be used.

Design

The study will be a 2 (target race) x 2 (encoding) x 2 (Instructions) mixed factorial. The facets of target race are either (1) same race, or (2) other race. The facets for encoding are (1) being prompted to encode the targets or (2) no prompt to encode the target faces. The facets for instructions are (1) proposed instructions or (2) “unbiased” instructions as annotated in meta-analysis of lineup instruction performed by Clark (2005) (see appendix for both instructions). The independent variables will be (1) the race of the target; (2) encoding prompt; and (3) the instructions used. The dependent variables will be (1) the accuracy of same race identifications and (2) the accuracy of other race identifications.
Materials

Current research by Vitriol (in progress) at the University of Minnesota utilizes computer software for both filler tasks, and encoding/selecting black and white targets that have already been pre-screened for similarity and salient identifiable traits. Pictures of both black and white targets (20 of each group) must be selected, and screened for similarity in line with uncertainty-reduction tactics, and SR lineup constructors (Wells, 1993). This experiment can be done without computer software, however. Of the 20 portraits collected and screened from each race, 2 will be selected as targets, and the rest will be used to randomly generate 6 person lineups, all members of the lineup being of the same race.

Procedure

A pre-test will first be given to assess demographics, Modern Racism Scale, and prior experience with OR. This can be done days to hours in advance of the experiment. Certain metrics, like experience with OR, or racism could be used as estimator variables during later analysis.

The initial phase of the experiment will involve a filler task to “warm-up” the participant, and get them used to the environment and experiment procedure. The Vitriol experiment uses a crime prime during the filler tasks, and this could be employed to enhance realism, or added as another variable to the factorial model.

The participants will then be shown the 4 targets (2 black and 2 white) in a randomized order. They will be shown, or flashed on the screen for 5-10 seconds individually. The experiment condition participants will not be told to encode these faces, or even why they are being shown. The control condition participants will be told to
encode the faces to be recalled later. This is to provide variance at encoding, to see if the behaviors are different at recall with differing instructions.

Next, participants will partake in a cognitively demanding filler task. This is to simulate the passing of time between encoding at the crime, and making an identification later.

Participants will then be given lineup instructions—the experiment group given the new proposed instruction, and the control group given the current “unbiased” version. The experiment is mixed factorial in design because the designation of control and experiment groups in this portion are not the same as the encoding prompt. That is, some participants will be given the control prompt for encoding, but the experiment instructions at recall, and vice versa. Other participants may only experience control facets for both metrics, and others, the experiment facets. Each type of lineup instructions will be subject to each type of encoding prompt.

Participants will next be shown the generated lineups, each race getting 2 sequential lineups. The first lineup for each race will be a dummy lineup, and have no target. The participant only moves to the second target line-up if they correctly make no identification in the first. For the purposes of results and clarity, although the participants will see two lineups for each race (the first being a dummy) they are only scored on the race as a whole. That is, participants are scored as correct or incorrect for the race, and not each lineup. Making a correct no identification on the dummy lineup, and then a correct identification on the second is not 2 correct lineup answers, it is only 1—the dummy and target lineups, though seen separately, are actually better perceived as one large lineup, and are scored accordingly.
Results

To support the hypothesis, those who received the new proposed instructions must make less misidentifications. This is done by either making a correct identification, or making no identification on the second (target present) lineup. It is counterintuitive to count a no identification when the target is present as correct, however, the point of this experiment is not to increase the accuracy of identifications, as that is not applicable in an eyewitness scenario, but to reduce misidentifications, and thus, the CRE.

Discussion

An obvious criticism to this approach is it may glorify or promote no identifications. This is not the case. Those eyewitnesses, or participants in the study who are certain about an identification, will still make the identification—that is still the goal of the task. The new instructions and lineup procedures are designed to stop those who are not certain from making an identification—this is paramount for the efficacy of law. It may lower the amount of admissible identifications, yes. But eyewitness testimony is powerful, and the confidence of the eyewitness can influence juries—given exonerations, it may be fair to say less should be admissible. Practical application of this idea falls squarely on local law enforcement. None of the proposed steps are massive changes to current lineup procedures (Wells, 1993; Clark 2005), and in that sense, entirely applicable. However, the metric of performance for law enforcement agencies is often solved cases. Eyewitness testimony is a powerful source of evidence to solve cases. Any change that makes eyewitness evidence both harder to obtain, and identifications made less often may be a hard sell to law enforcement communities. It may be more economical in the long run—less time and money spent on system variable fixes during
trial. In this sense, the proposed lineup procedures may streamline the legal process, resulting in better performing, more efficient law enforcement.

It is also important to mention any significant result in the direction of the hypothesis could be exacerbated in reality. The experiment uses the same portraits for both encoding and recall. In reality, time will have passed between the crime (encoding) and making an identification on a lineup (recall). The target will be different at lineup than at the crime—clothes, lighting, hair, scars, etc. Also, Participants in the experiment will not be subject to the same influences that real eyewitness would encounter over time. The proposed procedure could possibly become more applicable as time increases between encoding and recall.

Given the implications of the possible social cognitive mechanisms of the CRE, the proposed procedure would not only help control for the CRE in the courtroom, but also other in-group out-group biases that may be present at the time of eyewitness identification. As explained above, the eyewitness could perceive themselves to be part of any number of in-groups during the identification process. The purpose of this proposal is to mitigate the effect the CRE has inside the courtroom. It is a sort of quality control for the legal process—in order for the system variables to have their intended effect on the process, the information brought into the system needs to be as accurate as possible. The CRE is merely one consideration to be given to eyewitness identification accuracy, but the proposed solution may be a step toward reducing the effect they have inside the courtroom. It is not just those who were misidentified and wrongly convicted that this issue has relevance, but all who depend on society, and believe in justice.
References


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Appendix

Proposed Instruction:

You will be shown a lineup of individuals for the purpose of identifying a suspect. Attempt to recall the face of the person(s) you witnessed. Envision the face of the individual(s) you witnessed now, and assess your level of certainty. There are many factors that contribute to accurate facial recognition memory, including stress, duration of exposure, and race of the individual. If you are not confident you can accurately identify the face of the perpetrator, your details of general information will help the case.

Inaccurate eyewitness identifications are the biggest source of wrongful convictions. Justice, and continuing faith in the legal system, require you to be accurate. You are under no obligation to make an identification—it is better to make no identification, than to make an inaccurate one. The suspect may or may not be present in the lineup.

“Unbiased” Instruction:

You will be shown a lineup for the purposes of identifying a suspect. The suspect may or may not be present in the lineup.

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3 There is no standard in lineup instruction given. A pseudo-standard according to Clark (2005) is the “unbiased” instruction, which is the inclusion of “The suspect may or may not be present.” Some instructions are more complicated than my proposed version, and others are as simple as “Is this the guy?” when shown a single suspect. “Biased” versions of the instruction could include “nudges” where the official running the lineup insinuates the eyewitness must make an identification.