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The Effect of Facial Resemblance on Alibi Credibility and Final Verdicts

Claudia Ochoa
University of Texas at El Paso, cochoa3@miners.utep.edu

THE EFFECT OF FACIAL RESEMBLANCE ON ALIBI

CREDIBILITY AND FINAL VERDICTS

CLAUDIA OCHOA

Department of Psychology

APPROVED:

_____

Harmon M. Hosch, Ph.D., Chair

_____

Wendy S. Francis, Ph.D.

_____

Matthew Scullin, Ph.D.

_____

Brent G. McCune, JD, MS

_____

Patricia D. Witherspoon, Ph.D.
Dean of the Graduate School

THE EFFECT OF FACIAL RESEMBLANCE ON ALIBI
CREDIBILITY AND FINAL VERDICTS

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CLAUDIA OCHOA, B.A.

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Abstract

The purpose of this study was to examine an extra-legal variable that may affect the credibility of a defendant and the alibi corroborator's testimonies. In this study, the facial appearance of the alibi corroborator was manipulated to resemble the defendant or the trial judge to different degrees using facial morphing software. Participants serving as mock jurors provided verdicts for a trial summary and rated the credibility of an alibi corroborator. It was hypothesized that as the facial resemblance shared between an alibi corroborator and a defendant increased, the less credible the alibi corroborator's testimony would be perceived, resulting in an increase of conviction rates for the defendant. On the other hand, when the alibi corroborator resembled the judge, it was hypothesized that the credibility of the alibi corroborator would increase and this would result in fewer convictions. The results revealed that when the facial resemblance was 66%, the defendant was significantly more likely to be convicted, $\chi^2(1) = 5.00$, $p = 0.03$, $\Phi = 0.18$, if the alibi corroborator looked like the judge ($M = 0.55$) than if he looked like the defendant, ($M = 0.37$). Implications for juror decision-making and future research are discussed.

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The Effect of Facial Resemblance on Alibi Credibility and Final Verdicts

The Sixth Amendment to the Constitution of the United States provides the legal right for

a criminal defendant to be tried by a jury of his or her peers. Jury members face the tremendous

responsibility of properly weighing the evidence against a defendant before determining a verdict

and/or a potential sentence. As part of these decisions, jury members must make many

preliminary judgments such as how credible witnesses are and how strongly the evidence

supports or refutes the innocence of the defendant. The right to a trial by a jury of one's peers is

presumed to ensure impartial judgments about the innocence or guilt of a defendant in a trial,

which is often regarded as a test of credibility among the two parties in play (Greene, Heilbrun,

Fortune, & Nietzel, 2007).

Extralegal Information Affecting Juror Decision-Making

In court settings where juror deliberation exists, jurors are given clear instructions to

consider only the evidence provided at the trial itself. However, many other extralegal variables

have been shown to affect the decision-making process of jurors (Greene et al., 2007). Variables

affecting such judgments range from internal cognitive processes to an array of external factors

as subjective as the appearance of a defendant (Devine, Clayton, Dunford, Seying, & Pryce,

2001; Greene & Ellis, 2008; Greene et al., 2007; Lindsay, Lim, Marando, & Cully, 1986). Some

decision-making theories used to make judgments in complex situations, and factors such as

social categorization may be basic aspects of how jurors reach verdicts. Jurors may engage in

such judgments as assessing the credibility of a witness, which in turn affects the judgment of

guilt or innocence of a defendant. In general, cognitive research regarding problem solving

suggests that in order to reach an effective decision, people process information in three steps.

The first step being that people seek or perceive the data provided by the environment, the next

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one is that people use relevant knowledge, instances or memories stored in their long-term memories, and the final step assumes that people use such stored knowledge to make inferences about whether they have enough data or require more information to reach an effective solution to the problem (Feltovich, Prietula, & Ericsson, 2006). These three steps may be a good summary of how people reach decisions, but can these three steps be reliable in reaching fair verdicts in a trial or are there pitfalls to which jurors can fall prey?

The first step suggests that people seek or perceive the data that are available in the environment. Because it applies to jury legal systems researchers have been eager to discover the foundations of judgment and decision-making. In a trial by jury, it is assumed that jurors perceive all the evidence and testimony provided by witnesses and attorneys for both the prosecution and the defense, however, it is unfeasible to know what other factors jurors may be taking into account.

Studies have found that the ethnicity of a defendant can increase the severity of a sentence when the jury's ethnic composition differs from that of the defendant (Daudistel, Hosch, Holmes, & Graves, 1999). This study suggested that conviction rates might be affected by the ethnicity of a defendant, and that the severity of the sentence can potentially be affected by this variable as well, because results demonstrated that Anglo American defendants received higher sentences when being judged by a majority of Hispanic jurors (e.g. Daudistel et al., 1999). Besides ethnicity, other links between verdicts or sentences and juror characteristics have also been empirically researched. Some of the juror characteristics that have been shown to affect verdicts are socioeconomic status, gender, personality, and previous juror experience (Devine et al., 2001). All these factors seem to be dependent upon the overall features of a trial, such as the alleged crime(s) the defendant is being tried for, the witnesses that testify, other evidence

provided, and the ethnic and gender composition of the jury interacting with the defendant's own ethnicity and gender. All of these variables seem to play part in deciding the final verdict (Devine et al., 2007; Greene et al., 2007).

Because there are numerous sources affecting the way jurors come to a final consensus, the importance of juror decision-making studies is heightened (Steblay, Hosch, Culhane, & McWethy, 2006). Just a glance at recent jury research demonstrates that there are many uncontrollable estimator variables that can affect the decision-making of jurors (Devine et al., 2007). Many areas of current jury research, however, require more in depth study to get a clearer picture of what mechanisms or heuristics affect final verdicts, such as the variables that affect the credibility of alibi testimony.

Alibi Research Linked to Evolutionary Theory

The United States' legal system defines an alibi as "a defense that places the defendant at the relevant time of the crime in a different place than the scene involved and so removed wherefrom as to render it impossible for one to be the guilty party" (Nolan, 1990). The study of alibis, though still young, provides useful findings about the type of cognitive processes or factors that play a role in jurors' judgments about the credibility of witnesses and defendants. For example, Culhane and Hosch (2004) found that alibi witnesses were perceived as being more credible when they did not share a familial relationship with the defendant. Evolutionary theory suggests that this lack of trust for relatives may be due to the altruistic idea that relatives are innately prone to help each other out, referred to as altruistic behavior (Burnstein, 2008). Lieberman and Linke (2007) also found a bias towards kin selection when making judgments about who to help. In this study, written scenarios in which the social categories of the victim or of the perpetrator of a moral violation were varied by categories (i.e., a family member, a

schoolmate, or a foreigner), when presented to participants. When the victim was portrayed as being kin to the participant, the participants were willing to give up their weekend to make the perpetrator pay for what he did. On the other hand, when the perpetrator was kin of the participant, the perpetrator received the lowest level of punishment as compared to when the perpetrator was a schoolmate or a foreigner (Lieberman & Like, 2007). This may be evidence of altruistic behavior in humans that may make jurors vulnerable to being biased. People are considered kin or family when they have a common ancestor, and kin ties have been linked to altruistic behavior. As a result, genetic relatedness between two people may increase their concern for one another (Burnstein, 2008). This concept is similar in explaining the effect of shared similarities as the similarity-leniency hypothesis which suggests that jurors will favor a litigant in a civil case who is demographically or socially similar to the jury (Kerr, Hymes, Anderson, & Weathers, 1995). Because kin selection, altruism theory, and the similarity-leniency hypothesis are present, these theories point to the potential chance of jurors considering the relationship shared between the defendant and the witnesses in a trial when making not only, credibility judgments, and final verdicts, but punishment as well. To confirm this, previous jury research demonstrated that biological kin, affinal, or other forms of relationships between an alibi witness and the defendant significantly affect the conviction rates of mock jurors (Chavez, Hosch, & Culhane, 2007). In Chavez et al. (2007), jurors where asked how prone they were to invent alibis for different categories of defendants, including identical sister, first-cousin, sister-in-law, cousin by marriage, co-worker, or familiar stranger. A linear relationship was found in the study, where participants calculated that as a sister or brother of the defendant, the chances they would lie for him were 74.94%. Whereas when the defendant was simply a familiar stranger, the chances that the participant would lie for them would decrease to 7.34%. This

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suggests that the closer ties to the defendant, the more chances a participant was to lie for them at a trial (Chavez et al., 2007).

Appearance Effects on Juror-Decision Making

Several other studies have also provided crucial information about other factors affecting jury verdicts. Appearance, for example, of a defendant, of a corroborating witness, of a trial judge, or anyone else that is part of the trial can also be considered as available "data" to the jurors upon which to base their decisions. A subjective factor, appearance, may cause jurors to search for previously stored relevant knowledge to make decisions of credibility or guilt. For instance, studies on appearance have focused on defendants and attorneys in a trial and how this may affect the verdict. Such research shows that the appearance of the defendant seems to play a part in making final verdict judgments (Lindsay, Lim, Marando, & Cully, 1986). Researchers have found that unattractive defendants were twice as likely as attractive defendants to be convicted (Devine, et al., 2001). On the other hand, Taylor (2006) found that juror verdicts were not significantly related to the physical attractiveness of the plaintiff's attorney.

This leaves a gap in jury research; it is unknown how the appearance or attractiveness of an alibi corroborator may affect the final verdict. Specifically, it would be intriguing to uncover the influence that the similarity in appearance of a defendant to that of his alibi corroborator would have on a juror's decisions.

Although, it is evident that appearance and attractiveness should not be a measure of a person's tendency to be honest or ethical under any circumstances, perhaps, it is simply a part of human nature to be influenced by this. It may be cognitively impossible to disregard something as salient as the facial characteristics of another human being (Burnstein, 2008). For instance, studies using morphing or pixel blending software have demonstrated that people's judgments

are indeed affected when they share facial characteristics with a photograph they are seeing (Burnstein, 2008).

According to inclusive fitness theory, all else equal, people trust each other according to the degree to which they are genetically related. Genetic relatedness is sometimes judged by the source of shared facial resemblance to the point to where those people who share more facial characteristics are considered kin; more concisely, familiarity between two faces is a cue to genetic relatedness (Burnstein, 2008). Facial familiarity as a cue for genetic relatedness may lead to altruistic behavior, or the idea that one must act more positively towards or even help those that are more closely related to you.

Social and concept categorization theory of mental representations also proposes that similarity or probabilistic view categories may be organized using a *family resemblance* principle (Medin, 1989). Hence, if a person is similar enough to the prototype of a category, then that person will be categorized as being a member of that category. More specifically, in this case, the similarity shared between a defendant and a witness or a judge may cause jurors to categorize them as being members of the same family or category. Jurors may in turn weigh the fact that the defendant and his alibi corroborator are members of the same category and use this as part of their decision-making process to reach a verdict. This is termed the *essentialist heuristic* and it proposes that people may use perceptual similarity to reach inductive conclusions (Medin, 1989). Knowing that similarity can lead to categorization judgments may not be salient enough to consider this confounding in juror decision-making. Nonetheless, jurors may perceive or conclude that this similarity classifies them as sharing a deeper connection or membership.

A study conducted during the 2004 presidential election showed that those voters who were most unsure of whom to vote for voted for the photo of the presidential candidate that had

been manipulated to look more like them. This was made possible with pixel blending software (Bailenson, Iyengar, & Yee, 2005). This suggests that when humans must make judgments about others, they will judge individuals who look more like themselves more positively. How we define ourselves is a product of social interaction; according to Festinger (1954) people compare themselves to others to shape the "self." More importantly, people explicitly compare themselves to others to see how they can better themselves (Festinger, 1954). Swann (1997) also stated that people often seek confirmation of their *self-concepts* through a comparison with others. Therefore, if people seek confirmation about the self by comparing themselves to others they will see a person that looks like them, not as a source of threat, but as a source of self-enhancement (Matthews, et al., 2003). If a juror sees a corroborator who is asserting the innocence of a defendant and that person happens to share facial features with the juror, then that juror will perceive the corroborator as a source of self-enhancement (i.e. make available self-conceptualized positive traits, such as honesty) and believe in the corroborator's story more.

Recent studies have demonstrated such self-enhancement effect. In one study, conducted in the Center for Law and Human Behavior at the University of Texas at El Paso, participants' photographs were blended with that of the corroborator. The participants were then asked to judge the credibility and attractiveness of the corroborator. Attractiveness ratings were significantly higher for those corroborators that looked more like the participant rendering judgment (Ochoa, Hosch, & Jolly, unpublished study). These results triggered the question of what influence will the facial resemblance shared between a defendant and his or her alibi corroborator have when these are being judged by jurors. It would be interesting to see what effect facial resemblance or a similarity in appearance between the defendant and his or her alibi corroborator would have on credibility ratings and final verdicts decided by jurors. For this

reason, in this study an attempt was made to understand the influence of the extra-legal variable of appearance using altruism and social categorizations theory and kin selection to understand how they collectively may affect jurors when deciding the credibility of an alibi corroborator and verdict.

Hypotheses

Because appearance is an extra-legal contributor to making decisions about others (Devine et al., 2001; Lindsay et al., 1986), this study manipulated the facial appearance of the alibi corroborator in a trial summary to resemble the defendant or the trial judge using facial morphing (pixel blending) software.

Hypothesis 1: Altruism theory and kin selection point to humans' partiality to help those that are more related to them. A stronger facial resemblance between a defendant and an alibi corroborator may cause jurors to believe that there is a kin relationship shared between the two, which can lead to untrustworthiness of the corroborator's testimony because of family ties that cause people to help one another no matter the situation (Burnstein, 2008). It was hypothesized that the stronger the resemblance between the defendant and the alibi corroborator, the less credible the witness would be judged to be. Thus, jurors would be more inclined to believe in a defendant's innocence if the alibi corroborator shared no facial resemblance with the defendant. When the defendant shared a stronger resemblance to the alibi corroborator, testimony would be judged as being less credible, and this would result in an increase of conviction rates for the defendant. Because past research has demonstrated that the closer the relationship between the defendant and his alibi corroborator, the less believable the testimony becomes, a stronger association between the corroborator and a defendant's facial appearance, would make the

corroborator appear less credible to the jurors (Culhane & Hosch, 2004; Lindsay et al., 1986; Olson & Wells, 2004).

Hypothesis 2: Secondly, it was also hypothesized that if the alibi corroborator shared facial characteristics with the judge, fewer convictions would result. This was hypothesized because of the implicit respect given to the judge during a trial. The physical characteristics of the courtroom in which the judge sits at the front in an elevated bench wearing a black robe may cause the judge to be perceived as the authority figure (Kovera, Dickinson, & Cutler, 2003). Therefore, it is presumed that having traditional respect for judges will cause the jurors to trust an alibi corroborator more if he shares a facial resemblance to the judge.

It is important to note that a phenomenon known as the cross-race effect could be a confounding factor in the current study. Many researchers have demonstrated that people are more accurate at recognizing faces of their own race versus faces that belong to other races (Meissner & Brigham, 2001). Researchers have tried to uncover the reasons why people may be better at recognizing own-race faces. Some findings have indicated that racial attitudes crossed with the level of interracial contact may account for part of this phenomenon. Studies conducted to understand the cross-race effect suggest that children living in interracial neighborhoods may be better at recognizing people from other-races as compared to children who live in segregated neighborhoods (Meissner & Brigham, 2001). Other developmental cross-race effect studies suggest that people can recognize own-race faces more accurately because face processing develops at a young age and remains constant; as humans develop they lose plasticity to be able to recognize other-race faces to a similar extent (Goodman, Sayfan, Lee, Sandhei, Walle-Olsen, Magnussen, et al., 2007). As the great majority of the participants in this study were Hispanic, they only photos of Hispanics were used as stimuli. This was a way to ensure consistent

processing of the similarities and differences among the faces participants were presented with in the study.

Method

Pre-Testing

A pilot test was conducted to optimize the design of the study. The photos used in the study as stimuli were rated for attractiveness, in order to assure that they were all equal in attractiveness ratings and so that this factor would not be confounding. They were rated by volunteers at the Center for Law and Human Behavior using a 7-point Likert-type scale: 0 corresponding to Not Attractive At All and 6 to Very Attractive. These photos were used as controls for the defendant and the alibi corroborator and were taken from the El Paso Police Department website (www.ci.el-paso.tx.us/pdimug/mugphoto). The mug shots are made public by the Chief of Police and they are accessible to the public or to anyone with an internet connection. The photo used for the trial judge was also pilot tested using this same method and it was taken from a law school website that made public the photographs of its faculty members.

Participants

Four hundred and three participants[1] were recruited from the Introductory Psychology experimental participant pool at the University of Texas at El Paso, and from other upper level Psychology and Political Science courses. Participation was completely voluntary and students either received half an hour of credit toward their experimental requirement or were awarded extra credit points by their respective professors. Sixty percent of the participants were female

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[1] After doing a comparison of conviction rates between the Hispanic subsample versus the non-Hispanic subsample, significant differences were found, such that the non-Hispanic sample on average convicted the defendant less. Two main analyses were conducted, therefore, the first one using all the participants ($N= 403$), and the second one using only the Hispanic participants ($N= 350$); the results did not differ (see Appendix H). To take advantage of the extra power provided by using the entire participant pool the main analyses reported in the results section of this study included both the Hispanic and non-Hispanic participants.

(n= 242) and 39.2% were male (n= 158), and the remainder did not provide gender information. A total of 86.8% of the participants were self-identified as Hispanics. These percentages coincide with the overall population of the University of Texas at El Paso where a majority of the students are Hispanic and female students outnumber males. A chi-square test revealed differences in mean conviction rates between Hispanic and non-Hispanic participants, $\chi^2 (1) = 4.13$, $p = 0.04$, $\Phi = 0.10$, such that Hispanics convicted the defendant 48% of the time, while non-Hispanic participants convicted the defendant only 33% (see Footnote 1).

Design

A 2 X 2 factorial design with two extra control conditions was used for the main analyses. The two independent variables were the manipulated photographs of the alibi corroborator, the defendant, or the trial judge, and the manipulated degree of facial resemblance shared between these different trial participants. The facial morphing software that was used to manipulate the photographs allowed for a degree of morph that ranged from 0% to 100%. In this study the photos were morphed 0%, 33%, and 66%. This morphing variable was trichotomized for important reasons. A consideration made was that the trichotomy used evenly divided the independent variable, in order to locate a linear effect if one existed.

Below Figure 1 represents the independent variable of the photographs used and how these were manipulated.
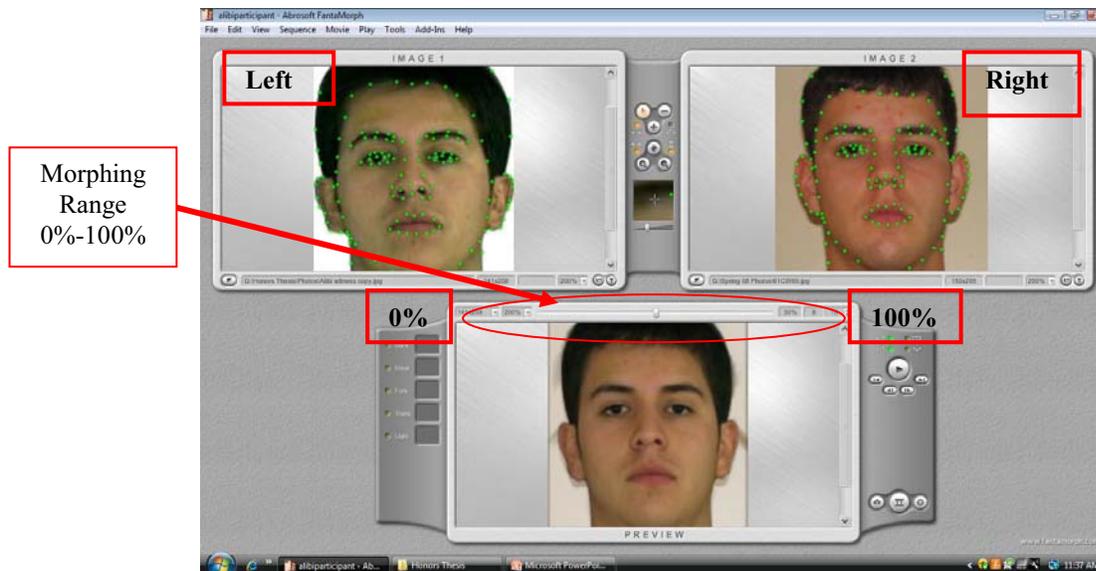
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Figure 1. Representation of the morphing software named FantaMorph and how it allows for the combination of two photographs to create a new photo.

Figure 1 demonstrates the continuum (0%-100%) in which the two manipulated photos were combined to become one new photograph. As the degree of morphing is changed from 0% to 100% the photograph in the bottom-center looks either more like the photograph on the left or like the photograph to the right. As you approach the 100% end of the continuum the morphed photo in the down-center looks more like the person to the right. While as you approach the 0% end, the photo looks more like the person in the left. To ensure the morphed photo did not look computerized all the facial features were carefully landmarked. This was made possible by placing the dots shown on Figure 1, all around the face, the neck, the ears, the hairline, the eyes, the lips, the nose, and the eyebrows. Placing the dots on all these places ensured a complete morph of the two photographs.

Participants were assigned to one of the following six conditions:

	33% Morph	66% Morph
Alibi Corroborator mixed with Defendant	1	2
Alibi Corroborator mixed with Judge	3	4

0% Morph (Control)	50% Morph (Control)
Alibi Corroborator 5	Neutral photo 6

The photographs were previously pilot tested for perceived attractiveness, in which students from the University of Texas at El Paso provided ratings for potential photos. Only the photos that were rated as being of medium attractiveness were selected as experimental stimuli to control for floor or ceiling effects on attractiveness ratings in the actual experiment. Participants in the first control condition saw the original photos selected for the alibi corroborator, defendant, and for the trial judge. Participants in the second control condition viewed a 50% morphed photo of the alibi corroborator along with photos of the judge and the defendant. The 50% morphed photo of the alibi corroborator was a combination of the photo of the alibi corroborator and a neutral photo that participants were blind to, that is they had not seen the original unmorphed neutral photo at any point in the experiment. The purpose of this control was to compare the effect of a morphed photograph versus an unmorphed photograph as in the first control condition without dealing with facial resemblance, which was the main purpose of the following experimental conditions.

If the condition required the participants to view a manipulated or morphed photo, then the photo used for the alibi corroborator was morphed, or the pixels were blended with other photos, depending on the condition, it was blended with a neutral photo (that was not shown in the experiment at all), with the mug shot used for the defendant or with the photo used to portray

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the trial judge. These stimuli were prepared using Abrosoft FantaMorph, the pixel blending software, and Photoshop, a software used to alter photographs. If a participant was randomly assigned to being in the condition in which there was a 33% morph between corroborator and defendant, the participant viewed a photo in which 33% of the defendant's photo was incorporated into the photo used for the alibi corroborator. If a participant was randomly assigned to being in the condition in which there was a 66% morph between the corroborator and defendant, the participant viewed a photo in which 66% of the defendant's photo was incorporated into the photo used for the alibi corroborator. Finally, if a participant was randomly assigned to being in the condition in which there was a 33% morph between the alibi corroborator and the trial judge, the participant viewed a photo of the alibi corroborator that only looked 33% like the judge. If a participant was randomly assigned to being in the condition in which there was a 66% morph between alibi corroborator and the trial judge, the participant viewed a photo of the alibi corroborator that looked 66% like the judge in the case. The photos of the trial judge and defendant were kept consistent in both the experimental and controlled conditions.

Procedure

The study was conducted in the Center for Law and Human Behavior and in different university classroom settings depending on the course that allowed participants to take part in the study. Each participant was asked to read and sign an informed consent document explaining the rights and responsibilities of both the experimenter and the participant. Each document stated that the subject's participation was completely voluntary and he or she could withdraw from the experiment at any point in time without fear of penalty.

After participants read the informed consent document they were allowed to continue

with the survey where all the stimulus material was presented to them. Random assignment to one of the six experimental conditions occurred at this point because each participant received a different survey corresponding to a specific condition. Each participant answered a *Voir Dire* questionnaire as though he or she was a potential juror. The *Voir Dire* questionnaire contained demographic questions for the participant. The mock jurors read a trial summary of a 1st degree felony aggravated assault that, they were told, occurred in or around El Paso, Texas. Participants were informed that the trial summary and photographs of the trial participants were provided by the District Attorney and the Center of Law and Human Behavior was asked to evaluate the case using university students. The trial summary contained background information on the case and a summary of the trial itself, including prosecution and defense arguments over the evidence and the testimony provided by witnesses. The alibi witness for the defense side was classified as a co-worker of the defendant and this was held constant throughout all six of the conditions so that it would not be confounded by any other variables.

The participant saw photos of the alibi witness, of the defendant, and of the trial judge as they were included directly into the trial summary. The photo of the alibi witness varied according to the condition to which the participant had been randomly assigned. Recall that there were six conditions in the experiment, so there were six different photographs of the alibi corroborator that participants could be randomly assigned to view, and aforementioned, the defendant's photo and that of the judge were held constant in all conditions.

Participants then completed the verdict form. The criteria that must be met for the defendant to be found guilty of the charge were listed on this sheet. The verdict form asked the juror if the defendant in the courtroom summary was guilty or not guilty of the charge brought against him. The mock jurors were asked to recommend a punishment for the defendant if they

convicted the defendant. Texas law provides that the punishment for a first degree felony is a sentence ranging from five to ninety-nine years in prison. In addition, the convicted defendant may be fined. The fine must not exceed $10,000.

Following this, the believability of the alibi was evaluated on a 7 point Likert-type scale, with 0 corresponding to 'Totally Unbelievable' and 6 corresponding to 'Totally Believable'. Each participant was asked to rate the attractiveness of each of the photos they were presented with by using a 7 point Likert type-scale: 0 corresponding to Not Attractive At All and 6 to Very Attractive. Finally, the participants were asked to evaluate their experience. Participants rated how much they enjoyed participating in this study. A 7 point Likert type-scale was used: 0 corresponding to Did Not Enjoy It At ALL and 6 to Best Activity I've ever done.

Upon completion of all of the stimulus materials, participants were given the opportunity to ask the experimenter questions regarding their participation and answers were given to their satisfaction. Copies of all the documents used in the surveys can be found in the appendix section.

To analyze the data collected, a series of hierarchical loglinear analyses and analyses of variance (ANOVA) were conducted using SPSS 15.0.

Results

Conviction Rates

Overall participants convicted the defendant 45.4% of the time. Participants in the first control condition, in which the photographs were not morphed, convicted the defendant 49% of the time, and participants in the second control condition, in which the alibi witness was morphed with a neutral trial participant, convicted the defendant 55% of the time, these conviction rates were not significantly different, $\chi^2(1) = 0.33$, $p = 0.57$. Figure 2 portrays mean

verdicts rendered for each of the six conditions. An overall hierarchical loglinear analysis

comparing the six different conditions failed to reveal significant differences in conviction rates,

$\chi^2 (5) = 8.40$, $p = 0.14$. An analysis was also conducted comparing the four experimental groups

versus the two control conditions; results were not significant, $\chi^2 (1) = 1.27$, $p = 0.26$. Following

this comparison, a comparison of the means across the four different degrees of morph, (0%,

33%, 50%, and 66%) was made to assess if there were any effects due to the degree of morphing,

disregarding the relation of facial resemblance to the alibi corroborator. No main effect on

conviction rates was found as a product of morphing degree, $\chi^2 (3) = 1.71$, $p = 0.63$.

Finally, a hierarchical loglinear analysis comparing the relation of facial resemblance

between the alibi corroborator and the defendant versus the alibi corroborator and the trial judge

was conducted. This comparison revealed a significant main effect in conviction rates when the

alibi looked either like the judge or the defendant, disregarding morphing degree, $\chi^2 (1) = 6.33$, p

$= 0.01$, $\Phi = 0.14$. The main analysis directly addressing the two primary hypotheses was then

conducted. The test of simple effects revealed that this main effect was qualified by the

difference between mean guilty verdicts when the alibi corroborator looked like the defendant

($M = 0.55$) or when he looked like the judge ($M = 0.37$) only within the 66% morph condition, χ^2

$(1) = 5.00$, $p = 0.03$, $\Phi = 0.18$.

Believability Ratings

No main effects of believability ratings of the alibi corroborator were found when

comparing the two control conditions versus the experimental conditions, $F (1, 385) = 0.53$, $p =$

0.47. When comparing believability ratings only among the four experimental conditions no

significant differences were found either, $F (1, 307) = 0.01$, $p = 0.92$. A further analysis was also

conducted at the 66% morphed degree where significant differences in conviction rates were found, however, no difference in believability ratings were obtained, $F(1, 154) = 0.09$, $p = 0.76$.

Recommended Punishments

   Sentences. ANOVA was used to assess any differences in recommended punishment (e.g. length of sentence and punitive fines) as a function of experimental condition for those participants that convicted the defendant. There were no significant main effect on punishments rendered between the control and experimental conditions, $F(1, 140) = 0.91$, $p = 0.34$. An analysis of only the four experimental conditions revealed no interaction effect of punishments rendered, $F(1, 106) = 0.20$, $p = 0.66$. In addition, an simple analysis was also performed within the 66% morphed degree conditions, however, no difference in punishments recommended was found, $F(1, 49) = 0.16$, $p = 0.70$.

   Fines. ANOVA, also, did not reveal significant differences in fines rendered to the defendant between the control and experimental conditions, $F(1, 147) = 0.00$, $p = 0.95$. The analysis of fines rendered by the four experimental conditions did not reveal significant differences, $F(1, 116) = 0.41$, $p = 0.52$, either. Finally, an analysis was also conducted at the 66% morphed degree, and no difference in fines was found, $F(1, 56) = 0.12$, $p = 0.74$.

<div align="center">

Discussion

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   The goal of the study was to gain an understanding of the effects that appearance and facial resemblance posed on making judgments about a defendant and his alibi corroborator. Despite not obtaining a main effect for the experimental conditions, in which the defendant and the judge shared a facial resemblance to the alibi corroborator to different degrees, a closer look at mean conviction rates revealed a confirmation of the proposed hypothesis, as represented by Figure 2. Recall that it was presumed that as the degree of facial resemblance increased between

the defendant and the alibi corroborator it was predicted that conviction rates would increase. In the condition were the defendant and the alibi corroborator shared a 33% morph, there was a 49% conviction rate. When the degree of facial resemblance increased between these trial participants to 66%, conviction rates also increased to 55%. It was presumed, as well, that when the degree of facial resemblance between the trial judge and the alibi corroborator increased, that conviction rates would decrease. In the condition were the defendant and the trial judge shared a 33% morph, there was a 39% conviction rate. When the degree of facial resemblance increased between these trial participants to 66%, conviction rates decreased to 37%, a significant change did not occur.

The prediction of increased conviction rates when facial resemblance was shared between the defendant and the alibi corroborator was confirmed through a comparison of verdicts rendered when the judge and the alibi corroborator looked alike. This finding has an important impact on alibi research because biases towards family and out-group members have been found before. This work adds on to such research; for instance, Lieberman & Linke (2007) found a bias towards kin selection when making judgments about an offender that was varied in social category as related to the participant making the different judgments. Lower fines and sentence length were assigned to the offender that was considered kin, versus higher fines and sentence length assigned to the offender considered a foreigner (Lieberman, & Linke, 2007). Although, differences in punishment rendered among the different conditions was not found in the present study, the mock-jurors' convictions could have been biased by the degree of facial resemblance shared between the different trial participants (i.e. defendant or trial judge), such that as the corroborator looked like the defendant convictions increased and when the corroborator looked like the judge convictions decreased.

What does looking alike have to do with family or out-group members? Kin relatedness may be judged by the level of facial familiarity shared between two people, according to evolutionary theory (Burnstein, 2008). Hence, appearance and facial characteristics may be a significant contributing factor when making judgments about the credibility of alibi corroborators, as the results of this study have indicated. Burnstein (2008) suggests that facial resemblance and altruism go hand in hand, such that people are prone to help those who look more like them because of a notion of genetic relatedness or kin. Jurors in the study could have unconsciously considered the level of facial familiarity shared between the defendant and his alibi corroborator to mean that these two also were genetically related. In effect, this might have been a source to judge the defendant as being guilty. Such findings promote the idea that mock jurors consider the facial resemblance between a defendant and the alibi corroborator to be a source of deception or grounds for being less credible of the testimony provided. This is valuable information about some of the predispositions that jurors may bring into the court room.

Future Directions

Predispositions that can be brought into the courtroom that are out of the control of the experimenter or even by the court, such as demographics or variables that deal with past experiences could also be predictive of outcomes. The *Voir Dire* questionnaire provided demographic and other relevant data about participants of the study. Many of these variables, such as age, gender, religious preferences, or previous juror experience were not included in the present analyses. Future studies can focus on these variables to see how this sample differs in conviction rates or believability ratings as a function of the demographic or other data provided by such questionnaire.

One demographic variable that the current study did analyze was ethnicity. Recall, that an analysis of these data revealed a difference in conviction rates between the Hispanic participants versus the non-Hispanic participants. The non-Hispanic participants convicted the defendant less frequently, on average, than did the Hispanic participants (see Footnote 1). Such an ethnicity effect is interesting in that it may be pointing to an in-group bias towards the defendant of this trial. The "black sheep" effect may have played a role in this difference of judgment, where studies have shown that in-group members are judged more negatively for doing something wrong because it is viewed as a threat to the in-group's social identity. Because in-group members want to preserve an overall positive identity they judge in-group members they view as a threat to a positive social identity more harshly (Marques, Yzerbyt & Leyens, 1988). In this study, there was a lack of a larger non-Hispanic participant pool; because of this large discrepancy in sample size between Hispanic versus non-Hispanic participants, little can be said about the behavior of non-Hispanic participants. However, this poses an opportunity for future study that has as its main focus to understand if differences of the facial resemblance have differential effects on in-group and out-group judgments of a defendant.

Believability ratings of the alibi corroborator were thought to be a mediating mechanism between similarity in appearance and verdicts. This expectation was not supported by the data. It appears that the facial resemblance effect may not have an impact on believability or there may be a different way to approach this. Two possibilities exist, participants of this study may not have been explicitly aware of the facial resemblance among the different trial participants, in order for this manipulation to explicitly cause a change in the believability of the corroborator. Secondly, it is still unknown, whether the facial resemblance effect is an implicit one or an explicit one, where it can actually cause a shift in a participant's credibility concept of the

corroborator if he looks more like the judge or the defendant. A study can be conducted that focuses on exactly at what point or what degree of resemblance is necessary for the facial resemblance effect to become an explicit one versus staying in the implicit or non-conscious level of cognition. From previous studies and the current one, only guesses can be made regarding this. The morphing continuum from 0-100% may have three different cognition thresholds. From 0-33% it is would be expected that the facial resemblance effect would not be noticeable enough to cause a change in believability, while from 40-60% the effect may be non-conscious or implicit. After 60% threshold is reached, when facial resemblance is very noticeable, the effect in believability can become an explicit or conscious one. This prediction should be studied parametrically to see if this is the case.

Another important aspect of this study is that the believability of the judge and of the defendant and his alibi corroborator were assumed to begin at opposite ends of a continuum of believability. The judge, because of his role in a trial, is given high initial credibility. On the other hand, despite the constitutional presumption of innocence, the defendant and his defense attorney are there to prove his innocence of the crime of which he is accused. This interaction of role in a trial may predispose jurors to strongly believe a judge and to be more distrustful of a defendant's testimony or any testimony provided by anyone on the defense side, such as the one provided by an alibi corroborator. In this study then, the believability of the judge was presumed to be high and the one of the alibi corroborator to be low, in the future this assumption can be confirmed with the collection of empirical data.

Alibi corroborators are of major importance in a trial case and findings of the present study indicate that strong facial resemblance between one and the defendant may be accountable

for higher conviction rates. It is crucial, therefore, that more studies be conducted focusing on alibis to attempt to improve the effectiveness of the legal system.

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Figure Captions

Figure 1. Representation of the morphing software named FantaMorph and how it allows for the combination of two photographs to create a new photo.

Figure 2. Mean verdicts rendered as a function of percentage morphed and whose appearance was morphed.

Figure 2

Bar chart titled "Figure 2" showing Mean Guilty Verdict Rendered on the y-axis (0 to 0.6) versus Percentage Morphed on the x-axis.

- 0% Morph (No Morph): 0.49
- 50% Morph (Neutral Photo): 0.55
- 33 % Morph (Defendant): 0.49; (Judge): 0.39
- 66% Moprh (Defendant): 0.55; (Judge): 0.37

Legend: No Morph, Neutral Photo, Defendant, Judge
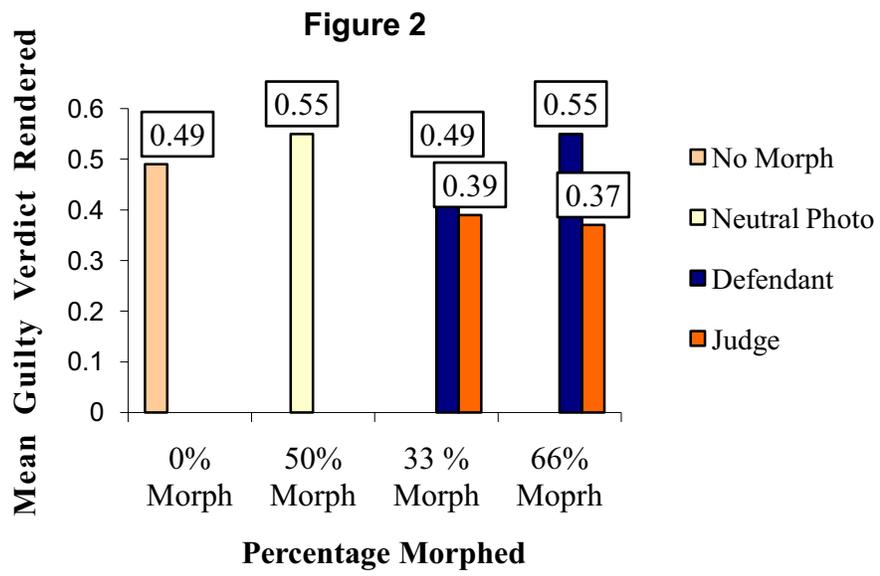
Appendix A

Please provide the following information about yourself:

      Age: _____

      Gender (circle one):   male   female

      Ethnicity (circle one):   Anglo/White/Caucasian American

                                    Asian American/Pacific Islander

                                    Black/ African American

                                    Hispanic/ Mexican American

                                    Native American

                                    Other: _____

Both males and females recognize differences in physical attractiveness among people. You will be shown photographs of individuals and asked to make judgments about each person in relation to the 8 questions listed below. You will be asked to rate the individuals on a scale from 1 (Not) to 9 (Very) for each question.

Imagine you were to meet this person in a busy airport terminal. How difficult would it be to pick this person out of a crowd?

Is this person attractive looking?

How dangerous does this person look?

Would this face be easy to remember?

Does this person look as if he would be likable?

Does this person's face look baby-like?

Is this face confusable with someone you know?

Does this person look like a criminal?

If you come across an individual that you personally know, please indicate that on the question:
                    Do you actually know this person (circle one)   yes   no

In addition, we will ask you to provide an estimate of this person's age. If you cannot provide a specific age estimate, please provide a limited age range (i.e. 40-45 years old).

We will ask you to write the letter that corresponds with each photograph at the top of each page. If you have any questions before we begin please ask them at this time.

Person 1

Imagine you were to meet this person in a busy airport terminal. How difficult would it be to pick this person out of a crowd?

1------2------3------4------5------6------7------8------9
Not Difficult   Very Difficult

_____

Is this person attractive looking?

1------2------3------4------5------6------7------8------9
Not Attractive   Very Attractive

_____

How dangerous does this person look?

1------2------3------4------5------6------7------8------9
Not dangerous   Very dangerous

_____

Would this face be easy to remember?

1------2------3------4------5------6------7------8------9
Easy to Remember   Difficult to Remember

_____

Does this person look as if he would be likable?

1------2------3------4------5------6------7------8------9
Not Likable   Very Likable

_____

Does this person's face look baby-like?

1------2------3------4------5------6------7------8------9
Not baby-like   Very baby-like

_____

Is this face confusable with someone you know?

1------2------3------4------5------6------7------8------9
Not Confusable   Very Confusable

Do you actually know this person (circle one)   yes   no

_____

Does this person look like a criminal?

1------2------3------4------5------6------7------8------9
Not like a criminal   Very much like a criminal

_____

Please indicate how old you believe this person to be. If you can't provide a specific estimate, please provide a limited age range (i.e. 40-45 years old).

This individual appears to be _____ years old.

Person 2

Imagine you were to meet this person in a busy airport terminal. How difficult would it be to pick this person out of a crowd?

1------2------3------4------5------6------7------8------9
Not Difficult   Very Difficult

_____

Is this person attractive looking?

1------2------3------4------5------6------7------8------9
Not Attractive   Very Attractive

_____

How dangerous does this person look?

1------2------3------4------5------6------7------8------9
Not dangerous   Very dangerous

_____

Would this face be easy to remember?

1------2------3------4------5------6------7------8------9
Easy to Remember   Difficult to Remember

_____

Does this person look as if he would be likable?

1------2------3------4------5------6------7------8------9
Not Likable   Very Likable

_____

Does this person's face look baby-like?

1------2------3------4------5------6------7------8------9
Not baby-like   Very baby-like

_____

Is this face confusable with someone you know?

1------2------3------4------5------6------7------8------9
Not Confusable   Very Confusable

Do you actually know this person (circle one)   yes   no

_____

Does this person look like a criminal?

1------2------3------4------5------6------7------8------9
Not like a criminal   Very much like a criminal

_____

Please indicate how old you believe this person to be. If you can't provide a specific estimate, please provide a limited age range (i.e. 40-45 years old).

This individual appears to be _____ years old.

Person 3

Imagine you were to meet this person in a busy airport terminal. How difficult would it be to pick this person out of a crowd?

1------2------3------4------5------6------7------8------9
Not Difficult   Very Difficult

_____

Is this person attractive looking?

1------2------3------4------5------6------7------8------9
Not Attractive   Very Attractive

_____

How dangerous does this person look?

1------2------3------4------5------6------7------8------9
Not dangerous   Very dangerous

_____

Would this face be easy to remember?

1------2------3------4------5------6------7------8------9
Easy to Remember   Difficult to Remember

_____

Does this person look as if he would be likable?

1------2------3------4------5------6------7------8------9
Not Likable   Very Likable

_____

Does this person's face look baby-like?

1------2------3------4------5------6------7------8------9
Not baby-like   Very baby-like

_____

Is this face confusable with someone you know?

1------2------3------4------5------6------7------8------9
Not Confusable   Very Confusable

Do you actually know this person (circle one)   yes   no

_____

Does this person look like a criminal?

1------2------3------4------5------6------7------8------9
Not like a criminal   Very much like a criminal

_____

Please indicate how old you believe this person to be. If you can't provide a specific estimate, please provide a limited age range (i.e. 40-45 years old).

This individual appears to be _____ years old.

University of Texas at El Paso (UTEP) Institutional Review Board

Informed Consent Form for Research Involving Human Subjects

Protocol Title: Individual Differences in Juror-Decision Making

Principal Investigator: Claudia Ochoa

UTEP *Psychology Department*

Note: In this consent form, "you" always means the study subject. If you are a legally authorized representative (such as a parent or guardian), please remember that "you" refers to the study subject.

You are being asked to take part voluntarily in the research project described below. Please take your time making a decision and feel free to discuss it with your friends and family. Before agreeing to take part in this research study, it is important that you read the consent form that describes the study. Please ask the study researcher or the study staff to explain any words or information that you do not clearly understand*.

In this study you answer questions from a *voir dire questionnaire,* then you will read a courtroom summary and make decisions based off of all the evidence that is presented in the courtroom summary. You will provide information about these decisions and other questions regarding what you have read. Data will be analyzed and reported by group so that your individual responses will be confidential. Approximately 200 participants will be asked to participate in this study. You are being asked to be in the study because you are jury eligible over the age of 18*. If you decide to enroll in this study, your involvement will last about half an hour per session*. This is a one session experiment in which you will receive 0.5 credit hour of research involvement for your participation.

There is a risk of psychological discomfort to you from participating in this study. The courtroom summary contains a depiction of an individual being injured as a victim in an aggravated assault. In order to study juror's decisions, the background facts of a criminal case must be presented to the juror. The background facts of a criminal case may contain elements of violence that I may find discomforting. Please understand that while every measure has been taken to minimize depictions of violence in this research study, it would be impossible for the researchers to completely eliminate all violence in this research study. Please acknowledge that should you feel any discomfort in reading the courtroom summary, you may inform the experimenter and will be excused from participation in the experiment without losing any benefit that you might gain from having participated in the experiment. The experimenter will then debrief you as to the purpose of the study and should you desire to discuss any remaining feelings of discomfort, you will be directed to Counseling Services. The address for Counseling Services is:

Counseling Services
Union Building West Room 104
Phone Number: 915-747-5302
Fax Number: 915-747-5393
Website: www.utep.edu/counsel/
Department Email: ucc@utep.edu

There are no direct costs for participating in this study. You will be responsible for travel to and from the research site and any other incidental expenses. Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty.

If you choose to take part, you have the right to stop at any time. However, we encourage you to talk to a member of the research group so that they know why you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them.

The researcher may decide to stop your participation without your permission, if he or she thinks that being in the study may cause you harm. You may ask any questions you have now. If you have questions later, you may call Claudia Ochoa at *915-747-8032, 915-208-0960,* and/or at *cochoa3@miners.utep.edu.*

If you have questions or concerns about your participation as a research subject, please contact Lola Norton of the Institutional Review Board (IRB) at UTEP at (915-747-8841) or by email at lola@utep.edu. I have read each page of this paper about the study (or it was read to me). I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without penalty. I will get a copy of this consent form now and can get information on results of the study later if I wish.

Participant Name: _____   Date: _____

Participant Signature: _____   Time: _____

Participant or Parent/Guardian Signature: _____

Consent form explained/witnessed by: _____

Printed Name: _____   Signature: _____

Date: _____   Time: _____

Appendix C

Voir Dire Questionnaire

Age: _____   Gender: ___Male ____Female   Length of Residence in El Paso:

_____

Are you Spanish/Hispanic/Latino? Please check ONE:

> ___ Yes, Mexican, Mexican-American, Chicano

> ___ Yes, Puerto Rican

> ___ Yes, Cuban

> ___ Yes, other Spanish/Hispanic/Latino (Please specify): _____

> ___ No, not Spanish/Hispanic/Latino (Please specify): _____

Licensed Driver: ___Yes ___ No   Registered Voter: ___Yes ___No

Marital Status: ___Married   ___Never Married   ___Divorced   ___Widowed

Do you have any children? ___ Yes ___ No   If Yes, how many children do you have? _____

If Yes, how old are these children? _____

Your Occupation:_____ Employer:_____

Spouse's Occupation:_____ Employer:_____

Last public school/college you attended:_____

Grade you completed/degree received:_____

What is (was) the principal profession or vocation of your parents:

Father:_____ Mother:_____

Your religious preference (if any): _____

Have you actually served on a jury before? ___Yes ___No   If Yes, how many times? _____

> Was it: ___Civil ___Criminal ___Grand Jury

Was a verdict rendered? ___Yes ___ No

Have you ever served in a court martial (a military trial)? ___Yes___ No

The term, "Law Enforcement Officer" means any of the following or any other kind of sworn law enforcement officer: Police, Sheriff, Deputy, Constable, Highway Patrol, State Police, Prison Guard, F.B.I. Agent, Treasury Agent, Customs Agent, Postal Inspector, Immigration Agent, Border Patrolman, Drug Enforcement Agent, Military Police, Shore Patrol, Private Investigator, Security Guard, etc).

Are you now or have you ever been a law enforcement officer? ___Yes ___No

 If Yes, state what type: _____

When were you a law enforcement officer?_____

Do you have a close friend or relative who is now or ever been a law enforcement officer? ___Yes ___No

If Yes, state the nature of the relationship:_____

Type of law enforcement officer: _____

When the individual was (is) a law enforcement officer:_____

Have you ever been a victim of a crime? ___Yes___No

If Yes, state the nature of the crime: _____

When it occurred: _____

Has any close friend or relative been the victim of a crime? ___Yes ___No

If Yes, state the nature of the crime:_____

When it occurred: _____

Have you ever been a witness in a criminal case: ___Yes ___No

If Yes, who were you a witness for? ___ Plaintiff ___ Defendant

If Yes, state the nature of the crime:_____

When it occurred: _____

Have you ever been a party to a lawsuit?___Yes ___No

If Yes, were you the: ___Plaintiff___Defendant

Have you ever made a claim for personal injuries? ___Yes ___No

If Yes, briefly describe the nature of the claim: _____

TRIAL JUDGE

IN THE DISTRICT COURT OF EL PASO, TEXAS
No. 44 / 23-6601
Filed 08/23/2004

STATE OF TEXAS,

vs.

DIEGO SALZON

DEFENDANT

Background Facts and Proceedings:

On June 21st, 2004, police received an emergency dispatch regarding an attack in the parking lot of the Subway restaurant located at [undisclosed address. The call was received at 9:31 p.m. A police car and an ambulance arrived at the scene of the crime at 9:40 p.m. Paramedics found Mr. Jimenez sitting in the parking lot, bleeding from the mouth. His face was covered with cuts and bruises and his nose appeared to be broken. The victim's abdomen was covered with red welts and bruises. Paramedics confirmed to the officers that the injuries, though severe, were not life threatening and were likely caused by blunt force. The victim provided officers with an account of what happened before being transported by ambulance to a nearby medical center.

Eduardo Jimenez, an employee at the Subway restaurant, said that he left work and was walking to his car so that he could drive home. As he approached his car, a man suddenly appeared and struck him in the face three times with his fists.   The sudden attack did not allow him to clearly see his assailant. He was knocked down. While he was down, he was kicked repeatedly in the midsection. When a car came into the parking lot, the suspect fled. The victim remained on the ground until patrons of the

restaurant were alerted of the incident by an incoming customer who called 911. As his attacker fled, Mr. Jimenez was able to notice that the man was Hispanic, and was wearing a white t-shirt and jean shorts. He also had a barbed wire tattoo on his left arm. Mr. Jimenez suspected that he may have been attacked because two days ago he called the police about a robbery he had witnessed at a nearby park.

Police later encountered a man less than a mile from the crime scene matching the physical description of the suspect. Diego Salzon was wearing a white t-shirt and jean shorts. He also had a barbed wire tattoo around his left bicep. When questioned, the suspect said that he was studying at the city library. The police stopped him as he was walking home. Diego Salzon was arrested at 10:44 p.m. on June 21st, 2004. He was charged with 1st degree felony aggravated assault.

Court proceedings commenced on August 20th, 2004. The prosecution argued that Mr. Salzon's close location to the scene of the crime upon arrest, along with the fact that he matched the witness' description of his assailant so precisely, down to the barbed wire tattoo on the left arm, was sufficient evidence to convict him on charges of aggravated assault. Furthermore, the prosecution raised the possibility that the defendant's alibi corroborator may be motivated to lie to protect Mr. Salzon and that the jury should be cautious when considering his testimony.

Witnesses in the courtroom included the police officers who responded to the aggravated assault involving Mr. Jimenez. The officers indicated that Mr. Salzon was arrested less than a mile from the restaurant parking lot where the aggravated assault took place. He was arrested because he matched the description that was provided by Mr. Jimenez. In the courtroom, Mr. Jimenez indicated that he believed Mr. Salzon was his assailant.

Mr. Salzon insisted that he was innocent and that he wasn't anywhere near the restaurant when the crime occurred. He claimed he had been at the public library studying for an exam for one of his EPCC classes. He was walking home from the city library when police officers approached him as a suspect in the aggravated assault case. At the trial, the defense provided testimony from an alibi witness.

ALIBI WITNESS

The defendant's alibi witness testified that he ran into Mr. Salzon in the library on the night of June 21st. He was rushing through the library looking for a wallet that he dropped earlier that day and he needed to find it before the library closed in half an hour, so they did not speak long. He recalled that the two of them talked from 9:27 p.m. to 9:30 p.m. The alibi witness stated that he knew Mr. Salzon because he and Mr. Salzon were co-workers at a downtown El Paso business.

Mr. Jimenez stated that he did not have enemies and that the only reason why he had been assaulted was because he

had called police to report a crime he had seen several days ago at Mmmm Park. Mr. Jimenez also believed he had previously seen Mr. Salzon at that same park.

Mr. Salzon's defense attorney argued that many people who live in that area frequent the park and that this was not a reason to believe or infer that Mr. Salzon had any motive to assault Mr. Jimenez. He also stated that the clothes Mr. Salzon wore on the day of the alleged assault were coincidental and that many men in El Paso own a white t-shirt and jean shorts and have tattoos on their arms. With the co-worker's testimony in favor of his client, the defense attorney stated that the prosecution did not have enough proof to convict his client, who did not have a record containing past criminal activity. In his closing, the prosecutor reminded the jury that the victim positively identified the defendant in court as being the perpetrator and that his recollection of his attacker greatly helped the police apprehend the defendant on the night of the crime. Again, the prosecutor stressed that the alibi corroborator may have a reason to provide false testimony to protect the defendant.

**IN THE DISTRICT COURT OF EL PASO, TEXAS
THREE HUNDRED THIRTY-FOURTH JUDICIAL DISTRICT**

THE STATE OF TEXAS

V.

DIEGO SALZON

In order to find the defendant guilty of aggravate assault, it must be established beyond a reasonable doubt that he:

> (1) causing serious bodily injury to another, including the person's spouse; or
> (2) using or exhibiting a deadly weapon during the commission of the assault.

where a deadly weapon is defined as being:

> (A) a firearm or anything manifestly designed, made, or adapted for the purpose of inflicting death or serious bodily injury; or
>
> (B) anything that in the manner of its use or intended use is capable of causing death or serious bodily injury.

and that it was established that the crime was:

> (3) in retaliation against or on account of the services of another as a witness, prospective witness, informant, or person who has reported the occurrence of a crime.

**IN THE DISTRICT COURT OF EL PASO, TEXAS
THREE HUNDRED THIRTY-FOURTH JUDICIAL DISTRICT**

THE STATE OF TEXAS

V.

DIEGO SALZON

VERDICT

I find the defendant (check one): _____ guilty of aggravated assault.
                                    _____ not guilty of aggravated assault.

_____

PUNISHMENT (Complete **only if** you found the defendant GUILTY)

When a defendant is found guilty, the State of Texas requires the jury to set a
punishment within the following guidelines:

   (1) a jail term for life or any term between 5 and 99 years

        The defendant will serve a jail term of _____ years

   (2) an optional fine not to exceed $10,000

        The defendant will receive a fine of _____ dollars

Appendix F

1. Please indicate the name of the defendant **and** the crime the defendant was charged with:

    _____

2. According to the courtroom summary, this crime is a: (check one)

    ___1st Degree Felony
    ___2nd Degree Felony
    ___3rd Degree Felony
    ___State Jail Felony
    ___Class A Misdemeanor

An alibi is considered to be a claim that an individual was elsewhere when a crime occurred.

An alibi witness is a person who provides an alibi. This witness will testify that a person accused of a crime was not where the crime was committed at the time it occurred.

Physical evidence may also be entered into a courtroom trial to demonstrate that a person accused of a crime was not where the crime was committed at the time it occurred.

The penalty for perjury (lying under oath) is a fine up to $3,000 and/or up to one year confinement in jail.

3. According to the courtroom summary, did the defendant have *alibi witness* testimony to support his story?

    _____ Yes, a relative
    _____ Yes, a co-worker
    _____ Yes, a stranger
    _____ No, there was no alibi-witness

4. Based upon your review of this case, what is the likelihood that the defendant actually committed the crime with which he was charged? (Indicate your level of belief by writing a percentage from 0% to 100%) _____%

5. How confident are you that your verdict is correct? (Indicate your level of confidence by writing a percentage from 0% to 100%) _____%

Circle one number corresponding to your level of belief:

6. How truthful was the defendant's testimony in this case?

0	1	2	3	4	5	6
Totally Untruthful						Totally Truthful

7. How believable was the defendant's testimony in this case?

0	1	2	3	4	5	6

Totally   Totally
Unbelievable   Believable

8. How believable was the defendant's alibi, *as a whole,* in the case? Please consider any physical
evidence and alibi testimony.

0	1	2	3	4	5	6

Totally   Totally
Unbelievable   Believable

9. How motivated to lie would the alibi witness be in order to protect the defendant in this case?

0	1	2	3	4	5	6

Totally   Totally
Unmotivated   Motivated

For the following questions, please consider the relationship of the alibi witness to the defendant:

10. What percentage of the time would the defendant's co-worker lie for him? (For example, 0%
indicates the co-worker would *never* lie for the defendant and 100% indicates that the alibi co-worker
would *always* lie for the defendant):   _____%

11. If you were of the co-worker of the defendant as the alibi witness in this case, what percentage of the
time would *you* lie for him (For example, 0% indicates *you*, as the co-worker, would *never* lie for the
defendant and 100% indicates that *you*, as the co-worker, would *always* lie for this defendant):
_____%

**Both males and females recognize differences in physical attractiveness among people. We would
like you to rate the relative attractiveness of the people you have seen. For the following questions,
please consider the supporting materials that were provided:**

12. How attractive is the defendant?

0	1	2	3	4	5	6

Not Attractive   Very Attractive
At All

13. How attractive is the alibi witness?

0	1	2	3	4	5	6

Not Attractive   Very Attractive
At All

14. How attractive is the trial judge?

0	1	2	3	4	5	6

Not Attractive   Very Attractive
At All

For the following question, please consider your entire experience in the study:

15. How would you rate your experience as a participant of this study?

0	1	2	3	4	5	6
Did Not Enjoy It At All						Best Activity I Have Ever Done

Appendix G

 The experiment is now complete, but we would first like you to answer a few questions before you leave.
Please write down any comments or criticisms you may have regarding this study in the space provided below:

1. Comments and/or criticisms?

2. Do you have questions about the study or the procedures used?

3. Did you find any aspects of the procedure odd, confusing or disturbing?

4. Do you think there may have been more to this experiment than meets the eye?

Appendix H

In this appendix, results of the study using only the data from the Hispanic participants are reported. The format follows that of the main study that included all participants.

Results
Hispanic Participants

A total of 350 Hispanic participants were recruited from the Introductory Psychology experimental participant pool at the University of Texas at El Paso, and from other upper level Psychology and Political Science courses. On average 62.9% of the participants were female ($n=$ 220) and 36.3% were male ($n=$ 127), and the rest did not provide gender information.

Conviction Rates

Overall participants convicted the defendant 48% of the time. Participants in the first control condition, in which the photographs were not morphed, convicted the defendant 49% of the time, and participants in the second control condition, in which the alibi witness was morphed with a neutral trial participant, convicted the defendant 60% of the time, these conviction rates were not significantly different, $\chi^2(1) = 0.85$, $p = 0.36$. Hierarchical loglinear analysis with verdict as the dependant variable, revealed no significant interaction effect of the four experimental conditions, $\chi^2(1) = 0.25$, $p = 0.62$. An analysis was also conducted comparing the four experimental groups versus the two control conditions; results were not significant, $\chi^2(1) = 1.06$, $p = 0.31$. An overall analysis comparing a six different conditions revealed a non significant differences in conviction rates, $\chi^2(5) = 10.15$, $p = 0.07$. Following this comparison, a comparison of the means across the four different degrees of morph, (0%, 33%, 50%, and 66%) was made to assess if there were any effects due to the degree of morphing, disregarding the

relation of facial resemblance to the alibi corroborator. No main effect on conviction rates was found as a product of morphing degree, $\chi^2(3) = 1.93$, $p = 0.59$.

Finally, a hierarchical loglinear analysis comparing the relation of facial resemblance between the alibi corroborator and the defendant versus the alibi corroborator and the trial judge was conducted. This comparison revealed a significant main effect in conviction rates when the alibi looked either like the judge or the defendant, disregarding morphing degree, $\chi^2(1) = 8.13$, $p = 0.00$, $\Phi = 0.17$. A test of simple effects revealed that this main effect was qualified by the difference between mean guilty verdicts when the alibi corroborator looked like the defendant ($M = 0.57$) or when he looked like the judge ($M = 0.38$) only within the 66% morph condition, $\chi^2(1) = 4.98$, $p = 0.03$, $\Phi = 0.19$.

Believability Ratings

No main effects of believability ratings of the alibi corroborator were found when comparing the two control conditions versus the experimental conditions, $F(1, 333) = 0.07$, $p = 0.79$. When comparing believability ratings only among the four experimental conditions no significant differences were found either, $F(1, 267) = 0.12$, $p = 0.73$. A further analysis was also conducted at the 66% morphed degree where significant differences conviction rates were found, however, no difference in believability ratings was confirmed, $F(1, 130) = 0.00$, $p = 0.95$.

Recommended Punishments

Sentences. ANOVA was used to assess any differences in sentencing (e.g. length of sentence and punitive fines) for those participants that convicted the defendant. There were no significant main effect on punishments rendered between the control and experimental conditions, $F(1, 130) = 0.90$, $p = 0.35$. An analysis of only the four experimental conditions revealed no interaction effect of punishments rendered, $F(1, 99) = 0.32$, $p = 0.57$. In addition,

an analysis was also performed at the 66% morphed degree, however, no difference in

punishments rendered was found, $F(1, 45) = 0.03$, $p = 0.86$.

      Fines. ANOVA, also, did not reveal significant differences in fines rendered to the

defendant between the control and experimental conditions, $F(1, 133) = 0.40$, $p = 0.53$. The

analysis of fines rendered by the four experimental conditions did not reveal significant

differences, $F(1, 107) = 0.69$, $p = 0.41$, either. Finally, an analysis was also conducted at the

66% morphed degree, and no difference in fines was found, $F(1, 51) = 0.12$, $p = 0.73$.

Curriculum Vita

Claudia Ochoa was born in Cd. Juárez, Chihuahua, Mexico on March 7, 1987. She became a citizen of the United States of America in 1996. The second daughter of Rogelio and Ofelia Ochoa, she graduated valedictorian from Fabens High School at Fabens, Texas on May 2005. She entered The University of Texas at El Paso (UTEP) the summer of 2005 with the College Assistance Migrant Program and was awarded a Presidential Excellence Scholarship. She completed her Honors Thesis on mock juror decision-making at the Center for Law and Human Behavior and graduated Summa Cum Laude with a bachelor's degree in Psychology in the spring of 2008. She presented her Honors Thesis at the Annual American Psychological Conference in August 2008 held in Boston, Massachusetts. In the summer of 2008, she began graduate school in the pursuit of a Master of Arts in Experimental Psychology at UTEP. While doing this, she also presented her Honors Thesis at the Board of Regents meeting held at UTEP on November 2008. On March 2009, she was part of a symposium on alibi research at the American Psychology and Law Conference held in San Antonio, Texas. She was also a guest speaker at a symposium on international psychological research at the Interamerican Society of Psychology Conference held in Guatemala City, Guatemala on the summer of 2009. At the time, she also worked at the Center for Institutional Evaluation, Research and Planning as part of the survey team. She will continue her education at the University of Minnesota Law School in the fall of 2009.

     Permanent Address: 1031 Fargrove / P.O. Box 384098

                                        Fabens, Texas 79838