

# The Criminal Face Effect: Physical Attractiveness and Character Integrity as Determinants of Perceived Criminality

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## ABSTRACT

A study was conducted which aimed to determine whether varying attractiveness and character integrity significantly affected the severity of the crime which participants associated with defendant portraits. Participants were shown attractive and unattractive portraits that were paired with a positive, negative or no-character statement. It was predicated that both variables would have effects on the severity of the associated crime. It was hypothesised that they would also interact; the effect of the character reference would be, in part, dependent on the attractiveness. A 2x3 factorial ANOVA was performed and, as predicted, showed main effects of attractiveness and character on crime rating. However, the interaction was not significant and some of the results were inconsistent. It was concluded that attractiveness and character do independently and significantly affect perceived criminality, but that further study was required in a more ecologically valid context to confirm the findings.

**KEYWORDS:** Attractiveness, character, stereotype, crime, criminal, photograph.

## INTRODUCTION

The impressions of individuals with whom we come into contact are often formed based on our previous experiences. Sets of interrelated thoughts and attitudes – schemas – are associated with salient traits observed in individuals belonging to social groups. For example, when we encounter an individual who belongs to a particular profession, we construct attitudes and feelings about this person based on factors such as how they look and how they behave towards us. These thoughts and attitudes combine to form a schema of the employees of that profession. When we encounter another employee of the profession, we utilise the experience from the existing schema to interpret their behaviour. In such a case, we are said to have formed a stereotype.

Using schema-driven perception to understand the world is cognitively economical and intuitive; to assess everyone whom we meet individually exclusively on individual merits regardless of past experience would be time consuming, and often, we need to make judgments quickly. However, using schemas and experience has obvious flaws (Rumelhart and Ortony, 1977). In applying our previous schemas, we often ignore individuating characteristics and make erroneous predictions about how people will or have behaved. It can also bias how we interpret other central traits not included within the schema.

Thus, if we utilise a positive stereotype, it can cause us to pay less attention to negative character traits, and this is termed a 'halo' effect (Kelly, 1950). For example, if we come into contact with an individual whom we perceive to be socially and physically attractive, we may interpret all of their behaviour positively, while also inferring other

characteristics about the individual from the previously constructed schema – for example that they are also friendly and likeable – while ignoring individuating characteristics not included in the schema, such as that they are actually also dishonest and untrustworthy.

A prominent example, and the area investigated in the present study, is how popular representations of criminals have contributed to the formation of a 'criminal stereotype'. As a result of such stereotypes, studies have shown that when asked to rate a defendant's guilt, participants will often be influenced by stereotyped 'extra-legal' information rather than basing decisions solely on the evidence provided (McDonald and Zebowitz, 1991). For example, the criminal stereotype has often been associated with lessened 'social attractiveness'. One study found lower levels of guilt attributed to defendants with an RP or received pronunciation-type accent compared to a Birmingham accent, and concluded that the latter was perceived as being less socially attractive (Dixon and Mahoney, 2003). Another factor that has been shown to influence perceptions of social attractiveness and integrity is the defendant's profession; thus, doctors have often been rated as very socially attractive (McDonald and Zebowitz, 1991).

Physical attractiveness has also been studied in relation to the criminal stereotype. In their frequently cited statement, 'what is beautiful is good', Dion, Berscheid and Walster (1972) claim that a stereotype exists whereby physically attractive individuals are thought to possess a variety of positive traits. In keeping with this, studies have shown that attractive defendants are often perceived as less guilty of crimes for which they have been accused, in comparison to physically unattractive defendants. For example, a study by Efran (1974) involved a controlled laboratory-simulated jury procedure in which participants were given case summaries, shown photographs of either physically attractive or unattractive defendants and then asked to rate the defendants' guilt based on this information. Efran found that physically attractive defendants were rated with less certainty of guilt and with less severe punishment recommendation. Furthermore, such findings have been repeated in other laboratory studies (Leventhal and Krate, 1977), and in field studies (Stewart, 1980, 1985). The previous results have been attributed to the 'criminal face effect' which states that stereotypes of non-criminal faces and physical attractiveness often cause cognitive biasing and halo effects on decisions (Macrae and Shepherd, 1989).

However, there appears to be some contradictory data, and other studies have found little or no significant effect of physical attractiveness on judgments. For example, Dumas and Benoit Teste (2006) presented participants with case studies and asked them to select a photograph of a defendant whom they felt best 'fitted' the crime, and found a significant correlation between certain photographs and certain crimes. They then presented case descriptions of the crimes along with the correlating photograph, and asked another set of participants to rate the guilt of the defendant for that particular crime. They found that certain defendants tended to be found more guilty for certain crimes. Their research appeared to suggest that certain faces are more associated with, and thought to be more likely to be guilty of, certain crimes. However, unlike the previously outlined research on attractiveness, they did not find any correlation between the physical attractiveness of the photographs assigned to each crime and thus concluded that it was not necessarily the attractiveness of the faces that caused an association with a particular crime. Another study by Zebowitz and McDonald (1991) found that defendants' physical attractiveness did not have an effect on guilt judgments.

Therefore, one aim of the present study was to re-examine the 'criminal face effect', and to determine whether physical attractiveness does indeed affect judgments of criminality. Furthermore, we sought to use a different method to test the effect. The studies outlined above have generally measured participant attributions of guilt to individual faces, for particular crimes. Thus, participants are presented with a physically attractive or unattractive defendant photograph and often then given a case summary. Participants are then required to rate the guilt of this defendant for this particular crime. We concluded that an alternative and improved method would be to present either a physically attractive or an unattractive portrait and ask participants to select from a list which crime they believed the defendant most likely committed. We would then assign a 'crime seriousness' rating to each crime, and then determine whether attractive individuals were associated with more or less serious crimes. We believed that providing a list of crimes was more suitable as it did not restrict the participant's choices.

Another aim of the present study was to vary 'social attractiveness' to determine how this influenced the criminal face effect. In keeping with the criminal context, our study used character references to manipulate perceived social attractiveness, and participants were informed that the character reference included factors such as integrity, profession and standing within the community. To the best of our knowledge, social attractiveness has not been included as an independent variable of any studies in this area. We were mainly interested in how this variable combined with the physical attractiveness effect. Whether traits and stereotypes interact is an important issue, and, when forming impressions, juries frequently perceive or receive additional traits in addition to physical attractiveness. For example, a jury may be presented with a physically unattractive male defendant, yet may be informed through the process of questioning, that he is also a charity worker, respected in the community, and that he holds a professional job. In such a circumstance, how might we interpret these seemingly contradicting factors? A variation of this method was implemented by Yarmey (1993) who asked participants to match portraits with crimes, whilst asking other participants to match the same portraits with a profession. A significant correlation between certain crimes and professions was found. For example, it was found that many of the more serious crimes and less respectable professions were often attributed to the physically unattractive photos. However, this study did not *control* for physical or social attractiveness and did not measure the severity of the crime with which the faces were associated; it concluded only that there was an apparent link between the variables. In summary, the aim of the present study was to investigate the role of physical and social attractiveness in judgments of criminality. Furthermore, another aim was to investigate how these two variables may combine in judgments of criminality.

The prediction was that physical attractiveness and social attractiveness would have main effects on the seriousness of the crime association. Therefore, both higher social attractiveness and higher physical attractiveness would elicit overall less serious crime associations and therefore decreased perceived criminality. It was also predicted that the effects would interact; specifically, that the effect of social attractiveness would depend on the level of physical attractiveness. It was predicted that the results would follow the expected pattern for the unattractive condition, that the negative character reference would increase the severity of the crime rating and the positive character reference would decrease it. However, the high physical attractiveness condition was predicted to differ; specifically, that the positive character reference would decrease the crime severity, but that the negative character reference condition would have a significantly less effect on crime ratings in comparison to the unattractive condition.

Thus, that negative information would have less of a harmful effect with attractive portraits than unattractive portraits. It was theorised that the inconsistent information in the attractive condition was likely to hold less weight as the effect of physical attractiveness may override the character variable, and in assuming 'what is beautiful is good', participants may somewhat ignore the negative character reference. We believed that the negative character information would be inconsistent with the 'physically attractive' schema, and, based on the 'halo effect' theory, that participants would give less weight to the inconsistent and contradictory negative social information.

## **METHOD**

### ***Participants***

There were 18 opportunistically sampled participants involved in the main experiment, and 20 separately sampled participants in the pilot study. The participants involved were first-year undergraduate students, aged approximately 18-20, and the average age of participants was 19.

### ***Design***

The experiment used a repeated measures design and every participant was presented with the same 18 photographs with the same independent variables. There were two main independent variables: the physical attractiveness (attractive and unattractive) and the character statement or social attractiveness (positive, negative and control). Furthermore, the dependent variable was the severity of the crime with which participants associated each portrait.

## **PROCEDURE**

### ***Pilot Study***

The photographs for use in the main study were selected in a preliminary study in which 20 participants rated the physical attractiveness of 40 portraits of white males, aged between 20 and 29 with neutral expressions, obtained from an online portrait database (Minear and Park, 2004). The images were colour, and were printed on A4 paper. It was decided to control for the age, race and expression of the photographs as these variables have in the past had an effect on criminality ratings.

The attractiveness ratings ranged from one to ten and the scores were totalled for each photograph, and the nine highest and lowest mean ratings were selected as the 'attractive' and 'unattractive' group respectively.

In the second part of the preliminary study, participants rated the severity of ten crimes, ranging from one to ten. The mean of each crime was calculated and the crimes ranked according to severity from one to ten, where one was the least severe: Speeding (1.54), Stolen Goods (2.1), Embezzlement (3.9), Robbery (4.3), Drug Dealing (4.5), Firearms (5.7), Grievous Bodily Harm (6.1), Indecent Assault (7.5) Rape (8.8) and Murder (9.9).

The crimes were randomly ordered on the main experimental questionnaire, and the mean severity scores used to determine the severity of the crime selected.

### **Main Experiment**

Participants were presented with a questionnaire that contained 18 physically attractive or unattractive portraits. A character statement was also presented with each portrait in the form of a label as either positive or negative. It was decided for practical reasons that each photograph should only have a label of positive or negative as full character references may have suggested at the type of crime the person had committed; for example, if we had stated that the individual was a known alcoholic, the participants may have been drawn to select grievous bodily harm. This would have represented a confounding variable. Instead, participants were informed in the brief of the main experiment that the portraits were of recently arrested criminals, and that local people had been asked to provide a character statement regarding the defendant. Participants were told that the information included details such as their standing within the community, their professions and their integrity, and that the information had been coded into either being 'positive' or 'negative'. They were also informed that not all defendants had a character statement, and this was the control group.

A list of crimes was also presented in random order. Based on the portrait and the character, participants were asked to select the crime that they thought the defendant had committed from a list of ten. The design was also counterbalanced so that across 3 different questionnaires, all of the photographs were presented with either one of the three character statement conditions.

## **RESULTS**

<b>Character</b>	<b>Attractiveness</b>	<b>Mean</b>	<b>Standard Deviation</b>
Positive	Unattractive	6.93	1.75
	Attractive	5.18	2.37
	Total	6.06	2.25
Negative	Unattractive	7.45	1.67
	Attractive	6.21	2.14
	Total	6.82	2.01
Control	Unattractive	7.10	1.60
	Attractive	5.13	2.44
	Total	6.14	2.28

Table 1 - Mean crime severity rating for the variables of physical attractiveness and character statement.

The initial hypothesis was that there would be a main effect of attractiveness and character, and an interaction between them. The data were first analysed using a 2 (physical attractiveness: unattractive vs. attractive) x 3 (character: positive vs. negative vs. control) factorial analysis of variance. An alpha level of .05 was used for all statistical tests. The overall mean for the attractive group was lower than the unattractive group, and this difference was significant and yielded an  $F$  ratio of  $F(1,318) = 34.50, p < .001$ . Therefore, when presented with physically attractive portraits, participants were significantly more likely to choose a less severe crime than when presented with an unattractive portrait.

Furthermore, there was also a main effect of character. The overall mean for the negative character was higher than the positive character and this effect was also significant, but to a lesser degree and yielded an  $F$  ratio of  $F(2,318) = 3.51, p = .031$ .

Thus, participants were significantly more likely to choose a more severe crime when presented with a negative character reference than with a positive character reference. However, the predicted interaction was not significant and yielded an  $F$  value of  $F(2, 318) = 0.238, p = .78$ . A feature of the data that was not included in our predictions was that in the unattractive condition, the mean difference between the control and the negative character statement ( $M = -.45$ ) was higher than the difference between the control and the positive character statement ( $M = .18$ ).

## DISCUSSION

The results confirm, in part, the initial hypothesis. Thus, the significant main effect of attractiveness confirms the hypothesis of the 'criminal face effect', and that attractive portraits would be associated with less serious crimes than unattractive portraits. Further, the main effect of character confirms the hypothesis that varying 'social attractiveness' would affect the crime rating.

However, the lack of interaction between the two variables indicated that attractive portraits did not elicit a 'carry-over' halo effect onto the negative character reference. Therefore, rather than the negative character having less of an effect and being somewhat ignored when compared to the unattractive group, the negative character had a similar effect in both conditions. A possible reason for this is provided by a theory of impression formation known as Cognitive Algebra (Anderson, 1965). Part of this theory proposes that impressions are formed by summation; that is, we sum the valence of all constituent person attributes. With regard to the present study, it appeared as though participants summated the valence of attractiveness and character, and decided on a crime based on both variables. Thus, when an attractive portrait, which elicited a highly positive valence of +5, for example, was combined with a negative character reference which elicited a highly negative valence of -4, the overall impression was +1; this value would then be cognitively converted into a crime rating. The implication was that, although attractiveness *does* decrease the perceived criminality of the defendant, a negative character can still also increase it. This therefore suggests we are not completely blinded by physical attractiveness and that it does not completely override the judgment process.

It was also not predicted that the negative character condition would have a much greater effect on the crime rating overall than the positive character condition, when

compared to the control condition (see Table 1). An examination of the results shows that the effect of the negative character statement is far larger than the positive character statement. Why might participants be more influenced by negative information? A potential explanation could be the negativity or horns effect (Vonk, 1993) which suggests that when we encounter negative information about an individual, in this case that he or she is a criminal, further negative information becomes salient over positive information and thus has more of an effect on crime ratings. With reference to cognitive algebra, the participants may have 'contextually weighted' the valence of attributes, and, therefore, certain traits were weighed more heavily due to the context of making an impression of a criminal. Thus, what was originally -4 for the negative character reference and +4 valence for the positive character references, was actually perhaps -10 and +4. Negative character references were ultimately more congruent with the general criminal schema than positive information, and, therefore, negative information was weighted more heavily in participant's decisions.

There are significant implications of the findings overall. Firstly, the significant main effect of attractiveness confirms the findings of many previous studies (Stewart, 1980, 1985; Efran, 1974) that physically attractive individuals are judged more favourably in relation to criminality. Nevertheless, although many studies have found a link between attractiveness and criminality, others have not, and the present re-evaluation challenges these findings. The different methodological approach implemented by the present study may have contributed to the degree of the significant effect, and further research using this method may provide more valid results.

That there is also a main effect of character suggests that attractiveness does not completely dominate the perceptual field, and implies that extra information about individuals is not completely discounted in favour of the attractiveness halo effect. Likewise, the summation argument outlined above indicates that participants judge individual traits individually and then make criminality judgments. However, the extent to which the negative character statement had a greater effect than the positive statement is somewhat worrying; the very knowledge of arrest appears to weight negatively perceived extra-legal information.

There are some methodological limitations to this study. Firstly, the sample size is somewhat small, and it is possible that the results suffer from a lack of power. Furthermore, while the degree to which the results are significant indicates a fairly robust data set, further study with a wider sample is needed to confirm the findings. While it is clear that physical and social attractiveness affect perceptions of criminality, this study has not compared the influences of these variables when participants were presented with actual case evidence. Furthermore, if the results of the present study have implications on juridic judgments, further study using a mock jury may be useful, as it more realistically includes the effects of social influence and conformity. Finally, this study has taken attractiveness as a singular concept; there may actually be specific elements of facial appearance that constitute attractiveness, and a comparative study on this level is needed.

In conclusion, this study has demonstrated that individuals frequently judge defendants based on criminal stereotypes, and also that judgments are significantly affected by physical and social attractiveness. Moreover, the very nature of being a defendant causes negative information to become salient. Consequently, it would seem that the reliability of the entire jury-decision method comes into question.

If jury members implement schema-driven perception as frequently and as readily as this study has demonstrated, it raises the question of whether defendants truly are innocent until proven guilty, and, if not, how many miscarriages of justice have occurred and will occur due to the influence of extra-legal information?

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