Facial Symmetry Perceptions in College Students

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Abstract

There has been a significant amount of research conducted investigating facial symmetry. Much research shows support that symmetrical faces will be perceived as more attractive, friendly, and dateable. Perrett, Burt, Penton-Voak, Lee, Rowland, and Edwards (1999) made significant advancement to symmetry and attractiveness perceptions. The current study sought to replicate and extend previous work. The participants were given a demographic form followed by four pictures (2 symmetrical, 2 asymmetrical, 2 women, 2 male) utilized in prior research. Next, participants were given a twelve item questionnaire assessing perceptions of the targets in pictures. We hypothesized that individuals would report a greater likelihood to trust, date, and befriend more symmetrical faces versus the asymmetrical faces. Results revealed that there was significant support for trust in symmetrical faces. Implications of the findings will be of particular interest to plastic surgeons, marketers, and people in the fashion industry.

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Introduction

Facial symmetry is a process that occurs when people first perceive a face. This process typically occurs unknowingly in the brain. A study conducted by Perrett and colleagues (1999), found that many participants perceived the more symmetrical face to be more attractive each time. After the study concluded, the researchers asked the participants to explain to them what reasons they had for deciding if a person was more attractive or less attractive. Out of the forty-nine participants, only one mentioned how symmetrical the face was, all others commented on facial aspects that were easy to notice like the eyes, mouth, and the overall expression. The study demonstrated how determining facial symmetry is automatic and barely noticeable, yet the most symmetrical faces were always rated higher on attractiveness. Scheib, Gangestad, and Thornhill (1999) experimented with facial symmetry and a female’s perception of attractiveness among male pictures. They concluded that there is a correlation between males’ symmetrical faces and the female perceptions of males’ attractiveness in the photographs.

A study conducted by Milutinovic, Selic, and Nedeljkovic (2014), compared symmetry of average women and models. They found that the models had facial symmetry that was in proximity to the perfect ratio and the average women were more distant from the perfect ratio. The proximity to the perfect facial ratio could be a reason people
find models more attractive and desirable than most average women.

Facial symmetry affects more than attractiveness perception; it also influences how likely a person is to be bullied and how trustworthy they appear. Horwood, Waylen, Herrick, Williams, and Wolke (2005) tested bullying in children who have visual defects. They found that peers would overtly bully other children with a visual impairment, (i.e, the use of glasses). This supports that having physically different faces often lead to more bullying. Feragen, Borge, and Rumsey (2008) tested how children with the facial deformity, cleft lip and/or palate are treated by their peers. They asked both the children and their parents’ questions about bullying towards the child. They concluded that children with a facial deformity are bullied, ostracized, and that they have more difficulty making friends. It seems that, without noticing, children use facial symmetry to assess what is normal and what is abnormal. Wilson and Eckel (2004), tested how attractiveness affects trustworthiness perceptions. Participants received ten experimental lab dollars and were told to send a whole dollar amount to their counterpart, who they did not know. The only information they received before sending the money was a picture of their counterpart. The counterpart would then guess, based on a picture of the person sending the money, how much was sent. After data analyses, they concluded that more money was sent to the attractive participants. The average difference between the money sent to the attractive person as opposed to an unattractive person was thirty-four cents, reflecting that there was indeed a beauty premium of 7.2 percent.

There is evidence to suggest that facial symmetry plays an important role on how people view and treat their peers. The purpose of this study was to investigate the relationship between facial symmetry and perceptions of attractiveness, trustworthiness, and likeability. We hypothesized that individuals would report a greater likelihood to trust, date, and befriend more symmetrical faces versus the asymmetrical faces.

Method

Participants

One hundred and twenty-five undergraduate students (84 females and 41 males; average age=19, $SD=3.9$) from Angelo State University were recruited. The sample consists of 56.8% Caucasians, 12% Black/African American, 24% Latino/a or Hispanic, and 2.4 Asian/Asian American. Participants volunteered to participate in this research to fulfill a course requirement or receive extra credit for a psychology course.

Materials

Demographic Data. The participants completed a four-item questionnaire. The demographic data is a general inventory used to assess general information about the participants. Participants responded to items such as “What is your ethnicity” on a multiple selection format with an area to type other options.

Photograph Evaluations. The participants completed the 12-item questionnaire as-
sessing mate, social, and trust preferences based on the pictured target person. Participants responded to items such as “Rate the target person based on how attractive you think they are” on a Likert-type scale ranging from 1 (unattractive) to 5 (attractive), and items such as “I am interested in dating the target person” on a Likert-type scale ranging from 1 (agree) to 5 (disagree).

Procedure
The participants accessed the study through Sona Systems, which then lead them to the PsychData program. The program presented the participant with a consent form. After informed consent was collected all participants completed the demographic form followed by the 12 item questionnaire that assessed the photographs. Upon completion of the questionnaires participants were provided with a debriefing statement.

Results
A one-way MANOVA was conducted on dating items. The main effect for the experimental condition was significant, $F(4, 120) = 19.19, p < .01$. Significant univariate main effects were obtained for an ethical dilemma, $F(1, 123) = 10.43, p < .01$. Participants were significantly more likely to report that they would date the asymmetrical male ($M = 4.82, SD = .39$) as opposed to the symmetrical male ($M = 4.46, SD = .80$). There was no significant difference between dating perception of the asymmetrical female ($M = 4.34, SD = .94$) versus female symmetrical faces ($M = 4.60, SD = .74$).

A one-way MANOVA was conducted on friendship items. The main effect for the experimental condition was marginally significant, $F(4, 120) = 1.73, p < .10$. Marginally significant univariate main effects were obtained for an ethical dilemma, $F(1, 123) = 5.33, p < .10$. Participants were more likely to report that they would befriend the male asymmetrical face ($M = 3.62, SD = .85$) versus the male symmetrical face ($M = 3.22, SD = 1.0$). There was no significant difference between befriending perceptions of the female symmetrical face ($M = 3.44, SD = .95$) versus the female asymmetrical face ($M = 3.10, SD = .90$).

A one-way MANOVA was conducted on trust items. The main effect for the experimental condition was marginally significant, $F(4, 120) = 1.20, p < .10$. Marginally significant univariate main effects were obtained for an ethical dilemma, $F(1, 123) = 3.24, p < .10$. Participants were more likely to report that they would trust the male symmetrical face ($M = 2.92, SD = .44$) versus the male asymmetrical face ($M = 2.51, SD = .49$). There was no significant difference between befriending perceptions of the male asymmetrical face ($M = 3.62, SD = .85$) versus the male symmetrical face ($M = 3.22, SD = 1.0$).

Discussion
We hypothesized that individuals would report a greater likelihood to trust, date, and befriend more symmetrical faces versus the asymmetrical faces. Our hypothesis was moderately supported in the area of trust. These findings are consistent with the
former literature. The study conducted by Wilson and Eckel (2004) showed support for symmetrical faces being more trustworthy versus the asymmetrical faces.

Participants were significantly more likely to report that they would date the asymmetrical male as opposed to the symmetrical male. There was no significant difference between dating perception of the asymmetrical female versus female symmetrical faces. These findings are not supported by previous literature. It is possible that participants did not find the faces attractive. Future research would benefit by having students rate multiple faces symmetrical and asymmetrical on attractiveness and then selected the faces with the higher ratings. Overall expression of the target people may have also been a limiting factor as to why the results did not support the hypothesis, as in the study conducted by Perrett and colleagues (1999).

Participants were more likely to report that they would befriend the male asymmetrical face versus the male symmetrical face. There was no significant difference between befriending perceptions of the female symmetrical face versus the female asymmetrical face. These findings are not supported by previous literature. It is possible that students had difficulty judging the target person on friendship because the images were in black and white or it is possible that the images were cropped in a way that made it difficult to judge.

In sum, the research supported the hypothesis in the trust area. This result is consistent with prior work conducted on facial symmetry and trust perception (Wilson & Eckel 2004). We were unable to replicate other prior studies conducted on facial symmetry and attractiveness (Perrett et. al, 1999). These results pertain to everyday life because people may treat others differently based on symmetry. Implications of the findings will be of particular interest to plastic surgeons, marketers, and people in the fashion industry.

References


