The Effects of Facial Symmetry on Perceived Attractiveness and Trustworthiness

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Introduction

- Recent research suggests that symmetry is a major correlate of physical attractiveness.
- When comparing genetically identical twins, the twin with the most facial symmetry was rated as more attractive.
- The difference in the level of attractiveness between the two twins was based on the magnitude of the level of symmetry.
A study that used adult rhesus macaques found that bilateral symmetry of facial shape was what influenced attractiveness. This suggests that it is possible for other primate species to have preference for conspecific facial symmetry.

The study showed computer manipulated images of symmetrical and asymmetrical opposite sex faces and then utilized looking behavior to assess attractiveness.

There were significant preferences for symmetrical faces.

Human preferences for facial symmetry are rooted in our evolutionary history.
Another study compared natural faces to computer constructed symmetrical faces.

This was done to compare the role of left-right symmetry.

Using a Likert scale, the results found that the computer constructed faces were less attractive than natural faces.
Current study:

- Post-test only between-subjects design
- Our hypotheses were:
  - Symmetrical faces are perceived as more attractive and trustworthy than asymmetrical faces.
Method

Participants
- 48 participants participated in the study → 18 to 62 years old
- 24 - Control
- 24 - Experimental

28 - male (58.3%)  
20 - female (41.7%)  
Average age = 22.92 (SD=7.93)

Materials
- Pen or pencil and a sheet of paper per participant
Methods (Continued)

Procedure

- Control group = normal asymmetrical face
- Experimental group = left side mirrored symmetrical face

Each participant was provided a picture of one of the six models with two questions underneath:

1.) How attractive do you find the model pictured above?
2.) How likely is it that you would be friends with the model pictured above?

Questions were answered on a Likert scale from scores 0 to 3

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unattractive</td>
</tr>
<tr>
<td>1</td>
<td>Somewhat Attractive</td>
</tr>
<tr>
<td>2</td>
<td>Attractive</td>
</tr>
<tr>
<td>3</td>
<td>Very Attractive</td>
</tr>
<tr>
<td>0</td>
<td>Not Likely</td>
</tr>
<tr>
<td>1</td>
<td>Somewhat Likely</td>
</tr>
<tr>
<td>2</td>
<td>Likely</td>
</tr>
<tr>
<td>3</td>
<td>Very Likely</td>
</tr>
</tbody>
</table>
Results

- Results for question one were not significant. $P > .05$.
- Average for control was actually higher than experimental, however still non-significant.

<table>
<thead>
<tr>
<th></th>
<th>condition</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1 answers</td>
<td>0</td>
<td>24</td>
<td>2.04</td>
<td>.690</td>
<td>.141</td>
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<tr>
<td></td>
<td>1</td>
<td>24</td>
<td>1.88</td>
<td>.797</td>
<td>.163</td>
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</table>
Results cont.

- Results for question two also non-significant.
- Again, control showed a higher overall rating albeit non significant.

<table>
<thead>
<tr>
<th>condition</th>
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<th>Std. Error Mean</th>
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</thead>
<tbody>
<tr>
<td>Question 2 answers</td>
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<td>2.21</td>
<td>.721</td>
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<tr>
<td></td>
<td>1</td>
<td>24</td>
<td>1.88</td>
<td>.850</td>
</tr>
</tbody>
</table>
Results cont.

- Levine’s test was not significant for both questions.
  - Equal variances assumed.
  - Variances between conditions was about the same
- Independent samples t test for question one $p = .77$
- Independent samples t test for question two was $p = .15$
Discussion

- Findings did not support our hypotheses.
  - Symmetrical faces are seen as more attractive and trustworthy
- Majority of previous literature indicates that people do have a preference for faces that are symmetrical.
  - Twin study
  - Rhesus Macaques
- Other research
  - Natural faces compared to computer constructed faces study
Discussion cont.

- **Limitations:**
  - Number of models used
  - Not many participants
  - Could have done a pretest to assess what participants find “attractive”
  - Computer generated photos
  - Recruiting method
  - Wasn't in a lab setting
Discussion cont.

- Implications:
  - Due to the limitations, we can’t say based on this study alone that facial symmetry has no relation to attractiveness and trustworthiness.
  - Asymmetrical faces may seem more genuine or approachable.
    - Ratings for trustworthiness were higher than attractiveness.
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