PSYC 350 Final Project:

Fluctuating Asymmetry, Sexual Attitudes, and Openness

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Abstract

Prior research suggests that fluctuating asymmetry and frequency intra-sexual competitive tactics have a positive correlation. This study aims to extend previous study by measuring fluctuating asymmetry(FA), sexual attitudes and openness. It is observed that the FA and sexual attitudes have no correlation at all. However, it is observed that the correlation between openness and sexual attitudes is positive which suggests future studies can be done about this topic.

*Keywords*: Personality psychology; Fluctuating asymmetry; Sexual Attitudes; Openness

Fluctuating Asymmetry, Sexual Attitudes, and Openness

Studies have been done to find the correlation between fluctuating asymmetry and individual differences in attitudes. In this study, the question I have is the relationship between four variables: Body Asymmetry, Unrestricted Sexual Attitudes, Restricted Sexual Attitudes and Openness. Especially, the correlation between FA (Fluctuating Asymmetry) and other three variables. Also, whether these relationships differ between gender.

Similar studies have been done by Jeffry A. Simpson (1999). According to Simpson, more symmetrical men were more likely to engage in intra-sexual competitive tactics “including tactics such as planning and facilitating contact with attractive others, acquiring resources valued by most opposite-sex individuals, and derogating the status or desirability of a potential competitor in front of opposite-sex individuals.” (Simpson J. 1999). Another study done by W.M. Brown, C. Moore (2003) examines the correlation between FA (Fluctuating Asymmetry) and romantic jealousy. According to Moore, there is a positive correlation among two variables.

This study aims to replicate and extend findings of Jeffery Simpson (1999) by measuring FA, Sexual Attitudes and Openness. Openness was chosen as an additional variable among big five since I considered it most relative to sexual attitudes. For instance, people with more openness might be more open-minded about sexual behaviors. From this study we will also able to measure the correlation between Sexual Attitudes and Openness in addition to the correlation between FA and Sexual Attitudes.

In this study, undergraduate participants’ FA, sexual attitudes, and openness will be measured in order to analyze the correlation between them. Some predictions include: first, FA and Unrestricted Sexual Attitudes will have positive correlation since more asymmetry means less attractiveness thus seeking for more unrestricted attitudes (having sex without love for example). Second, FA and Restricted Attitudes will have negative correlation since less attractive people with less symmetry might seek for long term relationships.

**Method**

Twenty-one female and male (14 males and 7 females) undergraduates of University of Illinois, Urbana-Champaign participated in the study. The study included two steps: measuring participants’ symmetry and online questionnaires.

*Phase 1*. Participants were asked to wear a t-shirt or a hoodie and took the photo of backside of their upper body. Body symmetry was measured by the difference between participant’s height of their left shoulder and their right shoulder in terms of centimeter.

*Phase 2*. Participants were then asked to answer 15 questions via online. The questions were consisted of 5 Unrestricted Attitude, 5 Restricted Attitude and 5 Openness (of Big Five). There were 4 reversed keyed items in the questionnaire to make the analysis more confidential. The questions were measure in 1 to 7 scale of Strongly Disagree (1) and Strongly Agree (7).

After the data collection, the data was analyzed via Microsoft Excel. All of the participants were able to type their own identification code to protect their anonymity.

**Results**

According to Figure 1.1 and Figure 1.2 (shown below), the mean and standard deviation of body asymmetry were .59cm and .63 correspondingly. Also, the mean and standard deviation of Unrestricted Sexual Attitudes were 2.84 and 1.39 and the mean and standard of Restricted Attitudes were 5.92 and .84. Lastly, the mean and standard deviation of Openness were 4.70 and .69. Among three measurements of personality, restricted attitudes scored the highest.

**Figure 1.1** Mean of (1) Body asymmetry (2) Unrestricted Attitudes (3) Restricted Attitudes (4) Openness

Also, I analyzed the mean and standard deviation of each variable among male and among female (Also see Figure 1.1 and 1.2). Most of the variables had no difference or small difference between gender.

**Figure 1.2** Standard Devation of (1) Body asymmetry (2) Unrestricted Attitudes (3) Restricted Attitudes (4) Openness

Correlation among variables especially the correlation between body asymmetry and other three variables were small (less than -.15). The correlation between body asymmetry and restricted sexual attitudes were r = -.12. The correlation between body asymmetry and unrestricted sexual attitudes were r = -.11 and the correlation between body asymmetry and openness were r = -.15. (Refer to Figure 1.3, 1.4 and 1.5)

**Figure 1.3** Correlation Between Asymmetry and Unrestricted Attitudes

**Figure 1.4** Correlation Between Asymmetry and Restricted Attitudes

**Figure 1.5** Correlation Between Asymmetry and Openness

**Discussion**

From this study, the main question I first brought out with me was the correlation between FA and Sexual Attitudes. Along with this question, I wanted to know the relationship among four variables: FA, Unrestricted Attitudes, Restricted Attitudes and Openness.

The major findings would be that the answer to the primary question is no correlation at all. Since the correlation between FA and three variables were less than -.15. Although the prediction about FA and Restricted Attitudes were supported, the other were not.

Although the correlation between asymmetry and other variables were close to none, the measurement between sexual attitudes and openness showed some correlation (Figure 2.1 and 2.2). The correlation between Unrestricted Sexual Attitudes and Openness was r = .25 and the correlation between Restricted Attitudes and Openness was r = .17 which means that the choice of openness among big five as one of the variables were not a bad choice. It would be interesting to measure openness together with other variables when looking at sexual attitudes since these two variables have some correlation with one another. Furthermore, I think the study would have been more interesting if the questionnaires included the current status of their relationships, the longest relationship they had (in terms of years or month).

**Figure 2.1** Scatterplot of Unrestricted Attitudes and Openness

**Figure 2.2** Scatterplot of Restricted Attitudes and Openness

Some limitations of this study is that there was not enough sample size to fully appropriate outliers of with lower symmetry. It can be seen from the graph that most of the samples had symmetric body which made the results more ambiguous in inaccurate. Also, most of the participants’ ethnicity was Asian meaning that the result did not capture the average scores of United States Undergraduates nor Asian Undergraduates. The study would have been more accurate if the sample were random - include various ethnicity and races.

Moreover, the measurement of Fluctuating Asymmetry was somewhat subjective because the height of the shoulders can change according to the view; whether the person who took the photo was taller or how close the person who took the photo were. This could have been improved if all of the participants were assembled at the same time and took photos of them from the same distance and angle. Also, it would be better if other measures of asymmetry were done such as face asymmetry.

**Reference**

Simpson, J. A., Gangestad, S. W., Christensen, P. N., & Leck, K. (1999). Fluctuating asymmetry, sociosexuality, and intrasexual competitive tactics. Journal of Personality and Social Psychology, 76, 159-172.

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