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## RELATIONSHIP OF PERCEIVED FACIAL ASYMMETRY TO ATTRIBUTED PERSONALITY TRAITS

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**Abstract.** Although phrenology and physiognomy have been considered a pseudoscience, most people make consistent judgments based on faces. Though their knowledge may not be expressed in words, it involves stereotypes widespread across a given culture. **Aim:** to determine the relationships between perception of facial asymmetry and personality traits associated with stereotypical judgements. **Materials and methods:** 151 volunteers were recruited – 71% female (mean age 25.4 years, SD = 6.98) and 29% male (mean age 25.9 years, SD = 8.29). A new assessment method has been proposed: participants in addition to classifying 21 Caucasian male gray-scale facial images and their mirror images into one of three categories (symmetric, right asymmetric or left asymmetric) were asked to rate on a one to seven scale 19 polar opposite personality traits. Chi-squared test, ANOVA, independent t-tests, rank correlations were analyzed with SPSS Statistics Version 27. **Results:** Statistically significant differences were found among left asymmetry, right asymmetry, and symmetry classifications in the patterns of assessed personality traits; between the personality traits of the unaltered faces and their mirror images; faces judged as asymmetric and faces judged as symmetric; faces judged as asymmetric and symmetric by females; extreme right asymmetric faces and extreme left asymmetric faces. Significantly greater statistical differences were found for attributed personality traits of honest, calm, athletic, sociable, and distinctive. **Conclusion:** The detection that most of the socially desirable traits were found in the top five faces perceived as extremely right asymmetric rather than the top five extremely left asymmetric is most intriguing and warrants further research.

***Keywords:*** *face perception, facial asymmetry, personality trait, left asymmetric face, symmetric face, right asymmetric face, mirrored face, extreme facial asymmetry.*

There's no art to find the mind's construction in the face.

*William Shakespeare, Macbeth (1605), Act I, scene 4, line 11*

### Introduction

As noted by William Shakespeare, various psychological and behavioral characteristics are often attributed to specific features of human faces. His observation is consistent with the well-known English proverb “the face is the index of the mind,” as the face best distinguishes a person by facial expression, appearance, age, gender, gaze, and other facets of identity involved in interpersonal relations.

***The overall objective*** therefore was to determine the relationships between perception of facial asymmetry and personality traits associated with these stereotypical judgements [1, p. 29].

***The specific aims*** were to determine the relationship between the

1) magnitude and order of asymmetry to selective personality traits;

2) differences in personality traits between the responses to unaltered faces and their mirror images;

3) subjects scanning from left to right and those scanning from right to left in reading/writing language skills.

It was hypothesized that:

1) there would be a direct relationship between the magnitude of perceived facial symmetry/asymmetry and personality and other attributes;

2) laterality or right to left reading/writing language skills will be related to perception of facial asymmetry and/or attributed personality traits.

More than 140 years ago, Galton (1878) called attention to the apparent directed asymmetry of the face, followed with later chimeric demonstrations of photographs of the two left sided split faces being smaller and more reflective of mostly negative emotions then the right side of the face [2]. This relationship originates contralaterally along with the sympathetic branch of the autonomic nervous system in the right hemisphere of the brain [3].

In a representative study by McGee and Skinner (1987), photographs of the left and right side of a face joined along the mid-line with its mirror image formed by reverse printing were used. Subjects then responded to the photographs by choosing adjectives from a list of words, reflecting the emotional or cognitive status previously verified by independent judges as neutral (abrupt, articulate, astute, etc.) or emotional (affectionate, arrogant, austere, etc.) [4].

Extending these observations to the body, interest shifted to bilateral body symmetry related to physical fitness, consistent with evolutionary adjustments for survival. Similarly associated with symmetry, personality and other psychological attributes also contributed holistically to fitness. In general, there has been a shift to the emotional and cognitive spheres of the Dark Triad and Big Five personality factors [5–7].

In a related study by Holtzman, et al. (2011), facial and body asymmetry scores were reversed, standardized, and averaged to create a composite symmetry score.

In addition, a personality inventory was used to assess 203 personality variables and the Big Five. It was shown that symmetry is related to personality traits beyond chance. Socially aversive traits, such as aggression and neuroticism, are positively related to symmetry. Pro-social traits such as empathy and agreeableness are negatively correlated with symmetry.

Many of these studies relate asymmetry to facial attractiveness [8, 9], health [10, 11] or even trustworthiness [12]. In some of them, it was argued that there is not only a relationship between the perception of facial asymmetry and the attributed personality traits, but one can provide evidence that there is inferring personality traits from faces [6, 13]. Other studies say there is no relation between facial asymmetry and personality [14, 15]. Much of these discrepancies may well be attributed to inconsistency caused by defects of research design.

According to Keim (2018), 85% of the general population exhibit some degree of facial asymmetry, most of whom are deliberately treated for this anomaly [16]. For this and other reasons, the above studies play an increasingly important role in orthodontics – [17], plastic and reconstructive surgery – [18, 19], craniofacial and cranio-maxillofacial surgery – [9].

**Materials and methods**

**Participants.** Following IRB approval by the Harvard School of Dental Medicine Committee on Human Studies, Approval #M12323, and obtaining signed informed consent from subjects, 151 volunteers were recruited who were distributed as follows: 71 % female, including art (18 %), dental (20 %) and hygiene students (21 %), and undergraduates (41 %). The mean age was 25.9 years (min = 18, max = 57, SD = 8.29) for males and 25.4 years (min = 18, max = 56, SD = 6.98) for females. 31 % of participants declared ability to read right to left.

**Protocol.** Their task was to classify the presented photographs into one of three categories: symmetric (S), right asymmetric (RA) or left asymmetric (LA) and to evaluate their personality and other attributes on a seven-point scale with 19 polar opposite adjective pairs: Calm – Excitable, Adaptable – Inflexible, Outgoing – Withdrawn, Successful – Unsuccessful. Influential – Uninfluential, Honest – Dishonest, Intelligent – Unintelligent, Domineering – Submissive, Competitive – Not Competitive, Athletic – Not Athletic, Proud – Humble, Sociable – Unsociable, Masculine – Not Masculine, Feminine – Not Feminine, Likeable – Not Likeable, Bold – Timid, Attractive – Unattractive, Distinctive – Not Distinctive, Healthy – Not Healthy (the list of adjectives was taken from [1, p. 30]). They were also asked to complete demographic and laterality (handedness) surveys, language fluency questionnaire (reading and writing left-right versus right-left skills).

**Faces.** In a pilot study from an online database, Psychological Image Collection at Stirling

(PICS, http://pics.stir.ac.uk), a set of 25 Caucasian male facial images was selected. Eligibility criteria were standardized full frontal head position, clarity of the image, ease of landmark identification and neutral facial expression. Of these photographs five were selected as controls, and the images were mirror flipped. Two of the 25 images were also shown wearing swimming caps to establish the influence of hair being visible. Twenty-two subjects (12 female, 10 male) aged 22–47 were asked to identify each of the 32 faces as S, LA or RA without going back and looking at previous photographs.

Four subsets were then created, each subject to see one particular set: A (101–106, 119, 315–318, 320–322), B (107, 109–114, 301–306, 319), C (115–118, 120–122, 307, 309–314) or D (101–106, 119, 301–306, 319). All photographs beginning with the number 1 were original. Their mirror counterparts began with the number 3. Photographs 119, 120, 319 and 320 were judged unanimously to be symmetric in the pilot study and were distributed into each set of photographs. None of the sets contained a collection of face images overwhelmingly judged a particular way in a pilot study. Each set of photographs was shuffled by hand to yield a different order of faces for each subject.

**Statistical analysis**. Chi-squared test, ANOVA, independent t-tests, rank correlations were analyzed with SPSS Statistics Version 27.

## Results

The chi-squared test supported the hypothesized equivalence of perceived symmetry/asymmetry across the four face sets and equality of the proportion of faces judged as RA or LA and the proportion of individual judgments of RA or LA. Percentages of judgements for S, RA, or LA by face are presented in Table 1.

Most S, RA, LA, and total asymmetric faces are presented in Fig. 1.

ANOVA across mean responses for all participant response to perceived traits of each face revealed significant differences ($p < 0.001$) among faces, thus insuring that overall the faces provided distinctly different stimuli for relation to differences in perceived personality traits among individual faces. There were no significant differences in mean traits ratings across the four face sets. Moreover, there were no significant differences in mean traits ratings across the four face sets.

**Table 1**

**Percentages of judgments for symmetric (S), right asymmetric (RA) and left asymmetric (LA) by face**

| Face # | S | RA | LA | Total |
|---|---|---|---|---|
| 101 | 4.2 | 34.7 | 50.0 | 88.9 |
| 102 | 25.4 | 42.3 | 21.1 | 88.8 |
| 103 | 39.4 | 12.7 | 35.2 | 87.3 |
| 104 | 9.9 | 26.8 | 54.9 | 91.6 |
| 105 | 39.4 | 22.5 | 26.8 | 88.7 |
| 106 | 8.5 | 18.3 | 62.0 | 88.8 |
| 107 | 47.4 | 31.6 | 15.8 | 94.8 |
| 109 | 18.4 | 31.6 | 44.7 | 94.7 |
| 110 | 21.6 | 24.3 | 45.9 | 91.8 |
| 111 | 5.3 | 34.2 | 50.0 | 89.5 |
| 112 | 10.5 | 21.1 | 52.6 | 84.2 |
| 113 | 40.5 | 13.5 | 37.8 | 91.8 |
| 114 | 8.1 | 24.3 | 56.8 | 89.2 |
| 115 | 30.0 | 40.0 | 20.0 | 90.0 |
| 116 | 29.3 | 19.5 | 36.6 | 85.4 |
| 117 | 19.5 | 22.0 | 46.3 | 87.8 |
| 118 | 9.8 | 34.1 | 41.5 | 85.4 |
| 119 | 47.1 | 22.9 | 18.6 | 88.6 |
| 120 | 31.7 | 31.7 | 19.5 | 82.9 |
| 121 | 17.1 | 22.0 | 53.7 | 92.8 |
| 122 | 26.8 | 24.4 | 36.6 | 87.8 |
| 301 | 9.9 | 56.3 | 23.9 | 90.1 |
| 302 | 27.1 | 31.4 | 32.9 | 91.4 |
| 303 | 38.6 | 28.6 | 21.4 | 88.6 |
| 304 | 9.9 | 60.6 | 19.7 | 90.2 |
| 305 | 34.3 | 28.6 | 21.4 | 84.3 |
| 306 | 5.6 | 60.6 | 21.1 | 87.3 |
| 307 | 24.4 | 29.3 | 31.7 | 85.4 |
| 309 | 22.0 | 24.4 | 43.9 | 90.3 |
| 310 | 46.2 | 23.1 | 20.5 | 89.8 |
| 311 | 7.3 | 41.5 | 41.5 | 90.3 |
| 312 | 14.6 | 43.9 | 29.3 | 87.8 |
| 313 | 39.0 | 12.2 | 31.7 | 82.9 |
| 314 | 12.2 | 43.9 | 29.3 | 85.4 |
| 315 | 28.9 | 15.8 | 36.8 | 81.5 |
| 316 | 24.3 | 27.0 | 40.5 | 91.8 |
| 317 | 34.2 | 26.3 | 28.9 | 89.4 |
| 318 | 13.2 | 44.7 | 28.9 | 86.8 |
| 319 | 52.2 | 11.6 | 26.1 | 89.9 |
| 320 | 39.5 | 7.9 | 42.1 | 89.5 |
| 321 | 5.1 | 30.8 | 53.8 | 89.7 |
| 322 | 22.2 | 16.7 | 47.2 | 86.1 |

Based on ANOVA across all respondent groups (art students, dental students, hygiene students, and others), no pattern or consistent group differences were found in mean personality traits ratings. Although the differences among the respondent groups to individual faces are suggestive, no significant intergroup differences were found. Therefore, data from the groups were

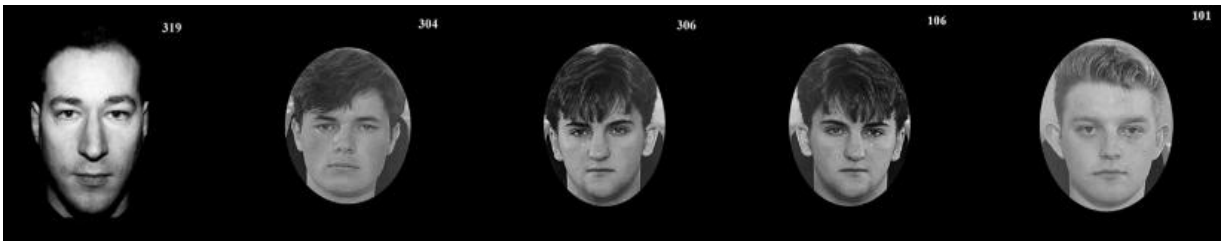


**Fig. 1. Most symmetric face #319 (S = 52.2), most right asymmetric faces #304 (RA = 60.6) and #306 (RA = 60.6), most left asymmetric face #106 (LA = 62.0), and most total asymmetric face #101 (AS = 84.7)**

combined to determine relationships of perceived face asymmetry with attributed personality traits.

Results revealed only two differences: the mirrored faces were judged as less adaptable and intelligent then their unaltered counterparts ($p < 0.05$).

The first specific aim was to determine whether faces perceived as LA or RA were seen as having different personality traits than those judged to be S. The determination of the influence of face asymmetry on attributed personality traits was approached in several ways.

ANOVAs across RA, LA, and S for each of the 19 personality traits (each face analyzed separately) showed no consistent patterns of differences in mean for traits. Bonferroni post hoc tests revealed that most of the differences were between the S and RA faces (15 significant post hocs) and the RA and LA (11 significant post hocs) with only two significant post hocs for the S versus LA groups. There were 36 significant ANOVAs across symmetry/ asymmetry judgments for the mirrored faces and 17 for unaltered faces.

Furthermore, those faces judged as RA or LA were combined into one asymmetric group (AS) for comparison with faces judged as S. Independent t-tests revealed that faces judged as AS were generally perceived to be less sociable, athletic, and proud, but more domineering than faces judged as S. When separating the above analyses by gender, independent t-tests revealed that faces judged as AS by females were more likely to be judged as significantly less calm, adaptable, healthy, proud, athletic, competitive, and domineering than faces judged as S. Faces judged as AS by males were perceived to be less calm, adaptable, intelligent, and domineering.

Two approximately equal groups representing the faces receiving the most (14 faces receiving $\geq 30$ % of the S judgments) and the least (15 faces receiving $\leq 15$ % of S judgments) proportion of S votes were compared. Independent t-tests using the total number of individual responses revealed significant differences in 14 personality traits, the exceptions being for outgoing, successful, influential, likable, and healthy. Faces judged as extremely AS were perceived as less calm, adaptable, honest, intelligent and more domineering, competitive, athletic, proud, sociable, masculine, bold, attractive and distinctive, compared to faces judged as extremely S.

A similar comparison was made between student responses to extreme RA faces (102, 107, 301, 304, 306) versus extreme LA faces (104, 112, 114, 121, 321). Extreme RA faces were perceived as more successful, influential, domineering, competitive, athletic, proud, masculine, bold, and healthy then extreme LA faces. Extreme LA faces were perceived as being more calm, adaptable, feminine, and likable then extreme RA faces.

Comparison of unaltered face images with mirrored ones showed significant negative relationships between the proportion of S and RA judgments, but only for the mirrored images ($–0.782$, $p < 0.01$) and between S and LA judgments, but only for unaltered images ($–0.824$, $p < 0.01$).

The second specific aim was to determine whether mirror images are judged the same as their unaltered counterparts with respect to their personality traits. Paired t-tests of the unaltered and mirrored image means of personality traits across all faces revealed only two differences: the mirrored faces were judged as less adaptable and intelligent then their unaltered counterparts ($p < 0.05$).

The third specific aim was to determine if laterality (handedness) or left-right versus right-left reading/writing language skills influence perception of facial S/AS and/or judgments of personality traits. 26 % of female and 42 % of male respondents declared ability to read/write from right to left with a significant gender difference supported by chi-square ($3.82$, $p = 0.057$). There were significant chi-square associations between reading direction and perceived S, RA, or LA for eight of the 42 faces (105, 114, 115, 116, 117, 121, 301,

305). For seven of these eight faces, students who reported the ability to read from right-left perceived the faces as more RA or LA than S.

Independent t-tests showed that male students with right-left language skills perceived faces as significantly less influential, masculine, feminine, attractive, and healthy then left-right readers while there were no significant differences for the female students. Males also demonstrated significant negative relationship between RA judgments and laterality scores: the more left lateralized the males were, the greater number of RA judgments (–0.435; 0.05, 2-tailed).

**Correlations among attributes.** Significant Spearman rho's among attributed 19 personality traits were found for "successful", "influential", "competitive", "athletic", "proud", "masculine", "bold", and "healthy"; they tend to be highly correlated with each other. When unaltered and mirrored faces were separated into two groups, the pattern of intercorrelations became more sophisticated. There were 23 correlations in which only the unaltered or the mirrored image was significant, not both. In 15 of these 23 cases, the mirrored image was significant.

Spearman's rho's were calculated between subjective assessments of facial asymmetry taken from Table 1 for 21 unaltered face images and 19 attributed personality traits. At the 0.05 level there was only one significant relationship: between subjective measure of facial asymmetry and trait "honest – dishonest", r = 0.50. At the 0.10 level four traits were added: "calm – excitable" (0.40), "athletic – not athletic" (–0.42), "sociable – unsociable" (–0.38), "distinctive – not distinctive" (–0.41).

Unaltered face images were ranked according to the overall value of estimates of their personality traits (mean ratings of personality traits attributed to face images are presented in Table 2 and these ranks were compared with face image asymmetry ranking. For each scale of personality traits, two sides were singled out: the left one, with scores from 1 to 3.75, and the right one, with scores from 4.25 to 7. Scores that fell in the middle of the scale – from 3.75 to 4.25 – were excluded from the analysis.

None of the 21 male face images was evaluated as 'feminine' or 'not masculine'. Sixteen out of 21 were evaluated as 'masculine' and all 21 were evaluated as 'not feminine'. Respondents identified the psychological traits femininity and masculinity with the corresponding gender – female or male.

The left sides of personality traits scales (healthy, masculine, competitive, athletic, proud, bold) were more pronounced than the right ones (not feminine, unattractive, unintelligent, uninfluential).

**Discussion**

One of the most important characteristics of a human face is its attractiveness. Surprisingly, only two face images – 122 and 104 – were evaluated as "attractive" while 16 from 21 were characterized as "unattractive".

Some face images may be characterized as left-scaled (their left scales evaluations are significantly greater than right ones). Some face images may be characterized as right-scaled (their right scales evaluations are significantly greater than left ones). Other face images may be characterized as harmonic.

The most noticeable in the overall expressiveness of psychological traits are face images 105, 122, and 113 (asymmetry ranks 18, 13, 16). The least noticeable in the overall expressiveness of psychological traits are face images 102, 101, and 119 (asymmetry ranks 12, 1, 21). Spearman's rho between personality traits ranking and face asymmetry ranking is equal to –0.18.

Symmetry/asymmetry of face images and self-reported ability to read from right to left are related to attributed personality traits. Perceived face asymmetry regardless of direction appeared to be associated with fewer positive attributions than perceived symmetry. RA faces were perceived as being more positive than LA faces for selected set of personality traits.

**Conclusion**

The detection that most of the socially desirable traits were found in the top five faces perceived as extremely RA (more successful, influential, domineering, competitive, athletic, proud, masculine, bold, and healthy) rather than the top five extremely LA refines the study Holtzman et al. (2011) mentioned above (pro-social traits are negatively related to face symmetry), is most intriguing and warrants further research [20].

We also note possible applications to orthognathic surgery, where our results concerning personality traits such as "adaptable", "intelligent", "domineering" add an understanding that should help surgeons counsel their patients in a realistic and reasonable manner [21].

Table 2

Personality traits attributed to face images

| # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | 3.97 | 3.97 | 3.80 | 3.94 | 3.96 | 4.45 | 3.99 | 3.53 | 3.33 | 3.66 | 3.54 | 3.71 | 3.24 | 5.24 | 4.04 | 3.67 | 4.35 | 3.87 | 3.19 |
| 102 | 3.81 | 4.17 | 4.13 | 3.83 | 4.10 | 3.91 | 3.62 | 3.87 | 3.57 | 3.62 | 3.84 | 3.79 | 3.19 | 5.43 | 4.07 | 3.68 | 4.26 | 3.97 | 3.31 |
| 103 | 3.53 | 3.20 | 3.71 | 3.67 | 3.97 | 3.27 | 3.31 | 4.41 | 3.99 | 3.96 | 3.84 | 3.35 | 3.81 | 4.97 | 3.35 | 4.00 | 4.33 | 4.18 | 3.14 |
| 104 | 3.99 | 3.94 | 3.71 | 3.66 | 3.72 | 4.00 | 3.80 | 3.70 | 3.23 | 3.10 | 3.06 | 3.36 | 2.84 | 5.53 | 3.40 | 3.43 | 3.49 | 3.80 | 2.79 |
| 105 | 3.30 | 4.17 | 4.85 | 4.77 | 5.00 | 3.80 | 4.41 | 4.99 | 5.30 | 5.45 | 4.65 | 4.76 | 3.82 | 4.51 | 4.25 | 4.93 | 5.23 | 4.73 | 4.00 |
| 106 | 4.87 | 4.84 | 4.31 | 4.66 | 4.35 | 4.93 | 4.49 | 3.32 | 3.15 | 3.25 | 3.03 | 4.07 | 2.78 | 5.57 | 4.46 | 3.40 | 4.82 | 3.56 | 3.84 |
| 107 | 3.08 | 3.63 | 4.66 | 3.42 | 4.16 | 3.39 | 3.05 | 4.55 | 4.13 | 4.11 | 3.74 | 4.21 | 3.55 | 5.21 | 3.87 | 4.26 | 4.26 | 4.92 | 2.95 |
| 109 | 4.00 | 3.95 | 3.66 | 3.82 | 4.11 | 3.97 | 3.71 | 4.16 | 3.50 | 3.37 | 3.21 | 3.21 | 3.58 | 5.21 | 3.79 | 3.71 | 4.05 | 3.84 | 2.74 |
| 110 | 3.57 | 3.50 | 3.65 | 4.22 | 4.35 | 3.86 | 4.38 | 4.46 | 3.78 | 4.00 | 4.11 | 3.76 | 3.32 | 5.30 | 3.57 | 4.17 | 4.70 | 3.76 | 3.08 |
| 111 | 4.79 | 4.26 | 3.50 | 3.58 | 3.71 | 4.37 | 3.55 | 3.76 | 3.37 | 4.16 | 3.45 | 3.21 | 3.11 | 5.53 | 3.71 | 3.58 | 4.11 | 3.82 | 2.82 |
| 112 | 3.61 | 4.05 | 4.82 | 4.66 | 4.95 | 4.50 | 4.42 | 4.82 | 4.50 | 4.55 | 4.53 | 4.71 | 3.89 | 5.00 | 4.24 | 4.92 | 5.32 | 4.21 | 4.13 |
| 113 | 5.30 | 5.24 | 3.84 | 4.41 | 4.14 | 5.24 | 4.76 | 2.81 | 2.54 | 3.30 | 3.03 | 4.14 | 2.35 | 6.05 | 5.08 | 2.84 | 5.00 | 3.89 | 3.65 |
| 114 | 4.32 | 4.22 | 3.54 | 4.38 | 4.49 | 4.35 | 4.46 | 3.76 | 3.22 | 3.22 | 2.95 | 3.41 | 2.78 | 5.51 | 4.22 | 3.24 | 4.89 | 3.54 | 3.41 |
| 115 | 4.15 | 3.92 | 3.56 | 4.00 | 4.10 | 4.23 | 4.28 | 3.50 | 3.23 | 2.75 | 3.26 | 3.35 | 2.48 | 6.05 | 3.60 | 3.13 | 4.25 | 4.05 | 2.95 |
| 116 | 3.63 | 3.34 | 4.05 | 3.95 | 4.27 | 3.56 | 3.66 | 4.98 | 4.34 | 4.51 | 4.00 | 3.93 | 4.10 | 5.00 | 3.61 | 4.37 | 4.83 | 4.54 | 3.39 |
| 117 | 3.57 | 3.17 | 3.60 | 4.10 | 4.29 | 3.67 | 3.71 | 4.14 | 4.19 | 3.93 | 3.98 | 3.76 | 3.40 | 5.24 | 3.90 | 4.12 | 5.69 | 4.21 | 3.40 |
| 118 | 3.93 | 4.54 | 4.49 | 4.37 | 4.20 | 4.46 | 4.29 | 3.73 | 3.10 | 3.73 | 3.10 | 4.15 | 3.10 | 5.76 | 4.51 | 4.02 | 4.60 | 4.37 | 3.44 |
| 119 | 3.71 | 3.93 | 4.42 | 4.00 | 4.10 | 4.03 | 3.59 | 3.72 | 3.81 | 4.19 | 3.77 | 4.16 | 2.94 | 5.71 | 4.29 | 3.87 | 4.96 | 3.77 | 3.65 |
| 120 | 4.83 | 4.90 | 4.22 | 4.17 | 4.32 | 4.85 | 4.39 | 2.90 | 3.00 | 3.29 | 3.24 | 4.17 | 2.29 | 6.05 | 4.54 | 3.35 | 4.95 | 4.39 | 3.56 |
| 121 | 3.71 | 3.90 | 4.44 | 4.51 | 4.83 | 3.80 | 3.90 | 4.88 | 4.61 | 4.54 | 4.29 | 4.59 | 3.83 | 5.32 | 4.15 | 5.07 | 5.07 | 4.85 | 3.90 |
| 122 | 4.25 | 3.07 | 2.34 | 3.20 | 3.20 | 4.07 | 4.63 | 3.68 | 3.44 | 3.22 | 3.49 | 2.46 | 2.71 | 5.25 | 2.73 | 2.95 | 2.68 | 2.46 | 2.46 |
| Mean | 4.00 | 4.00 | 3.97 | 4.06 | 4.21 | 4.13 | 4.02 | 3.98 | 3.68 | 3.76 | 3.62 | 3.82 | 3.20 | 5.40 | 3.97 | 3.84 | 4.56 | 4.03 | 3.32 |

Face images: #101–107, 109–122

List of traits: 1. calm – excitable, 2. adaptable – inflexible, 3. outgoing – withdrawn, 4. successful – unsuccessful, 5. influential – uninfluential, 6. honest – dishonest, 7. intelligent – unintelligent, 8. domineering – submissive, 9. competitive – not competitive 10. athletic – not athletic, 11. proud – humble, 12. sociable – unsociable, 13. masculine – not masculine, 14. feminine – not feminine 15. likeable – not likeable, 16. bold – timid, 17. attractive – unattractive, 18. distinctive – not distinctive, 19. healthy – not healthy

Last line is the average expressiveness of personality traits.

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**Declaration of conflicting interests**

The authors declared no explicit and potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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# СВЯЗЬ ВОСПРИНИМАЕМОЙ АСИММЕТРИИ ЛИЦА С ПРИПИСЫВАЕМЫМИ ЧЕРТАМИ ЛИЧНОСТИ

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**Аннотация.** Хотя френология и физиогномика считаются псевдонауками, большинство людей выносит согласованные суждения, основанные на лицах. Их знания, как правило, не могут быть выражены словами и включают стереотипы, распространенные в данной культуре. **Цель исследования**: определить взаимосвязь между восприятием асимметрии лица и личностными чертами, ассоциируемыми со стереотипными суждениями. **Организация и методы**: выборку составили 151 доброволец, 71 % – женщины (средний возраст 25,4, SD = 6,98) и 29 % – мужчины (средний возраст 25,9, SD = 8,29). Предложен новый метод оценки: участники в дополнение к классификации 21 полутоновых фотографий белых мужчин и их зеркальных изображений в одну из трех категорий (симметричная, право или лево асимметричная) оценивали по шкале от одного до семи 19 полярно противоположных черт личности. Критерий хи-квадрат, ANOVA, независимые t-тесты, ранговые корреляции были проанализированы с помощью пакета IBMSPSSStatistics версия 27. **Результаты**. Были обнаружены статистически значимые различия между левоасимметричными, правоасимметричными и симметричными лицами в паттернах оцениваемых черт личности; между личностными чертами исходных лиц и их зеркальных отражений; лицами, оцениваемыми как асимметричные, и лицами, оцениваемыми как симметричные; экстремальными правоасимметричными лицами и экстремальными левоасимметричными лицами. Наибольшие статистически значимые различия были обнаружены для черт личности честный, спокойный, спортивный, общительный и самобытный. **Заключение**. Обнаружение того, что большинство социально желательных черт ассоциируется с экстремальными правоасимметричными лицами, а не с экстремальными левоасимметричными лицами, является наиболее интригующим и требует дальнейших исследований.

***Ключевые слова:*** *восприятие лица, асимметрия лица, черта личности, левоасимметричное лицо, симметричное лицо, правоасимметричное лицо, зеркально отраженное лицо, экстремальная асимметрия лица.*

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