



Examining the “attractiveness halo effect” across cultures

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Abstract

Research has found that attractiveness has a positive “halo effect”, where people tend to attribute socially desirable personality traits to physically attractive individuals. Several studies have documented this “attractiveness halo effect”, with most research using western samples. This study sought to examine the “attractiveness halo effect” across 45 countries in 11 world regions. Data was collected through the Psychological Science Accelerator and participants were asked to rate 120 faces on one of several traits. Results showed that attractiveness correlated positively with most of the socially desirable personality traits. More specifically, across all 11 world regions, male and female faces rated as more attractive were rated as more confident, emotionally stable, intelligent, responsible, sociable, and trustworthy. These findings, thus, provide evidence that the “attractiveness halo effect” can be found cross-culturally.

Keywords Attractiveness · Halo effect · Cross-cultural · Perception · Faces

Introduction

Research has demonstrated that we are able to make judgements of people after only 100 milliseconds of exposure to their faces (Willis & Todorov, 2006). With such minimal information, participants are able to effortlessly and intuitively rate faces on a wide array of traits, such as attractiveness (Willis & Todorov, 2006). Being able to quickly perceive attractiveness may be adaptive since there is some evidence that it signals health and immunocompetence (Thornhill & Gangestad, 2006; White et al., 2013, but see Jones et al., 2021b).

Attractiveness has been said to have a positive “halo effect”, where people tend to attribute socially desirable personality traits to physically attractive individuals. Indeed, several studies have documented this effect. For example, more attractive individuals are rated as more extraverted (Albright et al., 1988) and friendlier (Dion et al., 1972).

Most of this research, however, has been conducted using western samples. Some studies have found cross-cultural agreement in judgements between western and non-western samples (e.g., Albright et al., 1997), but other research has

found cross-cultural variation (e.g., Marcinkowska et al., 2014). For instance, the relationship between attractiveness and masculinity in male faces has been found to vary depending on perceptions of violence (Borras-Guevara et al., 2017).

Therefore, this brief report aims to extend the cross-cultural work on this topic and examine the “attractiveness halo effect” across 11 world regions. It was hypothesized that attractiveness would correlate positively with the socially desirable personality traits and negatively with the socially undesirable personality traits.

Methods

Data was collected across 45 countries, divided into 11 world regions (see Table 1). The decision to not combine the UK with Western Europe was made before data collection started since the Psychological Science Accelerator (Moshontz et al., 2018) network could get a minimum number of participants in the UK (for details see Jones et al., 2021a).

The facial stimuli used consisted of the photographs of 60 men and 60 women taken under standardized conditions with neutral expressions from an open-access face image set (i.e., Ma et al., 2015). Of the 120 images, 30 were Black (15 male, 15 female), 30 White (15 male, 15 female), 30 Asian (15 male, 15 female), and 30 Latinx (15 male, 15 female). The same facial stimuli were used

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Table 1 Countries where data was collected for each world region

World region	Countries
Africa	Kenya, Nigeria, South Africa
Asia	China, India, Malaysia, Taiwan, Thailand
Australia and New Zealand	Australia, New Zealand
Central America and Mexico	El Salvador, Mexico
Eastern Europe	Hungary, Lithuania, Poland, Russia, Serbia, Slovakia
Middle East	Iran, Israel, Turkey
Scandinavia	Denmark, Finland, Norway, Sweden
South America	Argentina, Brazil, Chile, Colombia, Ecuador
United Kingdom	England, Scotland, Wales
USA and Canada	Canada, the USA
Western Europe	Austria, Belgium, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain, Switzerland

in each testing site, with the instructions provided in the language appropriate for each country.

Participants ($n = 11,570$) were randomly assigned to rate one of 13 adjectives (i.e., attractiveness, aggression, caringness, confidence, dominance, emotional stability, intelligence, meanness, responsibility, sociability, trustworthiness, unhappiness, weirdness). Each of the 120 faces was rated from 1 (not at all) to 9 (very) in a randomized order. Each participant completed the ratings twice and the ratings from the first and second blocks were averaged for all the analyses. Participants took the study in labs or online and data from those who did not rate all 120 faces in the first block, who provided the same rating for 75% or more of the faces, or who did not specify their region were excluded from the analyses (for details see Jones et al., 2021a).

Results

The code used for the initial analyses was preregistered and made publicly available: <https://osf.io/kq8dz>. Follow-up analyses during the review process were conducted using R (R Core Team, 2021) and all packages and outputs are summarized in Online Resource 1.

We first calculated the average trait score for each face. Correlations were then run between all of the measured traits (see top part of Table 2). Attractiveness correlated positively with all the socially desirable personality traits and negatively with all the socially undesirable personality traits.

We then calculated the average trait score for each face per region. The data were then split by world region and by sex of facial stimuli. Correlations were then run between attractiveness and the other measured traits (see bottom part of Table 2). For both male and female faces across all 11 world regions, individuals rated as more attractive were rated as more confident, emotionally stable, intelligent, responsible, sociable, and trustworthy as well as less weird.

Additionally, across several world regions, attractiveness correlated positively with caringness and dominance and negatively with aggression, meanness, and unhappiness. For intelligence ($z = 2.78$, $p = 0.005$) and responsibility ($z = 2.55$, $p = 0.011$) the positive correlations with attractiveness were stronger for female faces than for male faces.

Discussion

The hypothesis that attractiveness would correlate positively with the socially desirable personality traits and negatively with the socially undesirable personality traits across world regions was largely supported. These results replicate previous findings of the “attractiveness halo effect” in western samples (e.g., Dion et al., 1972; Lucker et al., 1981) and suggest that the positive effect of attractiveness can be found cross-culturally. Moreover, some of the positive correlations with attractiveness were stronger for female faces than for male faces. This finding is also in line with previous research which has found that the “attractiveness halo effect” is stronger for females (Kaplan, 1978).

That people tend to attribute socially desirable personality traits to individuals high in physical attractiveness can have real-world effects. For instance, in jury studies, it has been found that mock jurors are less likely to find physically attractive defendants guilty when compared to physically unattractive defendants (Mazzella & Feingold, 1994; Smith & Hed, 1979). If convicted, mock jurors, as well as real jurors, recommended less severe sentences for more attractive defendants (Mazzella & Feingold, 1994; Smith & Hed, 1979; Stewart, 1980). These effects could in part be explained by the findings presented here that more attractive faces are judged as more responsible and trustworthy.

This study is one of several secondary analyses (Forscher et al., 2020) that have begun to utilize large-scale cross-cultural datasets to further our understanding of person

Table 2 Correlations between all of the measured traits (top) and then correlations between attractiveness and the other measured traits divided by sex of face and world region (bottom)

	Attractive	Aggressive	Caring	Confident	Dominant	Emostable	Intelligent	Mean	Responsible	Sociable	Trustworthy	Unhappy	Weird
Attractive	1	-0.258**	0.530**	0.727**	0.597**	0.644**	0.740**	-0.234**	0.794**	0.654**	0.754**	-0.324**	-0.790**
Aggressive	-0.258**	1	-0.820**	-0.196*	0.394**	-0.601**	-0.431**	0.966**	-0.485**	-0.685**	-0.750**	0.531**	0.433**
Caring	0.530**	-0.820**	1	0.576**	0.071	0.800**	0.530**	-0.850**	0.708**	0.931**	0.895**	-0.713**	-0.589**
Confident	0.727**	-0.196*	0.576**	1	0.738**	0.854**	0.705**	-0.241**	0.765**	0.801**	0.660**	-0.756**	-0.558**
Dominant	0.597**	0.394**	0.071	0.738**	1	0.424**	0.439**	0.314**	0.544**	0.287**	0.255**	-0.203*	-0.384**
Emostable	0.644**	-0.601**	0.800**	0.854**	0.424**	1	0.788**	-0.650**	0.866**	0.905**	0.879**	-0.815**	-0.689**
Intelligent	0.740**	-0.431**	0.530**	0.705**	0.439**	0.788**	1	-0.423**	0.879**	0.635**	0.769**	-0.467**	-0.768**
Mean	-0.234**	0.966**	-0.850**	-0.241**	0.314**	-0.650**	-0.423**	1	-0.498**	-0.713**	-0.763**	0.548**	0.457**
Responsible	0.794**	-0.485**	0.708**	0.765**	0.544**	0.866**	0.879**	-0.498**	1	0.761**	0.895**	-0.541**	-0.779**
Sociable	0.654**	-0.685**	0.931**	0.801**	0.287**	0.905**	0.635**	-0.713**	0.761**	1	0.883**	-0.846**	-0.618**
Trustworthy	0.754**	-0.750**	0.895**	0.660**	0.255**	0.879**	0.769**	-0.763**	0.895**	0.883**	1	-0.605**	-0.811**
Unhappy	-0.324**	0.531**	-0.713**	-0.756**	-0.203*	-0.815**	-0.467**	0.548**	-0.541**	-0.846**	-0.605**	1	0.276**
Weird	-0.790**	0.433**	-0.589**	-0.558**	-0.384**	-0.689**	-0.768**	0.457**	-0.779**	-0.618**	-0.811**	0.276**	1
Attractiveness (male faces)													
	Africa	Asia	Australia and New Zealand	Central America and Mexico	Eastern Europe	Middle East	Scandinavia	South America	United Kingdom	USA and Canada	Western Europe		
Aggressive	-0.073	-0.333**	-0.189	-0.030	-0.286*	-0.043	-0.206	-0.036	0.119	-0.155	-0.347**		
Caring	0.420**	0.594**	0.515**	0.224	0.680**	0.214	0.551**	0.256*	0.319*	0.454**	0.604**		
Confident	0.636**	0.668**	0.751**	0.608**	0.738**	0.581**	0.745**	0.766**	0.642*	0.766**	0.805**		
Dominant	0.509**	0.562**	0.526**	0.184	0.635**	0.519**	0.622**	0.578**	0.558**	0.596**	0.554**		
Emostable	0.466**	0.584**	0.610**	0.476**	0.653**	0.403**	0.679**	0.549**	0.455**	0.588**	0.741**		
Intelligent	0.557**	0.854**	0.598**	0.442**	0.674**	0.628**	0.674**	0.486**	0.524**	0.571**	0.750**		
Mean	-0.252	-0.524**	-0.325*	-0.047	-0.386**	0.056	-0.282*	-0.191	-0.095	-0.212	-0.364**		
Responsible	0.656**	0.788**	0.636**	0.381**	0.738**	0.421**	0.651**	0.374**	0.580**	0.580**	0.769**		
Sociable	0.652**	0.596**	0.618**	0.454**	0.704**	0.304*	0.668**	0.609**	0.483**	0.656**	0.683**		
Trustworthy	0.663**	0.781**	0.685**	0.562**	0.756**	0.396**	0.723**	0.489**	0.479**	0.625**	0.764**		
Unhappy	-0.342**	-0.341**	-0.370**	-0.291*	-0.402**	-0.196	-0.361**	-0.489**	-0.268*	-0.364**	-0.515**		
Weird	-0.709**	-0.804**	-0.648**	-0.526**	-0.714**	-0.525**	-0.637**	-0.696**	-0.705**	-0.689**	-0.761**		
Attractiveness (female faces)													
	Africa	Asia	Australia and New Zealand	Central America and Mexico	Eastern Europe	Middle East	Scandinavia	South America	United Kingdom	USA and Canada	Western Europe		
Aggressive	-0.157	-0.147	-0.255*	-0.210	-0.354**	0.020	-0.244	-0.047	-0.214	-0.181	-0.269*		
Caring	0.428**	0.441**	0.456**	0.347**	0.713**	0.411**	0.557**	0.229	0.453**	0.429**	0.545**		

Table 2 (continued)

Confident	0.749**	0.641**	0.763**	0.770**	0.763**	0.804**	0.689**	0.780**	0.800**
Dominant	0.548**	0.681**	0.637**	0.746**	0.690**	0.694**	0.640**	0.702**	0.650**
Emostable	0.674**	0.483**	0.696**	0.716**	0.766**	0.727**	0.661**	0.660**	0.820**
Intelligent	0.773**	0.920**	0.789**	0.757**	0.860**	0.776**	0.802**	0.803**	0.892**
Mean	-0.239	-0.261*	-0.176	0.162	-0.244	-0.205	-0.169	-0.077	-0.174
Responsible	0.722**	0.809**	0.818**	0.714**	0.820**	0.673**	0.843**	0.796**	0.921**
Sociable	0.701**	0.541**	0.609**	0.468**	0.722**	0.606**	0.593**	0.691**	0.662**
Trustworthy	0.693**	0.678**	0.770**	0.420**	0.759**	0.737**	0.665**	0.731**	0.771**
Unhappy	-0.311*	-0.178	-0.215	-0.280*	-0.384**	-0.412**	-0.143	-0.276*	-0.396**
Weird	-0.777**	-0.793**	-0.802**	-0.688**	-0.841**	-0.805**	-0.810**	-0.813**	-0.859**

Note. **Significant at the 0.01 level, *significant at the 0.05 level (2-tailed)

perception. Further work is still needed to better understand the influences surrounding the “attractiveness halo effect”. For instance, it would be interesting to examine whether level of access to the media affects the strength of the “attractiveness halo effect”. Nevertheless, the results from this study provide strong evidence that the “attractiveness halo effect” can be found cross-culturally.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12144-022-03575-0>.

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Data Availability The full data are available at <https://osf.io/87rbg/>.

Declarations

Ethics approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. For each testing site, approval was obtained from the local IRB, ethical approval was either not needed for this type of face rating task, or it was covered by preexisting approval.

Consent to participate All participants provided informed consent (for more details see Jones et al., 2021a).

Competing interest The authors have no competing interests to declare that are relevant to the content of this article.

References

- Albright, L., Kenny, D. A., & Malloy, T. E. (1988). Consensus in personality judgments at zero acquaintance. *Journal of Personality and Social Psychology*, 55(3), 387.
- Albright, L., Malloy, T. E., Dong, Q., Kenny, D. A., Fang, X., Winquist, L., & Yu, D. (1997). Cross-cultural consensus in personality judgments. *Journal of Personality and Social Psychology*, 72(3), 558.
- Borras-Guevara, M. L., Batres, C., & Perrett, D. I. (2017). Aggressor or protector? Experiences and perceptions of violence predict preferences for masculinity. *Evolution and Human Behavior*, 38(4), 481–489.

- Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24(3), 285–290. <https://doi.org/10.1037/h0033731>
- Forscher, P. S., Noyce, A., DeBruine, L. M., Jones, B., Flake, J. K., Coles, N. A., & Chartier, C. R. (2020). Incentivizing discovery through the PSA001 secondary analysis challenge. <https://psysciacc.org/2020/09/14/incentivizing-discovery-through-the-psa001-secondary-analysis-challenge/>
- Jones, B. C., DeBruine, L. M., Flake, J. K., Liuzza, M. T., Antfolk, J., Arinze, N. C., & Sirota, M. (2021a). To which world regions does the valence–dominance model of social perception apply? *Nature Human Behaviour*, 5(1), 159–169.
- Jones, B. C., Holzleitner, I. J., & Shiramizu, V. (2021b). Does facial attractiveness really signal immunocompetence? *Trends in Cognitive Sciences*, 25(12), 1018–1020.
- Kaplan, R. M. (1978). Is beauty talent? Sex interaction in the attractiveness halo effect. *Sex Roles*, 4(2), 195–204.
- Lucker, G. W., Beane, W. E., & Helmreich, R. L. (1981). The strength of the halo effect in physical attractiveness research. *The Journal of Psychology*, 107(1), 69–75.
- Ma, D. S., Correll, J., & Wittenbrink, B. (2015). The Chicago face database: a free stimulus set of faces and norming data. *Behavior Research Methods*, 47(4), 1122–1135.
- Marcinkowska, U. M., Kozlov, M. V., Cai, H., Contreras-Garduño, J., Dixon, B. J., Oana, G. A., & Onyishi, I. E. (2014). Cross-cultural variation in men's preference for sexual dimorphism in women's faces. *Biology Letters*, 10(4), 20130850.
- Mazzella, R., & Feingold, A. (1994). The effects of physical attractiveness, race, socioeconomic status, and gender of defendants and victims on judgments of Mock Jurors: a meta-analysis 1. *Journal of Applied Social Psychology*, 24(15), 1315–1338.
- Moshontz, H., Campbell, L., Ebersole, C. R., IJzerman, H., Urry, H. L., Forscher, P. S., ... & Chartier, C. R. (2018). The psychological science accelerator: Advancing psychology through a distributed collaborative network. *Advances in Methods and Practices in Psychological Science*, 1(4), 501–515.
- R Core Team (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Smith, E. D., & Hed, A. (1979). Effects of offenders' age and attractiveness on sentencing by mock juries. *Psychological Reports*, 44(3), 691–694.
- Stewart, J. E. (1980). Defendant's attractiveness as a factor in the outcome of criminal trials: an observational study 1. *Journal of Applied Social Psychology*, 10(4), 348–361.
- Thornhill, R., & Gangestad, S. W. (2006). Facial sexual dimorphism, developmental stability, and susceptibility to disease in men and women. *Evolution and Human Behavior*, 27(2), 131–144.
- White, A. E., Kenrick, D. T., & Neuberg, S. L. (2013). Beauty at the ballot box: disease threats predict preferences for physically attractive leaders. *Psychological Science*, 24(12), 2429–2436.
- Willis, J., & Todorov, A. (2006). First impressions: making up your mind after a 100-ms exposure to a face. *Psychological Science*, 17(7), 592–598.

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