

# Researchers find facial width-to-height ratio predicts self-reported dominance and aggression

22 October 2014, by Bob Yirka



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(Medical Xpress)—A combined team of researchers from several institutions in the U.K. has found that facial width-to-height ratio can be used to predict self-reported dominance and aggression. In their paper published in the journal *Biology Letters*, the researchers describe a study they conducted while looking for correlations between facial features and personality traits with both male and female volunteers and the results they found.

Previous research has suggested that males with large or wide faces were on average more apt to be aggressive and untrustworthy. In this new effort the researchers went further, looking for more connections between [facial structure](#) and behavioral traits and included women as well.

The researchers enlisted the assistance of 54 male and 49 female volunteers between the ages of 18 and 30—each was asked to fill out a questionnaire designed to elicit responses regarding self assessment of anger, [aggression](#), dominance and hostility. Each also had their face measured from cheek to cheek and from just above the upper lip to the top of their eyelids. When the researchers compared the facial ratios to the answers that were given, they found that on average, both male and female volunteers with wider faces reported being more aggressive, having worse tempers and being more dominant than did those with less wide faces. They did not, however, report feeling more hostile.

The researchers suggest there could be an evolutionary reason for what they found, reasoning that people with a wider face tend to have stronger cheekbones which could more easily withstand a punch from someone they'd angered.

The work by the team comes on the heels of other similar projects—another team in the U.S. for example recently found facial features tend to trigger "face-ist" responses from others, which influences how others perceive their personality. Another found that people tend to behave in more selfish ways when interacting with people with wider faces. Other studies have found links between testosterone levels and wider faces (and aggression) and many studies have been conducted that purport to show that those with certain [facial features](#) tend to do better or worse in both the workplace and in their relationships with other people.

**More information:** Facial width-to-height ratio predicts self-reported dominance and aggression in males and females, but a measure of masculinity does not, *Biology Letters*, Published 22 October 2014 [DOI: 10.1098/rsbl.2014.0729](https://doi.org/10.1098/rsbl.2014.0729)

## Abstract

Recently, associations between facial structure and aggressive behaviour have been reported. Specifically, the facial width-to-height ratio (fWHR) is thought to link to aggression, although it is unclear whether this association is related to a specific dimension of aggression, or to a more generalized concept of dominance behaviour. Similarly, an association has been proposed between facial masculinity and dominant and aggressive behaviour, but, to date, this has not been formally tested. Because masculinity and fWHR are negatively correlated, it is unlikely that both signal similar behaviours. Here, we thus tested these associations and show that: (i) fWHR is related to both self-reported dominance and aggression; (ii) physical aggression, verbal aggression and anger, but not hostility are associated with fWHR; (iii) there is no evidence for a sex difference in associations between fWHR and aggression; and (iv) the facial masculinity index does not predict dominance or aggression. Taken together, these results indicate that fWHR, but not a measure of facial masculinity, cues dominance and specific types of aggression in both sexes.

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