

In your face: facial metrics predict aggressive behaviour in the laboratory and in varsity and professional hockey players

Carré JM, McCormick CM - Proc. Biol. Sci. (2008)

Bottom Line: Based on a recent finding of a sexual dimorphism in facial metrics that is independent of body size, we conducted three studies to examine the extent to which individual differences in the facial width-to-height ratio were associated with trait dominance (using a questionnaire) and aggression during a behavioural task and in a naturalistic setting (varsity and professional ice hockey).Individual differences in the facial width-to-height ratio predicted reactive aggression in men, but not in women (predicted 15% of variance).Together, these findings suggest that the sexually dimorphic facial width-to-height ratio may be an 'honest signal' of propensity for aggressive behaviour.

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Abstract: Facial characteristics are an important basis for judgements about gender, emotion, personality, motivational states and behavioural dispositions. Based on a recent finding of a sexual dimorphism in facial metrics that is independent of body size, we conducted three studies to examine the extent to which individual differences in the facial width-to-height ratio were associated with trait dominance (using a questionnaire) and aggression during a behavioural task and in a naturalistic setting (varsity and

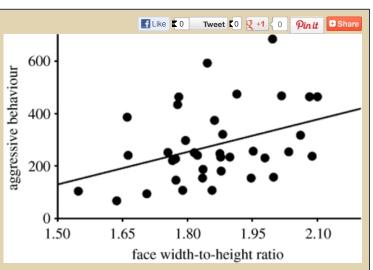


fig2: Scatter plot depicting the relationship between face width-to-height ratio and aggressive behaviour in undergraduate men (n=37, r=0.38 and p=0.02).

Mentions: Separate regression analyses for men and women were computed with trait dominance and face ratio as predictors of aggressive behaviour. For men, face ratio predicted 15 per cent of unique variance in aggressive behaviour (R2=0.18, F2,34=3.60, p=0.04; 136=2.50, p=0.02; figure 2), but trait dominance was not a significant predictor of aggression (p=0.27). Furthermore, the face ratio by trait dominance interaction was not significant (Rchange2=0.001, F1,33=0.04, p=0.84). For women, face ratio and trait dominance did not predict aggressive behaviour (R2=0.03, F2,41=0.66, p=0.52), nor did the interaction (Rchange2=0.003, F1,40=0.14, p=0.72).

professional ice hockey). In study 1, men had a larger facial width-to-height ratio, higher scores of trait dominance, and were more reactively aggressive compared with women. Individual differences in the facial width-to-height ratio predicted reactive aggression in men, but not in women (predicted 15% of variance). In studies 2 (male varsity hockey players) and 3 (male professional hockey players), individual differences in the facial width-to-height ratio were positively related to aggressive behaviour as measured by the number of penalty minutes per game obtained over a season (predicted 29 and 9% of the variance, respectively). Together, these findings suggest that the sexually dimorphic facial width-to-height ratio may be an 'honest signal' of propensity for aggressive behaviour.

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