

A lower 2D:4D-ratio was associated with higher sociosexual orientation, but not with current physical activity patterns - results from a sample with young adults

Dena Sadeghi-Bahmani¹, Dominic Kalt², Markus Gerber², Annette Brühl³, Kenneth Dürsteler⁴, Serge Brand^{2,3}

¹ Department of Psychology, Stanford University, Stanford CA, USA, ² Departement für Sport, Bewegung und Gesundheit, Universität Basel, ³ Zentrum für Affektive, Stress- und Schlafstörungen, Universitäre Psychiatrische Kliniken (UPK) Basel CH, ⁴ Zentrum für Abhängigkeitserkrankungen, Universitäre Psychiatrische Kliniken (UPK) Basel CH

Introduction

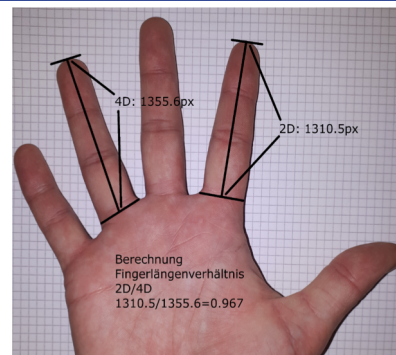
There is consistent evidence that the relation between the lengths of the index finger (2D:4D-ratio) and the length of the ring finger (4D) is indicative for a relative and specific sex-steroid exposure in prenatal stage. Further, the 2D:4D-ratio is associated with a broad variety of psychological and performance-related traits.

2D:4D-ratio

2D:4D-ratio:

Lower ratio = ring finger is longer, compared to the index finger = more testosterone exposure

Higher ratio: ring finger is shorter, compared to the index finger = less testosterone exposure



Methods and Materials

Participants

- 90 participants; $m_{\text{age}} = 23$ years; 52.2% males

Method

- Participants completed a series of self-rating questionnaires covering current and past subjective physical activity patterns, Dark Triad traits, and socio-sexual orientation. Further, participants provided a high-resolution scan of their right hand (see Figure).

Results

A lower 2D:4D-ratio (= higher testosterone exposure during prenatal stage) was associated with higher PAST physical activity patterns, but not with CURRENT physical activity patterns.

A lower 2D:4D-ratio (= higher testosterone exposure during prenatal stage) was associated with higher Dark Triad traits (Machiavellianism; psychopathy).

Compared to female participants, male participants had a lower 2D:4D-ratio.

A lower 2D:4D-ratio (= higher testosterone exposure during prenatal stage) was associated with higher a higher socio-sexual orientation, that is to say: The lower the 2D:4D-ratio, the more a person was interested in short-term sexual strategies.

Discussion

Against expectations, a lower 2D:4D-ratio was NOT associated with CURRENT, but with PAST physical activity patterns. It is conceivable that the physiological predisposition to higher physical activity patterns might fade out over time from childhood to young adulthood. Further, as expected, a lower 2D:4D-ratio was associated with a more pronounced attitude to achieving short-term sexual encounters, which by nature imply a low tendency to higher investment in emotional and responsible bonding.

Contact

Dena Sadeghi-Bahmani PhD
Stanford University, Stanford CA, USA
bahmanid@stanford.edu

Serge Brand, PhD
Universität Basel, UPK
serge.brand@upk.ch