

Facial Recognition of Dark Triad Traits and the Link to Prenatal Androgen Exposure



FORT HAYS STATE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY

Forward thinking. World ready.

Arianne Fisher and Taylor Willits

Background

The Dark Triad

- Psychopathy
- Machiavellianism
- Narcissism

Prenatal Androgen Exposure

- Measured by the ratio of the second to the fourth finger (2D:4D ratio)
- Dark Triad and low 2D:4D ratios share similar behavioral components in humans: disagreeableness, risk-taking behavior, high number of sex partners

Facial Feature Identification

- People are able to pick out faces of individuals who scored high on individual components of the Dark Triad



Hypotheses

Higher levels of Dark Triad traits in participants will lead them to...

1. Be better at identifying other individuals high in the Dark Triad traits based on facial features
2. Be better at identifying individuals high in short-term mating and intrasexual competition
3. Be worse at identifying individuals high in long-term mating
4. Have lower 2D: 4D ratios, indicating higher levels of prenatal androgen exposure

Materials

Participants

- 66 undergraduate students (17 males, 49 females, $M_{AGE} = 20.02$, $SD_{AGE} = 4.09$)

Materials

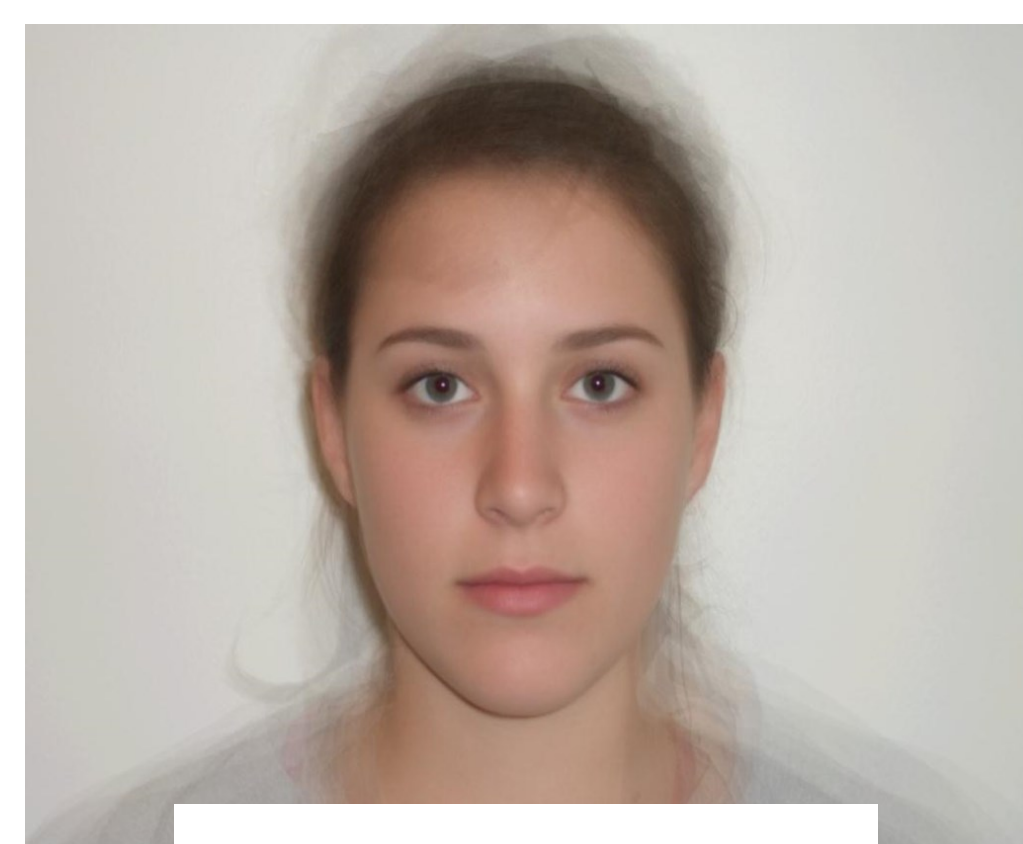
- PowerPoint slideshow with faces (Holtzman, 2011) high and low in the following traits: psychopathy, narcissism, Machiavellianism, intrasexual competition, short-term mating, long-term mating.
- Survey with faces, a demographics page with a space for researchers to record the participant's 2D:4D ratio, and the Dirty Dozen measure of the Dark Triad were included (Jonason & Webster, 2010).

Procedure

Participants...

1. Rated each face for expressiveness of the given trait on a 1 to 6 scale (1 = Person A is definitely highest, 6 = Person B is definitely highest)
2. Completed the demographic and Dark Triad questionnaires
3. Participants were measured for their 2D:4D ratios using their right hands and digital calipers

Which person is higher in psychopathy?



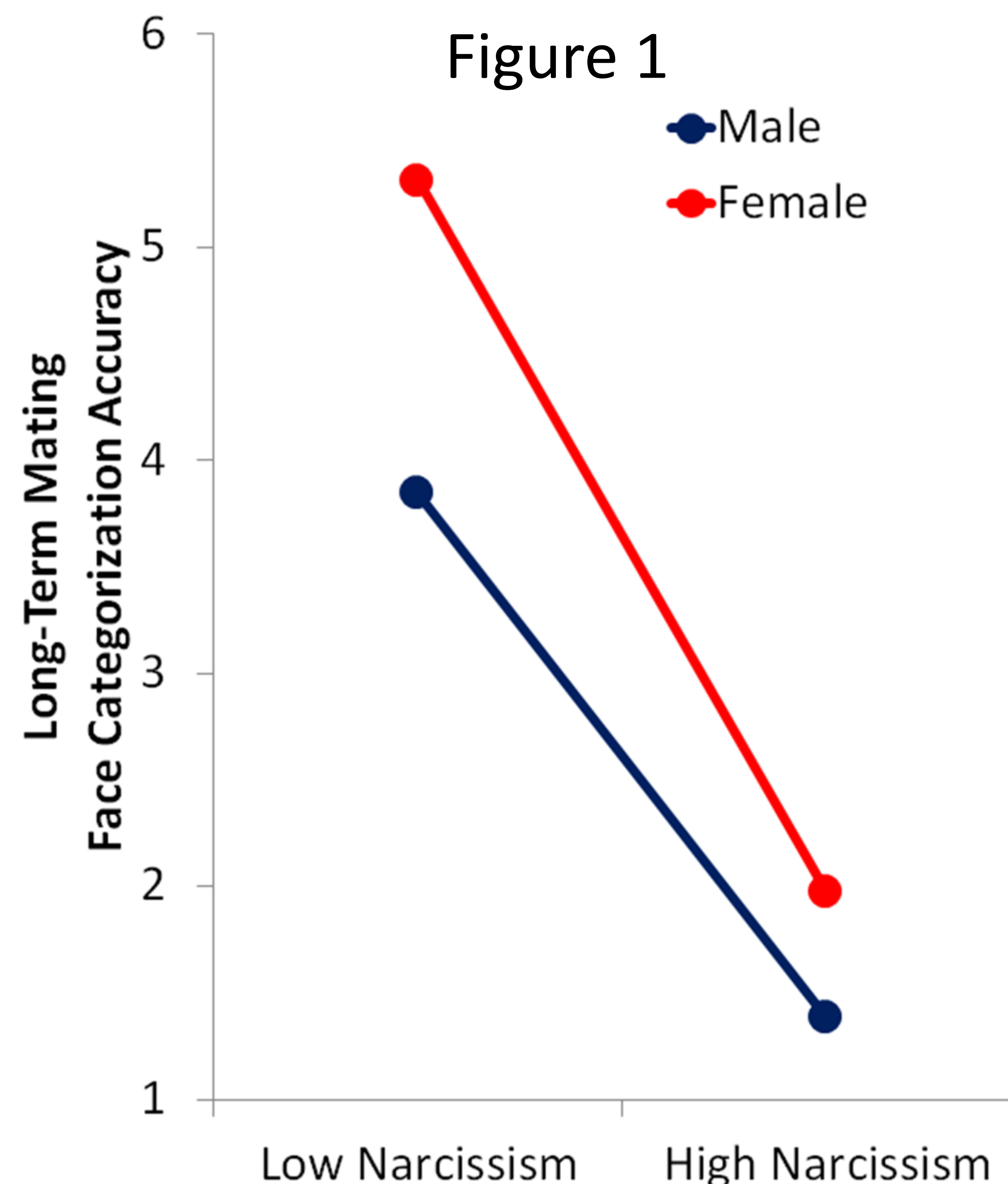
Person A



Person B



→ 2D:4D ratio



Results & Discussion

H1: Not supported

Dark Triad scores had no relationship with face perception accuracy

H2: Partially supported

Narcissism positively correlated with identifying short-term mating faces (for males only)

H3: Supported

Dark Triad negatively correlated with identifying long-term mating faces (see Figure 1)

H4: Not supported

No relationship between Dark Triad traits and 2D:4D ratio

Results support possible short-term mating benefits for individuals high in the Dark Triad traits. Although a low 2D:4D ratio did not predict high levels of Dark Triad traits, the developmental pathways of these traits should continue to be studied.

Contact Information

Taylor Willits tiwillits@mail.fhsu.edu

Arianne Fisher alfisher5@mail.fhsu.edu

Dr. Trey Hill (Faculty Sponsor) wthill@fhsu.edu