



The Influence of Dominance, Narcissism, and Testosterone on High Status Behavior

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Background

- Testosterone and dominance have been found to be associated with status-relevant behaviors
- Narcissism has been associated with certain aspects of interpersonal dominance
- Cortisol has been theorized to act as a behavioral moderator of testosterone-driven behavior
- Most status research is on competition

Research Questions

- How will testosterone, dominance, and narcissism influence behavior in a cooperative setting?
- How will cortisol moderate the relationship between testosterone, dominance, and behavior?
- Will status provoke changes in cortisol?

Participants

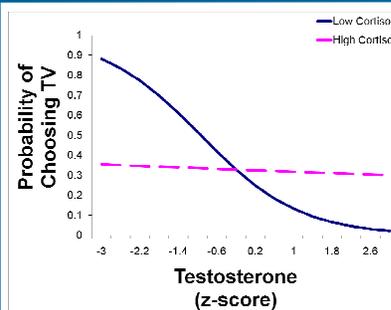
- N = 39 dyads (78 participants, mean age = 19.1)
 - 36 males
 - 42 females
- All undergraduates at UT Austin

Procedure

- Completed online personality questionnaires
- Provided saliva sample
- Rated desire for status
- Status condition (high/leader or low/follower) assigned
- Completed proofreading task:
 - High Status participants chose to watch TV or help partner with task
 - Low Status participants completed task; then asked whether they would have watched TV or helped if they were assigned high status
- Both re-rated desire for status
- Provided second saliva sample

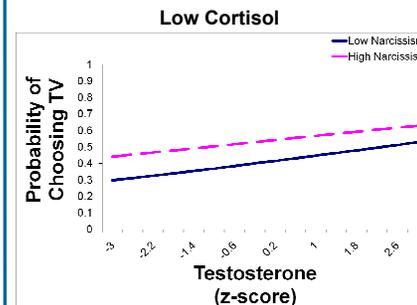
Results

Testosterone and Dominance



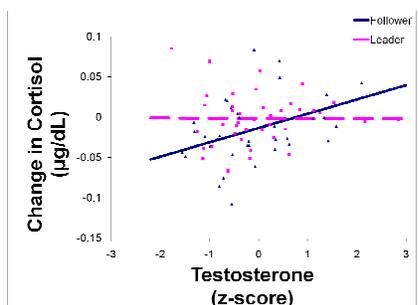
$\chi^2(1) = 3.40, p = 0.07$

Narcissism and Task Choice

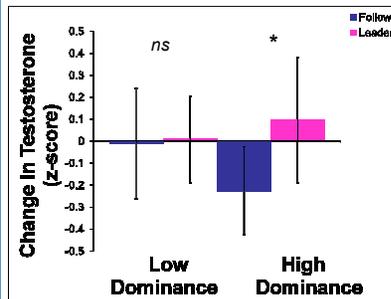


$\chi^2(1) < 0.01, p = 0.98$

Cortisol and Status

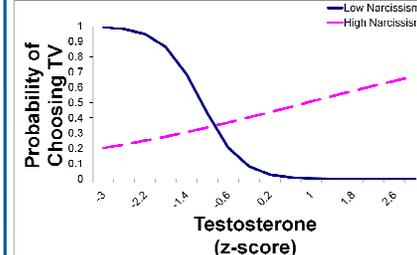


$\beta = -0.02, t = 2.31, p = 0.02, R^2 = 0.17$

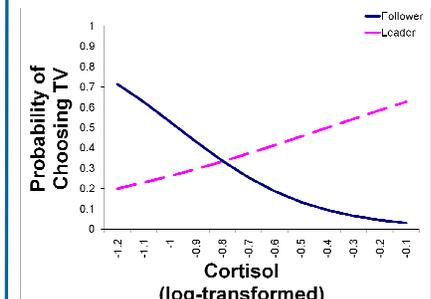


* $t(33) = 1.87, p = 0.07$

High Cortisol



$\chi^2(1) = 6.23, p = 0.01$



$\chi^2(1) = 4.72, p = 0.03$

Discussion

- Cortisol appears to moderate the relationship between both testosterone and narcissism and behavior. It is only when cortisol is low that testosterone influences behavior, and it is only when cortisol is high that narcissism influences behavior.
- Status interacts with testosterone (a biomarker of dominance) to predict changes in cortisol, suggesting that people high in testosterone (i.e. high in dominance) find being placed in a low status position to be stressful. The significant drop in testosterone for those who high in dominance when assigned to the follower position further supports this interpretation.