



## 3rd World Conference on Psychology and Behavioral Sciences

London, United Kingdom

18\_ 20 July 2025

# The Biology of Evil: Dark Triad Traits Blunt Oxytocin Response in Team Success

**Gayle T. Dow, PhD**

*Christopher Newport University, USA*

### **Abstract**

The Dark Triad, comprising psychopathy, narcissism, and Machiavellianism, is associated with diminished empathy, antagonistic interpersonal styles, and strategic self-interest. This study investigated how these traits moderate physiological responses (specifically oxytocin and cortisol) to winning or losing a competitive, creative group task. Sixty-five participants completed a measure of the Dark Triad and then competed in small teams in the spaghetti tower challenge to build the tallest tower possible. Salivary oxytocin and cortisol levels were assessed before and after the task. Results revealed that winning generally predicted an increase in oxytocin levels ( $r = .27, p = .04$ ), but this effect was significantly dampened in individuals with higher Dark Triad scores. Specifically, psychopathy ( $\beta = -.09, p = .02$ ), narcissism ( $\beta = -.06, p = .03$ ), and Machiavellianism ( $\beta = -.07, p = .03$ ) each moderated the relationship between winning and oxytocin, suggesting a blunted affiliative response. In contrast, no significant moderating effects were observed for cortisol ( $ps > .05$ ), indicating that stress reactivity was unaffected by Dark Triad traits in this context. These findings highlight the social cost of Dark Triad tendencies—even in collaborative success, individuals high in these traits may remain biologically disengaged, suggesting a physiological basis for their interpersonal deficits.

**Keywords:** dark triad, psychopathy, narcissism, Machiavellianism, oxytocin, cortisol, creativity, competition.