





Affiliation under stress: Investigating the link between implicit motives and stress-regulation

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Implicit Motives

Nonconscious, nonverbally represented, affect-based preferences for certain classes of incentives that orient attention toward specific cue stimuli in the environment and energize behavior (McClelland, 1987)

*n*Affiliation

Need to establish, maintain, or restore positive social relationships with others

*n*Power Need to exert physical, psychological, or emotional influence over others

*n*Achievement

Need to increase or maintain one's own proficiency in an activity

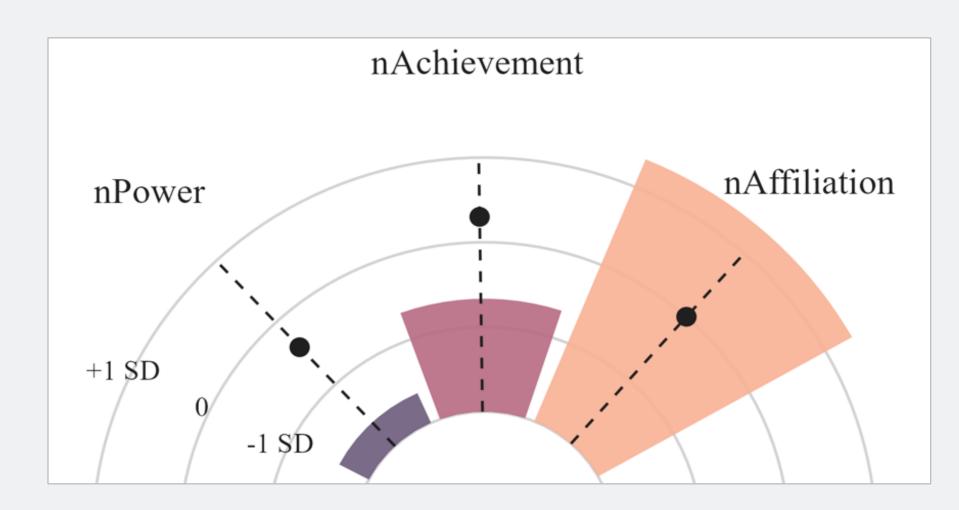
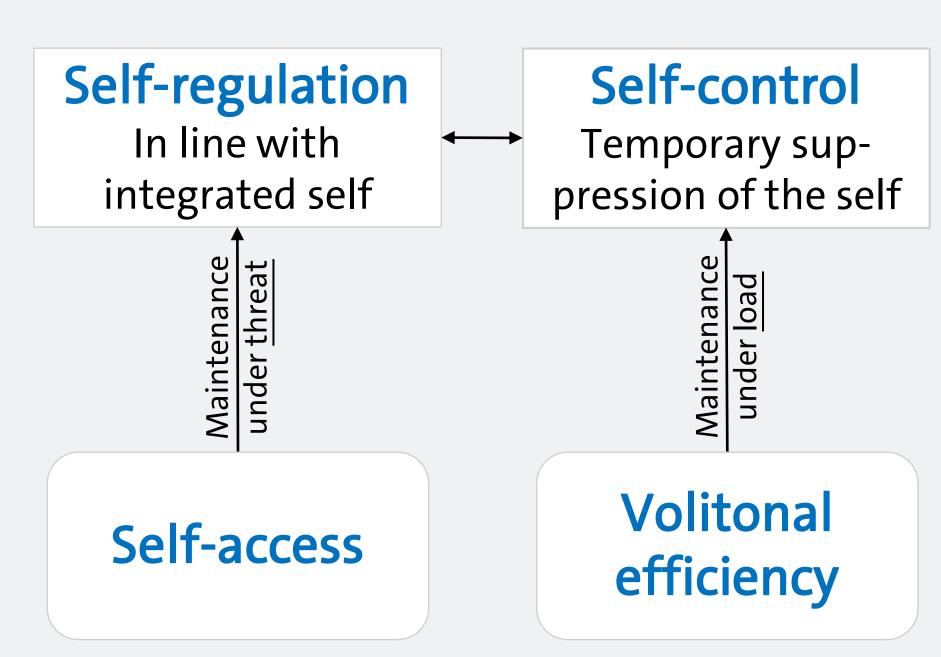


Figure 1 Example implicit motive profile of a subject

Volitional Components

(Kuhl & Fuhrmann, 1998)



Implicit Motives & Self-regulation

need-relevant Implicit motives components of the implicit self-system that direct behavior to satisfy personal needs, self-defining goals, values, and other characteristics (Kuhl, 2018)

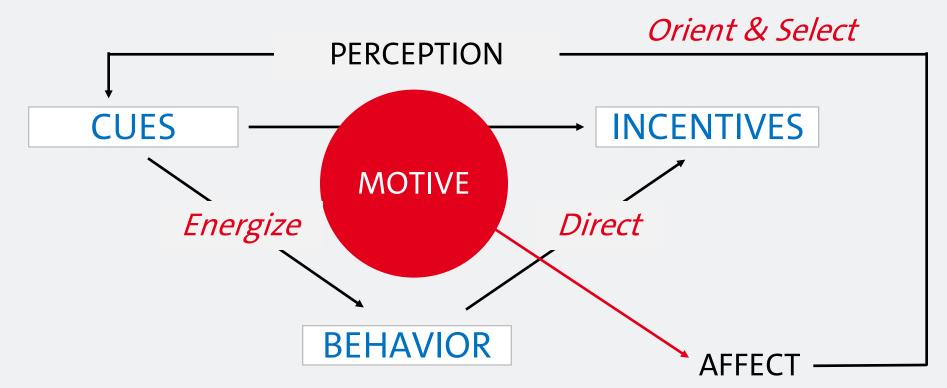


Figure 2 Functions of implicit motives (Schultheiss, 2008)

Stress-Regulation

Psychological or behavioral responses to stressful situations or events

- Fight-or-flight: Overcome the stressors or try to flee it (Cannon, 1932)
- Tend-and-befriend: Tending to offspring and affiliating with others who provide resources and protection (Taylor et al., 2002)

Affiliation under stress

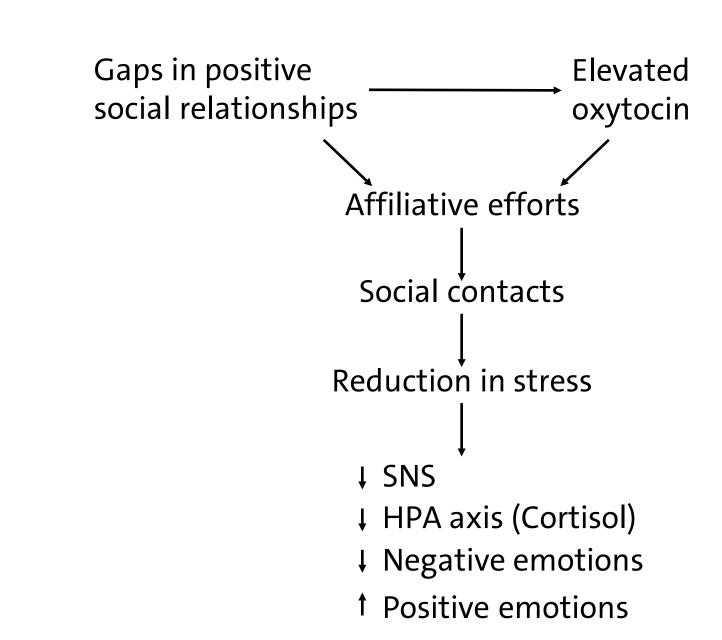


Figure 3 Biological signaling system of tend-and-befriend behavior (Taylor, 2012)

High-affiliation individuals show enhanced stress resistance (McClelland, promoted by affiliative behavior during threat?

Research question

Does the implicit affiliation motive predict tend-and-befriend rather than fight-or-flight responses, in comparison to the achievement and power motive?

Methods

Participants

N= 291 health science students and people working in health care

 $M_{\text{age}} = 33.68$, $SD_{\text{age}} = 12.41$; 77.66 % women Measures

Implicit motives: Picture Story Exercise (Schultheiss & Pang, 2007; Winter, 1994)

Volitional components: Self-regulation Inventory (SSI-K3, Kuhl & Fuhrmann, 2004)

Tend-and-befriend/fight-or-flight: Tend-and-Befriend Questionnaire (Levy et al., 2019; Turton & Campbell, 2007)





Sample images from the Picture Story Exercise

Analyses

- Implicit motives were scored according to the marker word hypothesis (Schultheiss, 2013) using Linguistic Inquiry and Word Count software (age and gender were residualized on motive scores)
- Path analyses using the *lavaan* package (Rosseel, 2012) in R were used to predict tend-and-befriend, fight and flight based on implicit motives

Results

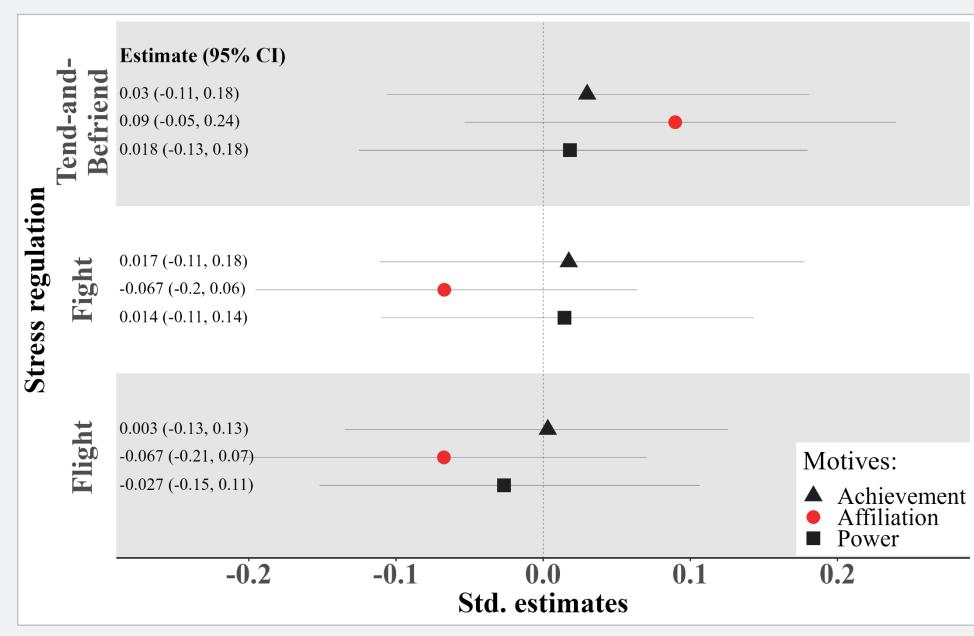


Figure 4 Estimates of the path analyses with 95% CI predicting stress-regulation based on implicit motives

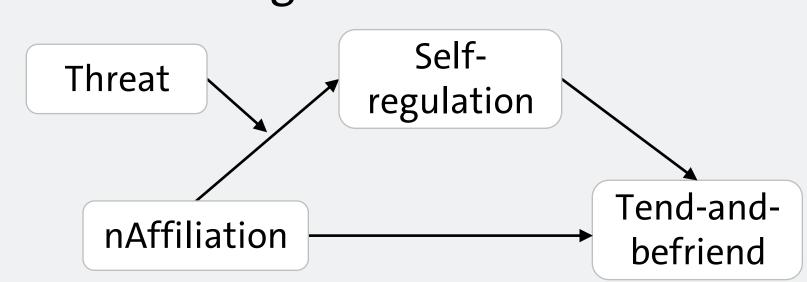
Discussion

People with an implicit affiliation motive showed a tendency to regulate stress using tend-and-befriend over fight-or-flight

- Higher levels of affiliation motivation are preceded by greater increases of progesterone which exerts anxiolytic effects in the brain and may thereby downregulate fight-flight responses and upregulate tend-and-befriend responses (Wirth & Schultheiss, 2006)
- A congruent explicit motive and/or selfcongruent goals (self-regulation) may be further needed to promote the association between implicit affiliation and tend-andbefriend (e.g., Schüler et al. 2008)

Future Directions

Investigate which volitional components (under threat) promote tend-and-befriend behavior of high-affiliation individuals



Study operant (vs. respondent) measures of affiliative self- and stress-regulation and associated biopsychological correlates

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