Functional leadership: Bi-strategic controllers high on effortful control show gains in status and health

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ABSTRACT

Most human studies reveal that social strategy is important to dominance rank within a hierarchy. In particular, bi-strategic controller strategies, the combination of prosocial (helping behavior) and coercive strategies (forcing others) are related to achieving and maintaining social dominance. Additionally, temperament traits such as effortful control are important in allowing the individual to fine-tune strategy use to the current context. However, social hierarchies also involve social dynamics that may create physical and emotional challenges, and these challenges are tied to health outcomes. The current study examines the relationships between social positioning, social strategy usage, temperament traits, and health. Findings reveal that self-reported social dominance was related to bi-strategic strategy usage. In addition, rating high in both bi-strategic resource control and effortful control (referred to as functional leadership orientation) was related to a variety of health components including energy, emotional well-being, social functioning and overall physical health. Although the causal direction remains unclear, it appears that bi-strategic controllers who are also high on effortful control are able to achieve both high status and better overall health.

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1. Introduction

Social interactions involve dynamics such as communication, relationships, resource obtainment, and social understanding. These social dynamics often involve physical and emotional challenges encompassing the intricate workings of some form of social hierarchy (Hawley, 1999). Studies have suggested that an interaction of biological, personality/temperament, and social environmental factors may impact social positioning or dominance placement within a hierarchy. Many human studies reveal that flexible social strategy use (strategies to gain and maintain resources) achieves and maintains dominant positioning (Hawley, 2003). In particular, the Resource Control Theory and the Social Centrality Hypothesis describe effective social control through manipulation of resources within the hierarchy (Hawley, 2008, 2014). Additionally, research suggests that personality traits such as conscientiousness and, more specifically, effortful control (the ability to inhibit a dominant response to perform a subdominant response) (Rothbart & Bates, 2006) may be important to allow optimal social strategy use (Massey, Byrd-Craven, & Swearingen, 2014). However, the role of social strategy use in health-related outcomes is unclear.

Within hierarchical interactions, striving for status and the struggle for acquiring associated resources important to survival and reproduction is typically associated with some form of social stress (Sapolsky, 2004). Social stress can impact quality of life as well as overall health. In particular, the literature shows differential physiological patterns and susceptibility to stress-related outcomes at different levels of a hierarchy. These effects, however, are far from uniform across studies, with some studies showing dominant individuals have a more pronounced physiological response to hierarchical interactions while others show that it is subordinate individuals who have a more pronounced response (Davis, Donzella, Krueger, & Gunnar, 1999; Ostner, Heistermann, & Schülke, 2008; Poisbleau, Fritz, Guillon, & Chastel, 2005). These divergent findings may be attributed to activation of the stress responses systems due to stress (*e.g.*, a threat to an important goal) or arousal related to opportunities to gain resources or positioning. Further, the trade-off between mounting a physiological response to social dynamics is dependent on the perception of the individual, her/his phenotype and life history traits (Del Guidice, Ellis, & Shirtcliff, 2011; Ellis, Essex, & Boyce, 2005; Nesse, Bhatnagar, & Young, 2007). The current study adds to this knowledge by examining the relationship of self-reported social positioning, social strategy usage, temperament, and health during emerging adulthood.

1.1. Dominance

Social dominance involves leadership and prominence or visibility within the hierarchy (Hawley, 2014). Both human and non-human literature shows that leaders must strike a balance between pursuing

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their own interests and those that benefit the group (Flack, de Waal, & Krakauer, 2005; Flack, Krakauer & de Waal, 2005; Price & Van Vugt, 2014). Competitive forces give rise to both antagonistic and other oriented behavioral strategies (Hawley, 2008). The theoretical perspective of Resource Control Theory provides a context to understand both competitive and cooperative behavior within social status striving.

Resource Control Theory describes strategy usage in order to control and manipulate social resources within the hierarchy (Hawley, 2014). Relatedly, the Social Centrality Hypothesis states that aggression in the service of effective resource control can not only be effective, but also appealing to the social group, such that peers gravitate toward the effective resource controller. Taken together, it appears a subset of aggressors can be socially skilled and socially appealing, and the benefits of associating with these individuals may outweigh the costs (Hawley, 2008).

Hawley and colleagues have defined five resource control strategy types: noncontrollers, typical controllers, prosocial controllers, coercive controllers, and bi-strategic controllers (Hawley, 2003). These groups are defined based on self-reported, peer-reported, or parent/teacher-reported use of prosocial and coercive strategies for resource obtainment. Socially dominant individuals often use both coercive and prosocial strategies (bi-strategic controllers) in order to gain and maintain resources (Hawley, 2008; Roseth et al., 2011). Coercive strategies involve making and forcing others to follow plans. Prosocial strategies involve helping behavior (Hawley, 2008). Resources may be anything from money, time, support, or assistance. For example, often individuals that are bi-strategic will both assist others and control others in order to gain and maintain the resources they are interested in. This bi-strategic behavior often leads to the individual not necessarily being liked by most, but being perceived as socially prominent or dominant. Bi-strategic individuals are rated by peers as being high on intimacy and fun, but also high on conflict and aggression (Hawley, Little, & Card, 2007). This social strategy allows for effective control of social resources by increasing social focus, flexible strategy use, and the ability to effectively wield social power (Hawley, Little, & Pasupathi, 2002).

1.2. Temperament and dominance

Studies have found a variety of temperament and personality traits related to social dominance. For example, extroverted individuals reported the largest personal network size (Vanbrabant et al., 2012) and the combination of extraversion and emotional stability was related to observed popularity (van der Linden, Scholte, Cillessen, Nijenhuis, & Segers, 2010). Temperament, or a biologically based systematic way of responding, may play a particularly large role in resource obtainment within the hierarchy. In particular, effortful control is related to improved social and career status as well as the use of both prosocial and coercive strategies (bi-strategic), possibly enabling the most flexible use of prosocial or coercive strategies related to an ever-changing social context (Hawley et al., 2002; Massey et al., 2014). Effortful control is defined as the ability to inhibit a dominant response to perform a subdominant response (Rothbart & Bates, 2006). Effortful control, because of its inherent association with delayed gratification, may be not only related to the type of strategy used, but may be related to being able to use that strategy at the most opportune time, consistent with the Social Centrality Hypothesis (Hawley, 2008).

1.3. Status and health

The stress response systems play an integral part of managing the ups and downs of everyday life by influencing the amount of energy released, the immune activity, and the level of mental alertness, memory, and learning (Flinn & England, 1995; McEwen, 1998). Social hierarchies represent a specific source of psychosocial challenge that has been associated with neuroendocrine reactivity (Flinn, 2006; Sapolsky, 2004). In

particular, the HPA system appears to be responsive to stressors that involve socio-evaluative threat (Dickerson & Kemeny, 2004). If the HPA system is activated repeatedly, without opportunity for recovery, it is associated with some costs. Chronic HPA activation can be a risk factor for a variety of illnesses including auto-immune disorders, mental illness, hypertension, digestion problems, irregular ovulatory cycles, irritable bowel syndrome, erectile dysfunction, muscle atrophy, fatigue, and increased morbidity (Sapolsky, 2004; Sapolsky, Romero, & Munck, 2000). Overall, studies have shown psychosocial stressors related to hierarchy negotiations can result in chronic HPA activation, which then can result in immunosuppression leading to a variety of negative health consequences (Flinn & England, 1995; McEwen, 1998; Sapolsky, 2004). Overall health, therefore, can yield an index of frequency and intensity of stress response system activation and can provide clues as to how well an individual manages current social challenges.

1.4. The current study

The current study examines the relationship between self-reported social positioning, temperament, social strategy usage, and health in emerging adulthood. As we were interested in the intersection among several traits, we created a variable that combines effortful control and resource obtainment strategies specifically bi-strategic resource control: functional leadership orientation. Bi-strategic resource control has been associated with effective control of social resources, social dominance, and health (Hawley et al., 2007; Massey et al., 2014). Effortful control has been associated with a number of positive physical and mental health outcomes including decreased illness over the last six months, decreased frustration, and decreased fearfulness (Massey et al., 2014; Oldehinkel, Hartman, Ferdinand, Verhulst, & Ormel, 2007). Given the associations between achieving dominance and health in both the human and animal literature, it follows that those high in bi-strategic resource control and effort control would have the most positive health outcomes. Our hypotheses include individuals who self-reported as dominant would use a combination of prosocial and coercive strategies (bi-strategic). This has been seen in previous literature (Hawley, 2003). In addition, individuals high in both effortful control and bi-strategic resource control, a variable we have labeled as functional leadership orientation, would have better overall physical health (Hawley et al., 2007; Massey et al., 2014). Finally, those higher in functional leadership orientation would report better psychological health (Hawley et al., 2007; Massey et al., 2014). Studies have shown a link between effortful control and better mental and physical health. Studies have also shown bi-strategic resource control related to better mental and physical health. The current study addresses the connection between effortful control and bi-strategic strategies to increase overall health.

2. Materials and methods

2.1. Participants

One hundred and ninety undergraduates participated in the study and were recruited through a subject pool website and given partial course credit for participating (males n = 85, females n = 104). The average age of participants was 19.03 years (SD = 1.60, range = 18 to 26).)

2.2. Measures

2.2.1. Demographic questionnaire

This questionnaire assessed age, sex, and self-assessed dominance rank of the individual on a scale of 1 to 5. This one question self-assessment rank of dominance has been used in previous literature (Massey, Byrd-Craven, Auer, & Swearingen, 2015).