



**Echoes of our upbringing: How growing up wealthy or poor relates to narcissism, leader behavior, and leader effectiveness**

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Abstract:	<p>We investigate how parental income during one's upbringing relates to his or her effectiveness as a leader after entering an organization. Drawing on research on the psychological effects of income, social learning theory, and the integrative trait-behavioral model of leadership effectiveness, we propose a negative, serially mediated association between higher parental income and lower future leader effectiveness via high levels of narcissism and, in turn, reduced engagement in behaviors that are viewed as central to the leadership role. We test our model using multisource data collected from active soldiers in the United States Army. Results reveal that parental income exerts indirect effects on leadership effectiveness criteria because a) parental income is positively related to narcissism as an adult, b) narcissism relates negatively to engaging in task-, relational-, and change-oriented leadership behaviors, and c) reduced engagement in these behaviors relates to lower leader effectiveness. Our investigation advances theory by identifying pathways through which parental income relates to the effectiveness of leaders in organizations, and by illuminating the origins of a trait (narcissism) that predicts the behavior and effectiveness of leaders.</p>

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## Echoes of our Upbringing: How Growing up Wealthy or Poor Relates to Narcissism, Leader Behavior, and Leader Effectiveness

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**Abstract:**

We investigate how parental income during one's upbringing relates to his or her effectiveness as a leader after entering an organization. Drawing on research on the psychological effects of income, social learning theory, and the integrative trait-behavioral model of leadership effectiveness, we propose a negative, serially mediated association between higher parental income and lower future leader effectiveness via high levels of narcissism and, in turn, reduced engagement in behaviors that are viewed as central to the leadership role. We test our model using multisource data collected from active soldiers in the United States Army. Results reveal that parental income exerts indirect effects on leadership effectiveness criteria because a) parental income is positively related to narcissism as an adult, b) narcissism relates negatively to engaging in task-, relational-, and change-oriented leadership behaviors, and c) reduced engagement in these behaviors relates to lower leader effectiveness. Our investigation advances theory by identifying pathways through which parental income relates to the effectiveness of leaders in organizations, and by illuminating the origins of a trait (narcissism) that predicts the behavior and effectiveness of leaders.

**Keywords:** Parental income, leadership, narcissism, leader effectiveness, organizational citizenship behaviors, counterproductive work behaviors

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3 The income disparity between the “haves” and “have nots” is greater now than it  
4 has been at any time since the Great Depression of the 1930’s (Piketty & Saez, 2014). As  
5 a result of high inequality, children spend their formative years in vastly different  
6 resource environments. Some children grow up in resource rich environments; others in  
7 poverty (Evans, 2004; McLoyd, 1998). Sociological and psychological research indicates  
8 that these differences matter—parental income has important consequences for people’s  
9 lives. In past research, individuals with higher income parents exhibited better health and  
10 lower mortality rates (Chen, Matthews, & Boyce, 2002; Duncan, Ziol-Guest, & Kalil,  
11 2010) but were often less generous (Miller, Kahle, & Hastings, 2015) than individuals  
12 with lower income parents.  
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27 This disciplinary research suggests an interesting possibility that has so far  
28 received little attention in the management literature: Growing up in a rich or poor  
29 environment may have implications for how people interact in organizations (Côté, 2011;  
30 Gray & Kish-Gephart, 2013; Leana & Meuris, 2015). In particular, parental income may  
31 be particularly important for leadership given its relational nature (Bryman, 1999). Even  
32 so, we do not know whether or how parental income relates to leadership behaviors and  
33 effectiveness. Leadership theories have neglected the role of parental income (Côté,  
34 2011; Leana & Meuris, 2015), compared to other individual differences such as  
35 personality traits and abilities, which have received much more attention (DeRue,  
36 Nahrgang, Wellman, & Humphrey, 2011; Judge, Bono, Ilies & Gerhardt, 2002).  
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38 Moreover, while there is growing evidence from psychological research that parental  
39 income shapes thinking and action (cf. Chen, Zhu & Chen, 2013; Duncan, Ziol-Guest, &  
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3 Kalil, 2010; Miller et al., 2015; Piff, 2014), these studies were conducted outside of  
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5 organizations and did not examine the leadership process.  
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8           Examining whether parental income shapes the behavior and effectiveness of  
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10 leaders is important. The growing gap between the “haves” and “have nots” suggests that  
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12 people with very different resource backgrounds are entering the workforce. This is likely  
13  
14 consequential, because these different backgrounds might influence their behaviors and  
15  
16 subsequent effectiveness as leaders. As such, variation in parental income raises  
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18 questions about how organizations can manage and leverage differences among people in  
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20 ways that are productive for organizations and fair to members. To address this  
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22 challenge, we must understand how people from different economic strata lead others.  
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27           Here, we develop and test theory about how parental income relates to the  
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29 behavior and effectiveness of leaders. In developing our theory, we integrate research on  
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31 the psychological consequences of income—particularly the self-sufficiency hypothesis  
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33 (Miller et al., 2015; Piff, 2014; Vohs, Mead, & Goode, 2006), social learning theory  
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35 (Bandura, 1977), and the leadership behavior paradigm (Bass & Stogdill, 1990; Judge,  
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37 Piccolo, & Ilies, 2004). As a framework, we adopt the integrative trait-behavioral model  
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39 of leadership effectiveness (DeRue et al., 2011), which posits that stable individual  
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41 differences influence leaders’ behaviors, and in turn these behaviors relate to multiple  
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43 dimensions of leader effectiveness. We propose that growing up with higher income  
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45 parents facilitates the development of higher levels of narcissism, and that in ongoing  
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47 leader-follower relationships, higher levels of narcissism are associated with less  
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49 engagement in relational-, task-, and change-oriented behavior among leaders. In turn,  
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51 leaders who are perceived to engage in fewer of these behaviors are rated by followers as  
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3 less effective, and the followers in the units they lead engage in fewer citizenship and  
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5 greater counterproductive behaviors. These relationships are tested in the field among  
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7 actively engaged leaders and followers, and using a multisource survey and archival data.  
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10 This investigation makes three theoretical contributions. First, it joins emerging  
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12 research on the psychological consequences of income (Miller et al., 2015; Piff, 2014;  
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14 Vohs et al., 2006) with research on leadership effectiveness (DeRue et al, 2011; Yukl,  
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16 2011), two areas that have yet to be integrated. Using insights from social learning theory  
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18 that people acquire values and develop behavioral patterns by observing and interacting  
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20 with important role models, including their parents (Bandura, 1977), we test whether  
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22 parental income relates to leaders' future behaviors and effectiveness. We focus on  
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24 parental income rather than the broad construct of social class because theory and  
25  
26 evidence suggest that the different facets of social class (income, education, and  
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28 occupation prestige) have distinct—and in some cases opposite—effects (Ariely & Mann,  
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30 2013; Longest, Hitlin, & Vaisey, 2013; Trautmann, van de Kuilen, & Zeckhauser, 2013).  
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36 Second, our investigation contributes to our understanding of leadership by  
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38 extending the integrative trait-behavioral model of leadership effectiveness (DeRue et al.,  
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40 2011) and further exploring the related roles of parental income and narcissism in  
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42 leadership as a process. The trait-behavioral model of leadership effectiveness is largely  
43  
44 silent on how leaders acquire influential traits and tendencies. We identify a factor that  
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46 sets the process described in the model in motion. We examine parental income as an  
47  
48 antecedent factor that relates to the trait of narcissism and, in turn, leader behavior and  
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50 leader effectiveness. Moreover, prior work has explored more broadly how the material  
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52 background of one's childhood (Kish-Gephart & Campbell, 2015) or levels of narcissism  
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3 (Chatterjee & Hambrick, 2007) influence the strategic decisions that leaders make. This  
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5 work, however, has not explored how these factors influence leadership as a social  
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7 process involving enduring relationships and influence between leaders and followers  
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9 (Yukl, 2011).  
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12 Finally, this study brings research regarding the psychological consequences of  
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14 growing up in high- versus low-income conditions to the organizational context. Past  
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16 studies on parental income were conducted outside of organizational contexts, often with  
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18 participants who were students, children, or online respondents (Chen et al., 2013; Miller  
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20 et al., 2015; Piff, 2014). Our research investigates associations between parental income  
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22 and individuals' behavior after they enter organizations and attain positions of leadership  
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24 many years later, and thus tests whether parental income relates to behavior in a dynamic  
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26 organizational setting where competing influences may limit its effects.  
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### 31 32 **PARENTAL INCOME, NARCISSISM, AND LEADERSHIP BEHAVIORS**

#### 33 34 **Parental Income and Narcissism**

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36 Drawing from past theory and research on the psychological consequences of  
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38 income, we argue that—all else equal—higher parental income is associated with higher  
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40 levels of narcissism in adulthood than lower parental income. Narcissism is characterized  
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42 by grandiose self views, impulsiveness, reduced empathy, beliefs that one deserves  
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44 special treatment, strong feelings of uniqueness, and a dominant orientation toward others  
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46 (Campbell & Campbell, 2009; Emmons, 1989; Leary, Bednarski, Hammon, & Duncan,  
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48 1997; Vazire & Funder, 2006). Individuals low in narcissism simply have more realistic  
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50 self-views, rather than having negative self-views, or low confidence or self-esteem.  
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3 Social learning theory posits that people acquire behavioral patterns through  
4 observation and reinforcement by influential others, including parents (Bandura, 1977).  
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6 According to this theory, parents model certain behaviors that children reproduce because  
7 they consider these behaviors to be appropriate and desirable. Parents also influence their  
8 children by reinforcing some behaviors through rewards and encouragement, and  
9 discouraging other behaviors through punishment. Which behaviors parents model and  
10 encourage likely depends on their income, because the basic life conditions of higher and  
11 lower income parents differ in fundamental ways (Miller et al., 2015).  
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22 Research regarding the psychological consequences of income suggest a self-  
23 sufficiency hypothesis, positing that high income allows individuals to procure the goods  
24 and services that are required to meet personal needs, thereby reducing dependency and  
25 increasing separation from others (Côté et al., 2013; Piff, 2014; Vohs, Mead, & Goode,  
26 2006). Higher income parents own larger houses in safer neighborhoods, have more  
27 reliable transportation (e.g., vehicles) to shuttle children to various activities, and can pay  
28 for more activities, such as lessons, camps, or tutors (Evans, 2004; McLoyd, 1998).  
29 These conditions lead higher income parents to feel highly independent and perceive little  
30 need for others' assistance.  
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43 By contrast, lower income parents have smaller houses in more dangerous  
44 neighborhoods and rely more on time-consuming and unreliable public transportation.  
45 These conditions cause lower income parents to perceive that they struggle to meet their  
46 needs on their own, and increase their dependence on others for access to resources (e.g.,  
47 transportation, child care) to meet their basic needs. This dependence, in turn, increases  
48 closeness to others among lower income individuals.  
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3 In support of these self-sufficiency arguments, activating thoughts about money—  
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5 the most common form of income (Wang & Murnighan, 2014)—causes various  
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7 manifestations of independence and separation from others, including higher persistence  
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9 and reluctance to ask others for help when working on difficult tasks (Vohs et al., 2006),  
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11 less distress due to social rejection by others (Zhou, Vohs, & Baumeister, 2009), less  
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13 socializing with others (Mogilner, 2010), and reduced perceived purpose in life among  
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15 parents while interacting with children (Kushlev, Dunn, & Ashton-James, 2012).  
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20 Independence from others, in turn, might create tenuous relationships between  
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22 higher income parents and others—relationships that are characterized by more self-  
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24 serving behavior and less sensitivity to others' needs. Studies on the correlates of income,  
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26 some of which were conducted as part of multi-study investigations of the correlates of  
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28 the broader construct of social class, have shown that higher income individuals feel less  
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30 compassion and are less helpful to a stranger in need than lower income individuals (Côté  
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32 et al., 2013; Piff, Kraus, Côté, Cheng, & Keltner, 2010). Higher income—but not higher  
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34 education—is also associated with increased unethical behavior performed to benefit the  
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36 self (Dubois, Rucker, & Galinsky, 2015). A 35-year (1976-2010) societal-level analysis  
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38 revealed that adolescents in the United States reported lower concern for others during  
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40 times of economic prosperity than during times of economic deprivation (Park, Twenge,  
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42 & Greenfield, 2014). Priming money has similar effects: Money primes reduce helpful  
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44 behavior (Vohs et al., 2006) and increase unethical behavior performed to benefit the self  
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46 (Gino & Mogilner, 2014; Kouchaki et al., 2013).  
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53 These findings suggest that higher income parents model and reinforce behaviors  
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55 prioritizing the self over others. Integrating insights from social learning theory and the  
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3 self-sufficiency hypothesis suggests that through mimicry and reinforcement, higher  
4 income parents transmit more self-serving behavior to their children than lower income  
5 parents. Supporting this reasoning, in past research, four-year old children of higher  
6 parents. Supporting this reasoning, in past research, four-year old children of higher  
7 income parents donated fewer stickers to friends and fewer prize tokens to sick children  
8 than did children of poorer parents (Chen et al., 2013; Miller et al., 2015).  
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15 The behaviors inculcated by higher income parents are likely to increase  
16 children's narcissism, because behaviors prioritizing the self over others are likely to  
17 crystallize over time. Past studies conducted outside of organizations provide indirect  
18 support for our prediction that higher parental income is associated with narcissism. In  
19 these studies, feeling wealthy (Piff, 2014), self-identifying as rich (Cai et al., 2012), and  
20 having higher income (Foster et al., 2003) were associated with higher narcissism.  
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30 Importantly, narcissism established in youth tends to persist beyond childhood. A  
31 20-year longitudinal study using observer-based measures of narcissism found that  
32 narcissism identified in pre-school aged children tended to remain through adolescence  
33 and early adulthood (Carlson & Gjerde, 2009). This suggests that narcissistic tendencies  
34 learned early in life will persist and influence how people act as adults.  
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41 *Hypothesis 1: Parental income is positively related to future narcissism.*  
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### 43 **Narcissism and Leadership Behaviors**

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46 We propose that higher levels of narcissism are associated with less engagement  
47 in three broad facets of leadership behavior specified by the trait-behavioral model:  
48 relational-, task-, and change-oriented leadership behavior (DeRue et al. 2011). Meta-  
49 analytic research shows that engaging in these behaviors is associated with multiple  
50 dimensions of leader effectiveness (DeRue et al., 2011; Judge et al., 2004).  
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Research has identified both benefits and costs of narcissism. Narcissism has been linked to well-being (Sedikides, Rudich, Gregg, Kumashiro & Rusbult, 2004) as well as depression (Miller et al., 2007); successful (Wallace & Baumeister, 2002) as well as poor task performance (Campbell, Goodie, & Foster, 2004); and relationship success (Oltmanns, Friedman, Fiedler, & Turkheimer, 2004) as well as relationship failure (Campbell & Foster, 2002). These seemingly contradictory findings have been reconciled by considering the stage of relationships and frequency of interactions between narcissists and others (Back, Schmukle, & Egloff, 2010; Campbell & Campbell, 2009; Carlson & Lawless Desjardins, 2015; Paulhus, 1998; Robins & Beer, 2001). In particular, in the early stages of relationships—referred to as the “emerging zone”—or in relationships that feature infrequent interactions, the positive qualities of narcissists, such as their confidence, are especially salient. By contrast, in relationships that enter the “enduring zone”—characterized by ongoing interactions between narcissists and others—the negative attributes and behavioral tendencies of narcissists are more impactful.

In support for these arguments, in one study, narcissists were rated positively after a single meeting with new group members, and negatively after working with peers for seven weeks (Paulhus, 1998). In another study, narcissistic group members were initially popular because they seemed dominant and confident, but their popularity decreased sharply over time because they acted in increasingly arrogant and aggressive ways, and their peers became less tolerant of these behaviors (Leckelt, Küfner, Nestler, & Back, 2015). Concerning leadership, narcissists tend to garner status and emerge as leaders in the early stages of group work (Brunell, Gentry, Campbell, Hoffman, Kuhnert & DeMarree, 2008; Nevicka, De Hoogh, Van Vianen, Beersma, & McIlwain, 2011).

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3 Moreover, narcissistic leaders are rated positively on some dimensions by observers with  
4 whom they rarely or never interact. For instance, narcissistic U.S. Presidents are rated  
5 highly by historians on certain indices of effectiveness (Watts et al., 2013). However,  
6 when leaders interact frequently with their group members over long periods of time,  
7 higher narcissism is negatively associated with communication within the group and the  
8 group's performance (Nevicka, Ten Velden, De Hoogh & Van Vianen, 2011).  
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17 Drawing from past theory and findings, we posit that in organizational contexts  
18 where leaders and followers have enduring relationships, higher narcissism will relate to  
19 lower engagement in relational-, task-, and change-oriented leadership behaviors.  
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24 **Narcissism and relational-oriented behaviors.** Relational-oriented behaviors  
25 are actions in which leaders show concern for followers, look out for their welfare, build  
26 their respect, and encourage followers to focus on the welfare of the group (DeRue et al.,  
27 2011). In enduring relationships, grandiosity—a defining characteristic of narcissism—  
28 might cause narcissists to act in ways that are less interpersonally sensitive than non-  
29 narcissists, because when individuals believe that they are more important and worthy  
30 than others, they might over-claim credit and deny others the appreciation or recognition  
31 they deserve (Campbell, Reeder, Sedikides & Elliot, 2000; Farwell & Wohlwend-Lloyd,  
32 1998). Narcissists also tend to derogate others in order to rate their own traits more  
33 favorably (Park & Colvin, 2015). Impulsivity—another defining facet of narcissism—  
34 causes narcissists to be arrogant (Emmons, 1989) and aggressive (Hogan, Curphy &  
35 Hogan, 1994), and belittle others and exploit their weaknesses (Raskin & Terry, 1988;  
36 House & Howell, 1992).  
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3 In past studies, narcissists exhibited low levels of empathy (Morf & Rhodewalt,  
4 2001; Watson, Grisham, Trotter & Biderman, 1984) and low interest in establishing and  
5 maintaining warm interpersonal relationships (Emmons, 1989). These tendencies should  
6 lead narcissistic leaders to show little concern for their followers. Thus, narcissism should  
7 negatively relate to relational-oriented leadership behavior.  
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15 **Narcissism and task-oriented behaviors.** Task-oriented behaviors reflect the  
16 extent to which a leader defines and organizes the work and roles of members, models  
17 and asks that others follow standard rules and regulation, establishes well-defined  
18 patterns and channels of communication, and rewards meeting expectations (DeRue et  
19 al., 2011; Bass & Stogdill, 1990). The grandiosity and impulsivity that are hallmarks of  
20 narcissism are likely to stifle engagement in task-oriented leadership behaviors in  
21 enduring relationships between leaders and followers.  
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32 Impulsivity motivates narcissists' toward behaviors that provide temporary  
33 gratification of their desires for recognition, often at the cost of long-term success  
34 (Campbell, Bush, Brunell & Shelton, 2005; Raskin & Terry, 1988). Narcissists are less  
35 deliberative and conscientious (Vazire & Funder, 2006), which should impede their  
36 capacity to define and organize work and roles. Narcissistic leaders' impulsivity may  
37 cause them to deviate from established plans and standards, causing confusion among  
38 followers about what to do. Moreover, narcissists' grandiose sense of self, combined with  
39 their tendency to derogate others (Carlson & Lawless Desjardins, 2015; Park & Colvin,  
40 2015), should make it less likely that narcissistic leaders delegate tasks to others,  
41 potentially believing that they, and only they, are capable of accomplishing tasks and less  
42 likely that they consistently reward followers' good behaviors. These arguments suggest  
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3 that in enduring relationships where narcissists engage in more negative behavior  
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5 (Leckelt et al., 2015), they will be less conscientious in structuring tasks, more likely to  
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7 deviate from plans, and more focused on short-term motives for recognition than long-  
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9 term systems, resulting in less task-oriented leadership behavior.  
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13 In support of these arguments, prior work has found that the levels of narcissism  
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15 of CEOs of sports organizations were negatively associated with ratings of their  
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17 contingent-reward leadership, a set of behaviors encompassed by task-oriented leadership  
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19 behavior (Resick, Whitman, Weingarden, & Hiller, 2009). Narcissists' grandiose self-  
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21 importance and tendencies to derogate others might obfuscate rather than clarify for  
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23 followers what behaviors are valued and appropriate, inhibit communication within the  
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25 team, and limit the extent to which they delegate tasks to others. These arguments suggest  
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27 that leader narcissism will negatively relate to engaging in task-oriented behaviors.  
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32 **Narcissism and change-oriented behaviors.** Change-oriented leadership  
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34 behaviors are those that develop and communicate a compelling vision, and encourage  
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36 followers' innovative thinking and the sharing of different perspectives. This dimension  
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38 of behavior is conceptually based in transformational leadership research, particularly the  
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40 dimensions of intellectual stimulation and inspirational motivation (DeRue et al., 2011).  
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44 There are competing arguments concerning narcissistic leaders' abilities to  
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46 formulate and garner a compelling vision (Resick et al., 2009; Rosenthal & Pittinsky,  
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48 2006). On the one hand, narcissistic leaders might take more risks, helping them develop  
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50 creative ideas that make their vision compelling. On the other hand, narcissistic leaders'  
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52 focus on their own goals and priorities may cause them to articulate visions that omit the  
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54 goals of their organization and, thus, should fail to attract followers' commitment (Bass  
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3 & Steidlmeier, 1999; Popper, 2002; Resick et al., 2009). To wit, House and Howell  
4 (1992) argue that narcissism is a key attribute distinguishing leaders who use their power  
5 to benefit the self versus the collective, a pattern that is more effective in modern  
6 organizations. Empirical findings about the relation between narcissism and change-  
7 oriented behaviors are also mixed. Narcissistic U.S. Presidents received higher scores  
8 from historians on persuasiveness and agenda setting (Watts et al., 2013). But, in another  
9 study, ratings of transformational leadership behavior of narcissistic and non-narcissistic  
10 sport CEOs were comparable (Resick et al., 2009). In other work, narcissistic leaders  
11 produced visions that were bold but failed to consider the organization; these effects  
12 canceled each other out, so that leader narcissism was not correlated with charismatic  
13 leadership ratings (Galvin, Waldman, & Balthazard, 2010).  
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29 There are clearer theoretical arguments and findings suggesting that narcissistic  
30 leaders will encourage less innovative thinking and sharing of perspectives among group  
31 members, the other central aspects of change-oriented leadership behavior (DeRue et al.,  
32 2011). Narcissists perceive and seek to show that they are smarter and more capable than  
33 others (Wallace & Baumeister, 2002). Self-aggrandizing leader behaviors may evoke  
34 obedience in some, but can also stifle followers' self-initiative and reduce their desire to  
35 associate with the leader (House & Howell, 1992). Narcissists' combination of felt  
36 superiority and impulsivity can make them aggressive communicators (Hogan, Curphy &  
37 Hogan, 1994; Paulhus, 1998). Aggressive leadership behaviors discourage followers from  
38 speaking up with ideas (Burriss, Detert & Chiaburu, 2008). Narcissists are also resistant to  
39 and defensive about feedback (Barry, Chaplin & Grafeman, 2006; Martinez, Zeichner,  
40 Reidy, & Miller, 2008). Defensiveness has been negatively linked to seeking new ideas  
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3 or making improvement-oriented suggestions (Fast, Burriss & Bartel, 2014). In support of  
4  
5 these assertions, prior work suggests that narcissistic leaders inhibit information  
6  
7 exchange within groups, which in turn reduces group performance (Nevicka et al., 2011).  
8  
9  
10 These arguments suggest that in enduring leader-follower relationships, narcissistic  
11  
12 leaders are less likely to engage in collective-focused behaviors that encourage  
13  
14 innovative thinking or the sharing of improvement-oriented ideas, compared to leaders  
15  
16 with lower levels of narcissism.  
17  
18

19  
20 In sum, while there is mixed evidence of narcissists' abilities to create  
21  
22 intellectually stimulating visions, narcissism should make leaders less effective at  
23  
24 engaging in change-oriented behaviors because their visions are prone to being self-  
25  
26 serving and their interpersonal style is likely to discourage the sharing of ideas and  
27  
28 perspectives. We therefore expect:  
29  
30

31  
32 *Hypothesis 2: Narcissism is negatively related to leader engagement in a)*  
33 *relational-oriented, b) task-oriented, and c) change-oriented behaviors.*  
34

### 35 **Leadership Behaviors and Leader Effectiveness**

36  
37 We posit that relational-, task-, and change-oriented leadership behaviors relate to  
38  
39 multiple dimensions of effectiveness. Given that prior research has theoretically and  
40  
41 meta-analytically articulated and found these links (Brown & Treviño, 2006; DeRue et  
42  
43 al., 2011; Holtz & Harold, 2013; Judge, LePine & Rich, 2006; Judge et al., 2004; Judge  
44  
45 & Piccolo, 2004; Lambert et al., 2012; LePine, Erez & Johnson, 2002; Piccolo &  
46  
47 Colquitt, 2006), we briefly describe prior work and theoretically justify these  
48  
49 relationships below. We then describe how these relationships are part of serial  
50  
51 mediational chains involving parental income and narcissism.  
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3 We expect that engagement in the aforementioned leadership behaviors relates to  
4  
5 leaders' effectiveness as rated by their followers and two workgroup behaviors concerned  
6  
7 with followers' engagement in helpful and harmful behaviors in their units. We chose  
8  
9 these dimensions because several models construe leader effectiveness as multi-faceted  
10  
11 (DeRue et al., 2011; Yukl, 2011), and it was thus important to cover content across  
12  
13 different dimensions of effectiveness. Moreover, the third author, a 20+ year member of  
14  
15 the host organization, identified these indices as aligning with organizational objectives.  
16  
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20 **Leadership behaviors and follower-rated effectiveness.** Relational- and  
21  
22 change-oriented behaviors create healthy communication, good interpersonal dynamics,  
23  
24 an open environment for improvement-oriented ideas within a team, and early  
25  
26 identification of opportunities for improvement (e.g., Detert & Burris, 2007). As well,  
27  
28 clearly structuring tasks can direct effort, lead to more efficient functioning, and boost  
29  
30 performance outcomes (Keller, 2006). Thus, we predict:  
31  
32  
33

34 *Hypothesis 3: Leaders' engagement in a) relational-oriented, b) task-oriented,*  
35 *and c) change-oriented behavior is positively related to follower perceptions of*  
36 *leader effectiveness.*  
37

38 **Leader behaviors and work group behaviors.** Drawing from social learning  
39  
40 theory, we propose that leaders who engage in more relational-, task-, and change-  
41  
42 oriented behaviors will role model and create conditions that foster more citizenship and  
43  
44 less counterproductive behavior among followers. Citizenship behaviors are actions  
45  
46 concerned with helping others, going above-and-beyond, and taking more responsibilities  
47  
48 (Smith, Organ & Near, 1983). Relational-oriented behaviors develop supportive  
49  
50 relationships with subordinates which increases followers' satisfaction with the work and  
51  
52 builds strong reciprocal relationships, which are antecedents of citizenship behaviors  
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3 (Judge et al., 2004; Lambert et al., 2012; Lee & Allen, 2002). As well, change-oriented  
4  
5 leadership encourages extra-role behaviors like sharing ideas and helping the collective  
6  
7 (Detert & Burris, 2007; Piccolo & Colquitt, 2006). Finally, clearly structuring work is  
8  
9 helpful to followers, and taking the time to do so establishes a norm for helping others,  
10  
11 which is related to citizenship (Neubert et al., 2008; Schnake, Cochran & Dumler, 1995).  
12  
13  
14

15 Counterproductive behaviors are those that violate organizational norms and are  
16  
17 harmful to organizational interests (Bennett & Robinson, 2000; Dalal, 2005). When  
18  
19 leaders engage in relational-oriented behaviors that are just and supportive, followers'  
20  
21 motivation to harm the group or inhibit performance should be less, as counterproductive  
22  
23 behavior is often a response to perceived injustice or poor treatment (Dalal, 2005). By  
24  
25 engaging in task-oriented behaviors, leaders set clear guidelines about what is to be done  
26  
27 and how it should be accomplished (Bass & Stogdill, 1990), direct effort, and establish  
28  
29 rewards for staying on task and consequences for deviating. This sends clear signals that  
30  
31 behaviors hindering the group are unacceptable, and also establishes clear rewards for  
32  
33 desirable behaviors (Holtz & Harold, 2013; Neubert et al., 2008). Lastly, change-oriented  
34  
35 behaviors encourage followers to transcend their self-interest and act in the interest of the  
36  
37 collective (Burns, 1978). Behaviors that harm the group are inconsistent with that norm  
38  
39 (Brown & Treviño, 2006; Judge et al., 2006). We thus expect:  
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46 *Hypothesis 4: Leaders' engagement a) relational-oriented, b) task-*  
47 *oriented, and c) change-oriented behavior is positively related to*  
48 *citizenship behaviors within their units.*  
49

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51 *Hypothesis 5: Leader's engagement a) relational-oriented, b) task-*  
52 *oriented, and c) change-oriented behavior is negatively related to*  
53 *counterproductive behaviors within their units.*  
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## 55 **Mediated Effects of Parental Income on Leader Effectiveness**

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3 In the previous hypotheses, we argued that parental income relates to the extent  
4 to which leaders are narcissistic, levels of narcissism negatively relate to engagement in  
5 relational-, task, and change-oriented behaviors and, in turn, these behaviors are  
6 positively associated with multiple criteria of leadership effectiveness. Combining these  
7 hypotheses, we expect serial mediation such that negative associations between parental  
8 income and leadership effectiveness are transmitted via high levels of narcissism, and  
9 subsequently reduced engagement in the three dimensions of leadership behavior.  
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20 *Hypothesis 6: The relationship between parental income and perceived*  
21 *leader effectiveness is serially mediated by narcissism and engagement in*  
22 *a) relational-oriented, b) task-oriented, and c) change-oriented leadership*  
23 *behaviors.*  
24

25  
26 *Hypothesis 7: The relationship between parental income and followers'*  
27 *engagement in citizenship behaviors is serially mediated by narcissism*  
28 *and engagement in a) relational-oriented, b) task-oriented, and c) change-*  
29 *oriented leadership behaviors.*  
30

31  
32 *Hypothesis 8: The relationship between parental income and followers'*  
33 *engagement in counterproductive behaviors is serially mediated by*  
34 *narcissism and engagement in a) relational-oriented, b) task-oriented, and*  
35 *c) change-oriented leadership behaviors.*  
36

## 37 **METHODOLOGY**

### 38 **Sample and Design**

39  
40 We employed a multisource, cross-sectional survey design gathering data from  
41 leaders and followers who are active duty soldiers in the United States Army, and  
42 incorporated archival data. We contacted two alumni classes of United States Military  
43 Academy at West Point (USMA) who graduated three ("Class A") and five ("Class B")  
44 years prior to receiving this survey and have since been active-duty soldiers in the United  
45 States and abroad. At the time of data collection, these soldiers served as lieutenants  
46 ("Class A") and captains ("Class B").  
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4 This sample is well suited for exploring the hypothesized relationships for several  
5  
6 reasons. First, since our investigation focuses on parental income, it is important to hold  
7  
8 constant respondents' current income to guard against alternative explanations of results.  
9  
10 By selecting graduating classes from USMA who are actively serving, we control for  
11  
12 respondents' current income, as well as characteristics that correlate with current income,  
13  
14 such as level of education, rank or hierarchical position, occupational prestige,  
15  
16 organizational reputation, and age. Second, we were able to access archival information,  
17  
18 including parents' income and other demographic information that we control, from  
19  
20 applications to USMA. Because this archival information consisted of application  
21  
22 materials to a military academy, participants were likely highly motivated to provide  
23  
24 accurate information. Finally, virtually all soldiers who remain in the U.S. Army attain  
25  
26 levels of lieutenants and captains. Thus, soldiers with varying levels of narcissism are  
27  
28 equally likely to attain the positions of leadership that were the focus of this research,  
29  
30 guarding against alternative explanations of the findings based on the possibility that  
31  
32 soldiers with certain levels of narcissism are more likely to attain positions of leadership.  
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39 We sent an online survey to all members of Class A and Class B (n=1510), asking  
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41 them to complete a survey about themselves, and to nominate up to five followers to  
42  
43 complete a survey about their leadership. These participants nominated a total of 1241  
44  
45 followers to evaluate their leadership. We left the online survey active for twelve weeks  
46  
47 in order to maximize our response rate given that many of the USMA graduates and their  
48  
49 followers were actively deployed and did not have consistent internet access. We also  
50  
51 sent reminders every two weeks to those who had not responded to try to increase  
52  
53 participation. Given the cross-sectional nature of our research design, we took steps to  
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3 mitigate response bias of various types by gathering data from multiple sources (leader,  
4 followers, and archival data), randomizing the order of items within scales, varying  
5 response scale points, and separating the occurrence of the variables of interest within the  
6 surveys (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Spector, 2006).  
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13 579 (38% of those contacted) USMA alumni completed the self-assessment. This  
14 response rate is likely conservative because numerous soldiers invited to participate in  
15 this research might not have read the invitation due to some Army servers filtering out  
16 the invitation for security reasons (we received messages that our survey invitation was  
17 classified as “spam” for some soldiers), or due to lack of access to the internet when  
18 deployed. In addition, approximately 200 invited members had left the Army by the time  
19 we sent out the invitation. We found no significant differences on gender, race, parental  
20 income, and parental education (which we accessed via archival data) between  
21 respondents and non-respondents.  
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34 444 nominated followers (36%) responded. After matching leader and follower  
35 data with archival information, 229 of the 579 (40%) USMA alumni had complete data  
36 on all focal variables and control variables (i.e., they completed the self-evaluation,  
37 nominated and were evaluated by at least one follower [range: 1 to 5 follower  
38 evaluations;  $M=1.67$ ], and we were able to obtain complete controls from their archival  
39 data). In our final sample, 82% of leaders are Caucasian, and 83% are male. Among  
40 followers, 79% are Caucasian, and 85% are male.  
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## 50 **Measures**

51  
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53 **Parental income.** Parental income was obtained from USMA archival data.  
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55 Applicants to USMA complete the Cooperative Institutional Research Program (CIRP)  
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3 Survey, which asks respondents to provide their best estimate of their parents' income  
4  
5 from the year prior to their application. Parental income is tracked in 14 categories,  
6  
7 beginning with "Less than \$10,000," and ending with "\$250,000 or more." We converted  
8  
9 these response options to monetary amounts by using the midpoint of each category.  
10  
11 Following a strategy proposed by Parker and Fenwick (1983) we assigned the highest  
12  
13 category value by extrapolating from the midpoint of the second highest income bracket,  
14  
15 using frequencies for the second-highest and highest brackets, to assign a value to the  
16  
17 highest category. This made the highest values \$275,000.  
18  
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21

22       **Narcissism.** Narcissism was assessed using the 9-item ( $\alpha = .70$ ) narcissism  
23  
24 subscale from Jones and Paulhus' (2014) short dark triad measure, which is based on  
25  
26 prior versions of the Narcissistic Personality Inventory (NPI; Ames, Rose & Anderson,  
27  
28 2006; Raskin & Hall, 1979). Using a scale of 1 (strongly disagree) to 5 (strongly agree),  
29  
30 participants rated their level of agreement statements including "I know that I am special  
31  
32 because everyone keeps telling me so," "Many group activities tend to be dull without  
33  
34 me," and "I feel embarrassed if someone compliments me" (reverse scored).  
35  
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39       **Leadership behaviors.** Followers rated leaders' engagement in *relational-* and  
40  
41 *task-oriented leadership behaviors* using five items ( $\alpha = .78$ ) from the consideration  
42  
43 dimension and five items ( $\alpha = .80$ ) from the initiating structure dimension, respectively,  
44  
45 of the Leadership Behavior Development Questionnaire (LBDQ) XII (Stogdill, 1963)<sup>1</sup>.  
46  
47 Followers rated their level of agreement with statements concerning their leaders'  
48  
49  
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52  
53 <sup>1,2</sup> To ensure that our shortened versions of our leadership behavior measures were  
54  
55 faithful representations of the complete versions, we conducted separate validation  
56  
57 studies to ensure convergent validity of the items we chose. The data suggests the items  
58  
59 we employed demonstrate strong convergent validity with the traditional measures. Full  
60  
61 results with factor loadings available upon request.

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3 behaviors using a 1 (strongly disagree) to 7 (strongly agree) scale. Given our need for  
4 brief and relevant measures, we selected the most appropriate items for this context from  
5  
6 each of the two dimensions with input from the third author who has over 20 years of  
7  
8 experience in the U.S. Army. Example items reflecting relational-oriented behavior  
9  
10 include “Is friendly and approachable” and “Does the little things to make it pleasant to  
11  
12 be a member of the group” describe the leader. Example items reflecting task-oriented  
13  
14 behaviors include “Lets group members know what is expected of them” and  
15  
16  
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18  
19  
20 “Encourages the use of uniform procedures.”  
21

22 *Change-oriented behaviors* were assessed using four items from the Multifactor  
23  
24 Leadership Questionnaire 6S (MFQ-6S) (Bass & Avolio, 1992)<sup>2</sup>. We selected two of the  
25  
26 three items from the dimension assessing the intellectual stimulation (example item:  
27  
28 “Enables others to think about old problems in new ways”) and two of the three items  
29  
30 from the dimension capturing inspirational motivation (example item: “Provides  
31  
32 appealing images about what we can do”). In each case we eliminated one item that was  
33  
34 highly redundant with other items. The four items show high reliability ( $\alpha = .88$ ).  
35  
36  
37  
38 Followers rated their agreement with each statement using a 1 (strongly disagree) to 5  
39  
40 (strongly agree) scale.  
41  
42

#### 43 **Leader effectiveness.**

44  
45  
46 *Follower-rated leadership effectiveness.* Followers rated their leaders using four  
47  
48 items ( $\alpha = .95$ ) adapted from the General Self-Efficacy Scale (Chen, Gully & Eden, 2001)  
49  
50 and used in prior work to assess managerial effectiveness (Fast, Burris & Bartel, 2014).  
51  
52 Followers indicated their agreement with statements assessing their leaders’ performance  
53  
54 compared to other leaders with whom they had had experience. Ratings employed a 7-  
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3 point scale (1 = strongly disagree; 7 = strongly agree). Items include “Compared to  
4 others, this leader can do most tasks very well,” and “Even when things are tough, my  
5 leader can perform quite well.”  
6  
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8  
9

10 ***Work group behaviors.*** *Citizenship behaviors* were assessed using five items  
11 ( $\alpha=.86$ ) adapted from Smith, Organ and Near’s (1983) organizational citizenship  
12 behaviors scale, and used previously by Mayer and colleagues (2009). Followers rated  
13 the extent to which they perceive people in their group engaging various behaviors.  
14 Example statements include, “People in my group volunteer for things that are not  
15 required,” and “People in my group help others who have heavy workloads.” Ratings  
16 were done using a 5-point scale (1=not at all; 5= highly).  
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27 *Counterproductive behaviors* were assessed using six items ( $\alpha=.90$ ) from Bennett  
28 and Robinson’s (2000) 12-item counterproductive work behaviors scale. Six of the 12  
29 items were removed either because they were not relevant (e.g., “Falsified a receipt to get  
30 reimbursed for more money than was spent on business expenses”) or deemed too  
31 sensitive in this context (e.g., “Discussed confidential information with an unauthorized  
32 person”). Using a 1 (never) to 5 (all of the time) scale, participants rated the frequency  
33 with which they witnessed group members engage in each behavior. Example statements  
34 include, “Put little effort into their work,” and “Neglect to follow a leader’s instructions.”  
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#### 46 **Control variables.**

47  
48 ***Demographic characteristics (gender, ethnicity, and graduation year).*** We  
49 obtained gender, ethnicity, and class year from archival information maintained at West  
50 Point military academy. Each of these factors could influence or alternatively explain the  
51 degree to which parental income relates to narcissism. We controlled for gender (male=0,  
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3 female=1) because prior studies have found that it relates to narcissism (Carlson &  
4 Gjerde, 2009; Twenge et al., 2008). We controlled for ethnicity (caucasian = 0; other  
5 ethnicity = 1) because it tends to relate to income and narcissism (Foster, Campbell &  
6 Twenge, 2003). Graduation year simultaneously controls for respondents' current rank  
7 (graduates of Class A [coded 0] are lieutenants, and graduates of Class B [coded 1] are  
8 captains) and their age, thus keeping constant cohort effects that may be present with  
9 narcissism (Twenge et al., 2008) and differences resulting from rank or time in position.

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20 ***Background influences (parents' marital status, subjective perceptions of social***  
21 ***class background, parental education, parental occupation prestige).*** Parental income is  
22 related to many other factors that could influence the development of narcissism. We thus  
23 controlled for several other aspects of participants' background. We obtained a  
24 categorical measure of participants' *parents marital status* (0 =one or both parents  
25 deceased, or both alive but divorced or living apart; 1=both parents alive and living  
26 together) from USMA archival information. We include this control as a potential factor  
27 that could influence the amount of money that was available in one's household during  
28 childhood, and because children from single, compared to dual, parent backgrounds  
29 exhibit different interpersonal styles as adults (Brennan & Shraven, 1998).  
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44 Some have argued that the effects of income reflect a subjective, comparative  
45 phenomenon (Adler, Epel, Castellazzo, & Ickovics, 2000; Kraus, Tan, & Tannenbaum,  
46 2013). These arguments suggest that income itself is less important than how well off an  
47 individual perceives him or herself to be compared to others. To control for this potential  
48 influence on our results, we asked survey respondents to identify their *perceptions of*  
49 *social class background* by selecting the class in which they thought they belonged while  
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3 they were growing up. They could select, “lower class (5),” “lower-middle class (4),”  
4  
5 “middle class (3),” “upper-middle class (2),” or “upper class (1).” We reverse-scored this  
6  
7 variable such that higher values correspond to higher perceived social class background.  
8  
9

10 Education and occupational prestige are elements of social class that are  
11  
12 correlated with income (Adler & Snibbe, 2003; Christie & Barling, 2009). Thus, it is  
13  
14 important to control them to isolate the role of parental income. On our survey, focal  
15  
16 participants indicated the highest level of *education achieved by their father/guardian 1*  
17  
18 *and mother/guardian 2*. The options were 1 = less than high school, 2 = high school or  
19  
20 GED, 3 = some college, 4 = 2-year college degree, 5 = 4-year college degree, 6 =  
21  
22 master’s degree, 7 = doctoral degree or professional degree. Participants could also select  
23  
24 “I don’t know.” The parental education values were averaged. In instances where  
25  
26 participants marked “I don’t know” for a parent (n=5), we used the other parent’s score.  
27  
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31

32 To assess *parental occupational prestige*, participants were asked to type in what  
33  
34 their “Father/Guardian 1” and “Mother/Guardian 2” did for a living in two open-ended  
35  
36 text boxes. Participants were prompted to write in “I don’t know” or “none,” if  
37  
38 applicable. Two trained research assistants (one doctoral student and one undergraduate  
39  
40 student) who were blind to the hypotheses coded the occupations by assigning a US  
41  
42 Census Occupation Code. This list of codes is available from the US Census Bureau’s  
43  
44 web site (<http://www.census.gov/people/io/methodology/>). Assistants initially coded a  
45  
46 small subset of the data. They then met to compare and discuss discrepancies. They then  
47  
48 coded a second subset of the data, and were able to reliably produce the same codes at  
49  
50 that stage. They thus proceeded to code the remaining responses independently. By the  
51  
52 end of their independent coding, the inter-rater reliability for the job codes was high  
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( $\kappa=.86$ ). Working together, the coders then resolved any remaining disagreements. We used Duncan's socioeconomic index (SEI) as a measure of occupation prestige because this index is widely considered to be one of the most valid measures (Nakao & Treas, 1994). This scale ranges theoretically from 0 (lowest prestige) to 100 (highest prestige), but the actual lowest score is 17 (for "Sewing machine operators") and the actual highest score is 96.98 (for "Physicians and surgeons"). We used the crosswalk published by the Center for Demography and Ecology (Frederick, 2010) to match occupation codes to SEI scores and averaged father and mothers' occupational prestige scores.

## RESULTS

### Analysis Strategy

We test our hypotheses using confirmatory factor analysis (CFA) and structural equation modeling (SEM) with maximum likelihood estimation. SEM corrects for measurement error in multi-item measures and allows testing our hypothesized relationships simultaneously. We conducted all analyses using the lavaan (Latent Variable Analysis) R package (Rosseel, 2012; R Core Team, 2015).

We first sought to determine the extent to which followers' ratings of their leaders' behaviors and the dependent variables agreed, or were interchangeable. We followed Smith-Crowe and colleagues' (2014) recommendations for testing the significance of  $r_{wg}$  and average deviance ( $A_D$ ) scores, which capture the degree to which assessments of a single target are interchangeable. This procedure involves determining the average inter-item correlation ( $\rho$ ) among scale items, determining the skew of the response distribution for comparison, and adjusting significance values criteria based upon this information as well as the number of respondents and number of items

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3 comprising each scale. Table 1 displays this information for each construct and compares  
4 scores to recommended cutoffs. There was significant agreement among respondents on  
5  
6 both indices ( $r_{wg}$  and  $A_D$ ) for all dimensions. Given the significant agreement and  
7  
8 interchangeability of responses, we aggregated follower responses.  
9  
10

11  
12 --INSERT TABLE 1 APPROX. HERE--  
13

14  
15 Descriptive statistics for all study variables are presented in Table 2.  
16

17  
18 --INSERT TABLE 2 APPROX. HERE--  
19

### 20 **Confirmatory Factor Analysis**

21  
22 We performed a confirmatory factor analysis (CFA) to ensure that our items  
23 properly loaded onto the expected factors. We tested a seven-factor model including  
24 narcissism, three dimensions of leadership behavior, plus three criteria for leadership  
25 effectiveness, but excluding controls and the one-item measure of parental income. This  
26 model was a good fit of the data ( $\chi^2[644] = 991.07$ ; RMSEA = .05; TLI = .93; CFI = .93)  
27  
28 (Hu & Bentler, 1999). We compared this model to a five-factor alternative model  
29  
30 ( $\chi^2[655] = 1375.71$ ; RMSEA = .07; TLI = .85; CFI = .86) in which the three leadership  
31 behaviors were collapsed into a single latent variable. Combining the three separate  
32 leadership behaviors into a single factor significantly reduced fit ( $\chi^2_{diff}[11] = 384.64$ ,  
33  
34  $p < .00$ ), supporting the theoretical distinction between these behaviors (DeRue et al.,  
35  
36 2011). We also compared the seven-factor solution to a two-factor solution in which all  
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38 follower-rated variables were collapsed onto a single latent variable ( $\chi^2[664] = 2838.98$ ;  
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40 RMSEA = .12; TLI = .55; CFI = .58). This model was a poor fit of the data.  
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### 52 **Hypothesis Tests**

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3 We tested our structural model (see Figure 1) in which higher parental income  
4 relates to higher levels of narcissism, higher narcissism relates to lower engagement in  
5 the three facets of leadership behavior, and leader behaviors relate to the dependent  
6 variables. To aid interpretation of the results, we divided parental income values by  
7 100,000. We included controls by specifying pathways from each demographic and  
8 background variable to narcissism to control alternative explanations for the parental  
9 income to narcissism link. Testing this model reveals whether the associations described  
10 in Hypotheses 1-5 are supported. To ensure the robustness of our results, we tested our  
11 model excluding controls, and the results were unchanged. We further follow  
12 recommendations by Zhao, Lynch and Chen (2010) and Hayes (2013) who, while  
13 arguing that a significant indirect effect is the sole criteria for establishing mediation, also  
14 recommend interpreting indirect effects in relation to direct effects to determine the type  
15 of mediation that the data suggest. Thus, we also specify direct pathways from parental  
16 income to the criteria for leadership effectiveness. The theorized model presented in  
17 Figure 1 was a good fit of the data ( $\chi^2[943] = 1503.98$ ; RMSEA = .05; TLI = .87; CFI =  
18 .88), although the values of TLI and CFI were slightly below the traditional cutoff of .90.

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21 Hypothesis 1, that parental income is positively associated with adult narcissism,  
22 was supported ( $\beta = .79$ ,  $s.e. = .37$ ;  $p = .04$ ). Hypotheses 2a-c were also supported, suggesting  
23 that narcissism relates to less engagement in relational ( $\beta = -.75$ ,  $s.e. = .29$ ;  $p = .01$ ), task- ( $\beta$   
24  $= -.77$ ,  $s.e. = .28$   $p = .01$ ), and change-oriented ( $\beta = -.77$ ,  $s.e. = .29$ ;  $p = .01$ ) leadership  
25 behaviors. Regarding the relationships between leadership behaviors and ratings of  
26 leadership effectiveness, eight of nine hypotheses were supported. Supporting  
27 Hypotheses 3a-c, relational-oriented behaviors were significantly related to leader  
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3 effectiveness ( $\beta=.46$ ,  $s.e.=.08$ ;  $p<.01$ ), citizenship behaviors ( $\beta=.16$ ,  $s.e.=.06$ ;  $p=.01$ ), and  
4  
5 counterproductive behaviors ( $\beta=-.15$ ,  $s.e.=.06$ ;  $p=.02$ ). Task-related behaviors were  
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7 related to citizenship ( $\beta=.16$ ,  $s.e.=.06$ ;  $p=.01$ ) and counterproductive behavior ( $\beta=-.18$ ,  
8  
9  $s.e.=.08$ ;  $p=.01$ ) but not leader effectiveness ( $\beta=.10$ ,  $s.e.=.09$ ;  $p=.23$ ) Thus, hypotheses 4b  
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11 and c were supported, but hypothesis 4a was not. Lastly, supporting Hypotheses 5a-c,  
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13 change-oriented leader behaviors were related to leader effectiveness ( $\beta=.67$ ,  $s.e.=.08$ ;  
14  
15  $p<.01$ ), citizenship ( $\beta=.38$ ,  $s.e.=.06$ ;  $p<.01$ ) and counterproductive behavior ( $\beta=-.27$ ,  
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17  $s.e.=.06$ ;  $p<.01$ )

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22 --INSERT FIGURE 1 APPROX. HERE—  
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25 We tested the serial mediation hypotheses (Hypotheses 6-8) using the three-step  
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27 procedure advocated by Taylor, MacKinnon and Tein (2008), which recommends using  
28  
29 the SEM framework to simultaneously estimate the significance of indirect effects using  
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31 bias-corrected accelerated bootstrap confidence intervals of the product of coefficients for  
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33 each path in the mediational chain. We conducted the bootstrap using 1000 random  
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35 samples with replacement and interpret our results using 95% CIs. To establish  
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37 significance, the confidence intervals (CIs) must exclude zero. The indirect effects, direct  
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39 effects, and their CIs are presented in Table 3. We also present the total indirect effect—  
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41 the sum of all separate indirect effects (Preacher & Hayes, 2008)—of parental income on  
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43 each outcome.  
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49 Hypotheses 6a-c argued that the effects of parental income on perceived leader  
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51 effectiveness are serially mediated by narcissism and relational-, task- and change-  
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53 oriented behaviors. The 95% CI excludes zero for paths through relational- and change-  
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55 oriented behavior, but not through task-oriented behavior. Thus, Hypotheses 6a and 6c  
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3 are supported, but Hypothesis 6b is not. Hypotheses 7a-c posited that parental income  
4 exerts a serially mediated effect on citizenship behavior via narcissism and the leadership  
5 behaviors. The 95% CI excludes zero through change-oriented behavior, but not through  
6 relational- or task-oriented behavior. Thus, Hypothesis 7c is supported, but Hypotheses  
7 7a and b are not. Hypotheses 8a-c argue serially mediated effects of parental income via  
8 narcissism and the leadership behaviors on followers' counterproductive behaviors. The  
9 95% CI around the effect excludes zero via task- and change-oriented behavior, but not  
10 through relational-oriented behavior. We therefore conclude that Hypotheses 8b and 8c  
11 are supported, but Hypothesis 8a is not.

12  
13 Moreover, the total indirect effects of parental income on follower-rated  
14 effectiveness, citizenship behaviors, and counterproductive behaviors are significant,  
15 revealing that parental income influences future leadership outcomes indirectly through  
16 narcissism and its subsequent impact on leadership behaviors. In light of the non-  
17 significant direct effects from parental income to outcomes, we conclude that the findings  
18 suggest indirect-only mediation in each case where the confidence interval around the  
19 indirect effect excludes zero (Zhao et al., 2010).

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21 —INSERT TABLE 3 APPROX. HERE—

### 22 **Post-Hoc Analyses**

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24 We explored whether the association between parental income and narcissism is  
25 attenuated with increasing time away from the context of one's upbringing. Regressing  
26 narcissism on parental income, graduation year, and their interaction revealed that the  
27 narcissism levels of participants who had been in the Army for longer were not less  
28 predicted by parental income compared to their counterparts who had been in the Army  
29 for three fewer years ( $\beta=.35$ ,  $s.d.= 3.01$ ;  $p=.91$ ). Although this analysis does definitely  
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3 rule out fading effects of parental income over time because we only examined a three-  
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5 year difference, it is suggestive of the effects persisting despite the strong normative  
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7 pressures that likely operate in the Army.  
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10 In addition, to examine if narcissism exhibited a curvilinear relationship with  
11 leadership effectiveness as in some previous studies (Grijalva et al., 2015), we ran six  
12 regression analyses (one for each facet of leadership behavior or leadership effectiveness)  
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14 in which the criterion was regressed on narcissism and its quadratic term. In each  
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16 analysis, the quadratic term failed to reach significance (all  $t$ s < 1.52; all  $p$ s > .13).  
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## 22 DISCUSSION

23  
24 This investigation revealed that the income of one's parents is positively  
25 associated with later narcissism. Further, through higher levels of narcissism, parental  
26 income was indirectly associated with less engagement in behaviors that are traditionally  
27 viewed as central to the leadership role and, in turn, lower effectiveness across multiple  
28 dimensions. These findings suggest that there is a psychological "residue" (Miller et al.,  
29 2009) from growing up wealthier or poorer that relates to future leadership effectiveness  
30 via disposition and behaviors. In addition, the findings advance the idea that the macro  
31 social trend of increasing income disparity—through the relationship between income  
32 and narcissism—has implications for our understanding of management scholarship and  
33 practice.  
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### 48 Theoretical Implications

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50 Prior scholarship has studied multiple traits that influence leadership behavior and  
51 effectiveness (Eagly & Johnson, 1990; Judge, et al, 2004a; Judge, et al, 2004b), yet the  
52 role of the material conditions of one's upbringing has been largely absent. Here, we built  
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3 theory by connecting research on parental income and research on leadership for the first  
4 time. As such, we extend the study of leadership by showing how parental income—an  
5 often unseen, unstudied, and unaccounted for aspect of a leader—is associated with  
6 leadership outcomes. These conclusions are bolstered by unique features of our research  
7 context that naturally control explanations that are difficult to account for in other  
8 settings. In particular, pinpointing the role of parental income during childhood is  
9 challenging because it is often confounded with current income. Children of richer  
10 parents tend to later have higher income themselves. Here, we leveraged a context where  
11 members vary in their parental income, yet have comparable current income (because  
12 they are at the same rank) to rule out current income as an alternative explanation.  
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27 In addition, our investigation extends our understanding of how income shapes  
28 social behavior. Past research has found that income shapes behaviors in interpersonal  
29 relationships with strangers (Kraus & Keltner, 2009; Piff, et al, 2010) and spouses  
30 (Amato & Previti, 2003). Our findings extend this past work, suggesting that parental  
31 income indirectly shapes leaders' engagement behaviors that are fundamental to the  
32 leadership process.  
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40 Our findings also inform social learning approaches to leadership. Prior work has  
41 suggested that children learn leadership styles or implicit theories from their parents (e.g.,  
42 Hartman & Harris, 1992; Keller, 2003). Our study argues that an important and perhaps  
43 previously unseen way that parents influence their children, both during childhood and  
44 adulthood, is via material resources.  
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52 Finally, the findings extend the integrative trait-behavioral model of leadership  
53 effectiveness (DeRue et al., 2011). While this model argues that traits motivate behaviors  
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3 among leaders, it has yet to identify the origins of the traits that set the model in motion.  
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5 We find that one such element is parental income.  
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### 7 8 **Limitations and Future Directions** 9

10 Our investigation is the first to explore how the parental income of organization  
11 members in leadership roles relates to their future behavior after becoming members of  
12 organizations, and identifies several opportunities for future research. One such  
13 opportunity consists of exploring other pathways by which parental income relates to  
14 leadership. In particular, it is unlikely that we have uncovered the only influences that  
15 parental income may have on people's organizational outcomes when they are adults.  
16 While we uncovered negative indirect effects of parental income on three dimensions of  
17 leader effectiveness, parental income might be related to other behaviors or effectiveness  
18 criteria not examined in this study. Studying these additional pathways would explain  
19 why organization members with higher income parents might be perform some aspects of  
20 the leadership role effectively.  
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36 Relatedly, the trait-behavioral model utilized in this study focuses on broad  
37 dimensions of leadership behavior, but parental income could predict the degree to which  
38 leaders engage in other leadership behaviors. For instance, to the extent that a higher  
39 income background facilitates narcissism and a concomitant self-focus, we might also  
40 expect parental income to relate negatively to servant leadership, which prioritizes others'  
41 needs over one's own (Liden, Wayne, Zhao, & Henderson, 2008). Moreover, it is  
42 possible that leaders from higher income background have opportunities (e.g.,  
43 educational opportunities; Kornrich & Furstenberg, 2013) to develop a wider range of  
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3 competencies and have great technical abilities in some areas than lower-income  
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5 background leaders.  
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8         Given the cross-sectional nature of the survey, we cannot conclusively establish  
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10 causality in some of the reported relationships. In addition to the causal paths that we  
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12 argued, leaders whose followers engage in few helpful and more harmful behaviors and  
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14 perceive them to be ineffective might limit leaders' engagement in behaviors that are  
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16 traditionally viewed as central to the leadership role. Moreover, although we controlled  
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18 for certain factors linked to parental income (e.g., parental education, parental occupation  
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20 prestige, subjective perceptions of childhood social class) there are other factors that we  
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22 did not control that could provide alternative explanations. For instance, leaders with  
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24 different parental income may have attended different types of schools or had parents  
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26 with different personality traits, and these other variables might plausibly influence the  
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28 differences in narcissism and leadership behavior and effectiveness that we observed in  
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30 this study.  
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36         Also related to our survey design, we have same-source data ratings for leadership  
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38 behaviors and dimensions of effectiveness, which could inflate relationships between  
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40 measures. However, we are reassured by meta-analytic findings indicating that  
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42 relationships between leadership behaviors and numerous criteria are not weakened when  
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44 different-source rather than same-source data are used (see Judge et al., 2004).  
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48         Readers should consider that, as in most research on income, there were few  
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50 participants in the highest income bracket ( $n = 15$ ) and there may be no participants with  
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52 very high parental income (e.g., 1 million or more) in our sample. Though we found no  
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54 curvilinear association between income and narcissism ( $\beta=.24$ ;  $p=.16$ ), we cannot rule out  
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3 the possibility that leaders with very rich parents behave differently than leaders with  
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5 merely high parental income.  
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8           A final limitation of this work was that it was carried out in one organization  
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10 characterized by strong norms, and with leader-follower relationships that are ongoing, in  
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12 which parties are well-acquainted, and in which the negative effects of narcissism are  
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14 particularly felt. While strong contexts of this type can “facilitate theory building because  
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16 the dynamics being examined tend to be more visible than they might be in other  
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18 contexts” (Pratt, Rockmann & Kaufmann, 2006: 238), it is possible that in other  
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20 organizations, relationships may not proceed similarly. Specifically, in organizations with  
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22 less frequent interaction, relationships between leaders and followers may never develop  
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24 significantly past the “emerging zone,” and narcissism may evidence more positive  
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26 associations with leader behavior and effectiveness (Campbell & Campbell, 2009). As  
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28 well, in some organizations, narcissists may get ‘fast-tracked’ and therefore remain in  
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30 emerging zones while moving to higher positions. In these cases, there may be benefits  
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32 that accrue to narcissistic leaders. Similarly, the Army might be an organization in which  
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34 self-serving behaviors are seen as particularly negative. There may be organizations in  
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36 which self-oriented behaviors by leaders are viewed more favorably than in the Army.  
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### 43 **Practical Implications**

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45           Our findings document pathways through which high parental income may  
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47 negatively influence leaders effectiveness. Organizations might benefit from taking active  
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49 steps to curtail the entitlement and grandiosity that at least some leaders with wealthy  
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51 backgrounds are likely to exhibit. One possibility consists of eliciting compassion in  
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53 leaders. In past research, an experimental manipulation of compassion (a clip showing  
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3 children people in need) increased the helpful behavior of participants with higher  
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5 parental income to a level that was comparable to that of participants with lower parental  
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7 income (Piff, Kraus, Côté, Cheng, & Keltner, 2010). Similar interventions could be  
8  
9 designed to reduce the entitlement and grandiosity and, in turn, improve the effectiveness  
10  
11 of leaders with higher parental income. Alternatively, organizations could potentially  
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13 counteract narcissism by prioritizing and valuing humility (Owens et al., 2015).  
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18 Although our findings may suggest that leaders could be selected at least in part  
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20 on the basis of their parental income, we caution against this practice. In our view, the  
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22 practical implications of our findings concern attenuating the negative pathways we  
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24 identify, and do not suggest that employees with high parental income should not be  
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26 promoted to leadership positions, or that leaders with higher parental income are  
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28 incorrectly placed in their organizations. Rather, our findings suggest they may simply  
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30 lead differently and rely on different abilities, and the negative outcomes that accrue via  
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32 narcissism and subsequent behaviors should be mitigated. Indeed, it is entirely likely that  
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34 parental income exerts positive effects on outcomes other than those we studied.  
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### 38 **Conclusion**

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41 We found that early life experiences with income are related to levels of  
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43 narcissism and subsequent leadership behaviors and outcomes. These findings open the  
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45 door to future explorations of how societal trends like income disparity might influence  
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47 leader-follower relationships and other organizational dynamics. The findings also  
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49 suggest that macro trends like increasing income disparity can influence organizational  
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51 life by altering the traits and behaviors of those entering the workplace. After all, as  
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53 economic inequality rises, we may expect to see an increasing number of leaders who had  
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3 wealthy parents, are more narcissistic, and do not rely on classic leadership behaviors to  
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5 lead. We also may come to see less narcissistic leaders from lower income backgrounds  
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7 in a different light, recognizing they might engage in these behaviors to a greater extent  
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9 and that their style, if given the opportunity, may be well-suited to some contexts. Given  
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11 the increasing gap between the “haves” and the “have nots,” understanding the relational  
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13 and leadership tendencies of people from each income group is an important question for  
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15 the future of organizational—not to mention societal—scholarship.  
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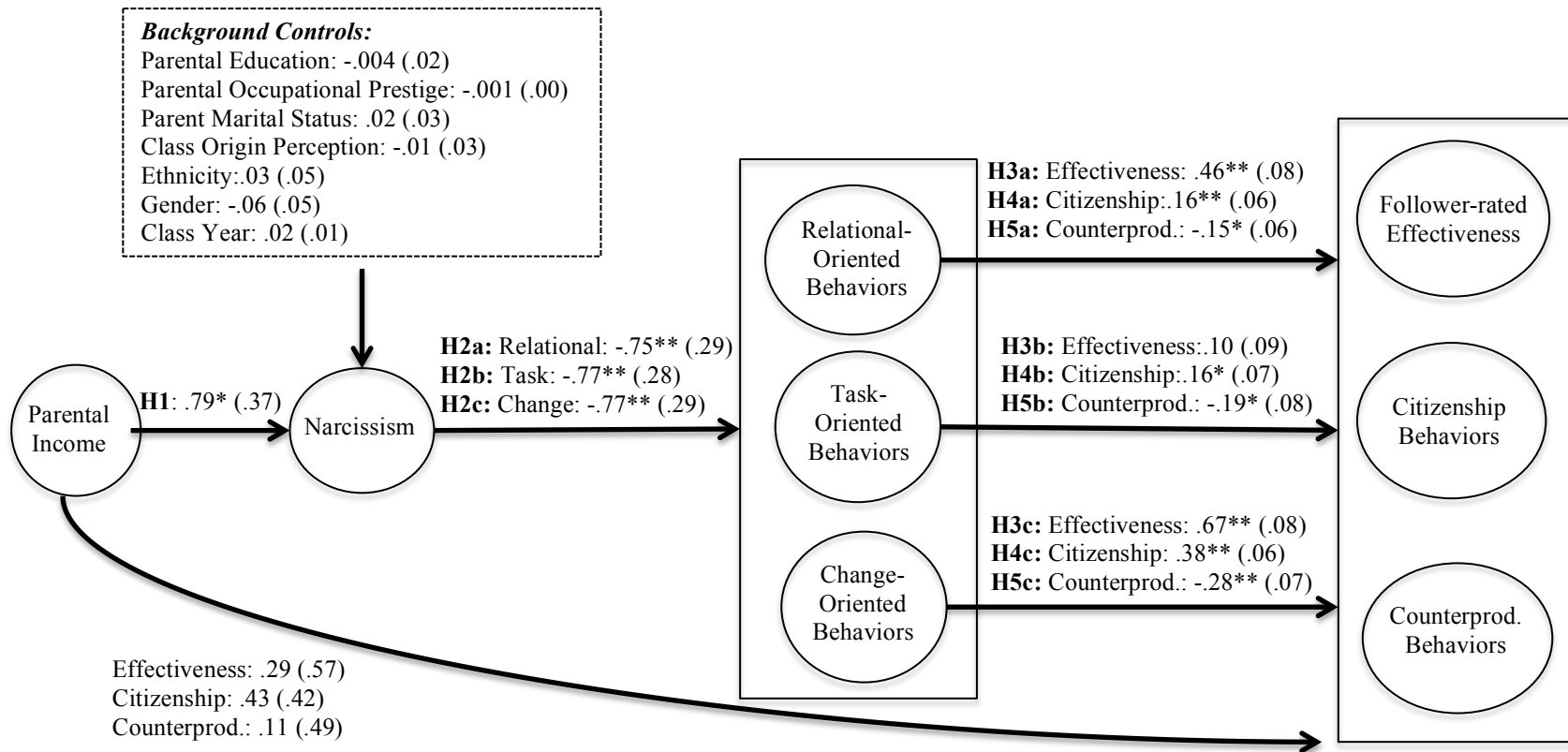
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Figure 1. Parental Income, Narcissism, Leadership Behaviors, and Outcomes



Note: Results shown with unstandardized coefficients. Standard deviations shown in parentheses.

\*\*p<.01

\* p<.05

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Table 1. Agreement statistics and recommended cutoff points

	# of Items	Scale point	Avg. Inter-Item Correlation (p)	Distribution Skew	Recommended Cutoff Values (Smith-Crowe et al., 2014)		Observed Values		
					rwg (Values should be above)	AD (Values should fall below)	rwg	AD	
<i>Leader Behaviors</i>									
Task-Oriented Behaviors	5	7	.45	Moderate Skew	.39	1.08	.77	.43	
Relational-Oriented Behaviors	5	7	.51	Heavy Skew	.44	.85	.71	.51	
Change-Oriented Behaviors	4*	7	.69	Moderate Skew	.41	1.07	.82	.34	
<i>Leadership Outcomes</i>									
Perceived Leader Effectiveness	4*	7	.82	Moderate Skew	.41	1.07	.80	.37	
Citizenship Behaviors	5	5	.56	Moderate Skew	.43	.66	.81	.35	
Counterproductive Behaviors	6*	5	.60	Moderate Skew	.58	.67	.76	.42	

\* Smith-Crowe et al. (2014) provide recommended cutoff values for 3-, 5-, and 10-item measures. For our 4- and 6-item scales, we used a conservative approach, comparing our agreement values to the next highest category for which cutoff recommendations are provided. The 4-item scales were compared to 5-item recommended cutoffs. The 6-item scale was compared to the recommended cutoffs for a 10-item scale.



Table 2. Descriptive statistics and correlations among study variables

Variable	M	s.d.	1	2	3	4	5	6	7	8	9
1. Parental Income	108.689.43	.54									
2. Narcissism	2.82	.51	.21**								
3. Relational-Oriented Behavior	6.12	.76	-.03	-.12 <sup>τ</sup>							
4. Task-Oriented Behavior	6.17	.60	-.00	-.14*	.56**						
5. Change-Oriented Behavior	4.13	.59	.04	-.11 <sup>τ</sup>	.48**	.55**					
6. Follower-Rated Effectiveness	6.32	.81	.04	-.08	.54**	.48**	.65**				
7. Citizenship Behaviors	4.15	.54	.07	-.05	.42**	.42**	.55**	.36**			
8. Counterprod. Behaviors	1.73	.55	-.00	.00	-.30**	-.37**	-.42**	-.39**	-.49**		
9. Parental Education	4.47	1.26	.41**	.02	-.09	-.07	-.11	-.06	-.05	.00	
10. Parental Occupational Prestige	62.09	15.71	.43**	.02	-.09	-.05	-.07	-.10	-.09	-.03	.63**
11. Parental Marital Status	.77	.42	.14*	.12 <sup>τ</sup>	.11	.05	.12	.06	.02	.05	.23**
12. Subjective Class Origin	2.95	.78	-.53**	-.07	.02	-.01	.00	.00	-.03	-.03	.43**
13. Ethnicity	.83	.34	.03	-.01	-.02	-.10	-.07	-.03	-.05	-.02	.19**
14. Gender	1.16	.37	.05	-.07	-.01	.05	-.01	-.03	.01	.10	-.05
15. Graduation Year	2009.76	1.48	.12 <sup>τ</sup>	.14*	-.03	-.06	.01	.05	.04	.01	.04

Note: Parental income appears untransformed above.

\*\*p<.01

\* p<.05

<sup>τ</sup> p<.10

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Table 2 (cont.) Descriptive statistics and correlations among study variables

Variable	M	s.d.	10	11	12	13	14
1 Parental Income	108689.43	0.54					
2 Narcissism	2.82	0.51					
3 Relational-Oriented Behavior	6.12	0.76					
4 Task-Oriented Behavior	6.17	0.6					
5 Change-Oriented Behavior	4.13	0.59					
6 Follower-Rated Effectiveness	6.32	0.81					
7 Citizenship Behaviors	4.15	0.54					
8 Counterprod. Behaviors	1.73	0.55					
9 Parental Education	4.47	1.26					
10 Parental Occupational Prestige	62.09	15.71					
11 Parental Marital Status	0.77	0.42	.19**				
12 Subjective Class Origin	2.95	0.78	.43**	.31**			
13 Ethnicity	0.83	0.34	.03	-.05	.10		
14 Gender	1.16	0.37	-.02	-.1	.05	.02	
15 Graduation Year	2009.76	1.48	.06	-.05	.07	.12 <sup>τ</sup>	.13 <sup>τ</sup>

Note: Parental income appears untransformed above.

\*\*p<.01  
 \* p<.05  
<sup>τ</sup> p<.10

Table 3. Mediated effects of parental income on leadership effectiveness

<i>Serially Mediated Pathways</i>		Indirect Effect [LLCI, ULICI]	Total Indirect Effect [LLCI, ULICI]	Direct Effect [LLCI, ULICI]
		-0.27		
H6: Parental Income to Effectiveness via	H6a: Narcissism & Relational-Oriented Behavior	<b>[-1.09, -.03]</b>		
	H6b: Narcissism & Task-Oriented Behavior	[-.59, .08]	<b>[-2.04, -.12]</b>	[-.73, 1.32]
	H6c: Narcissism & Change-Oriented Behavior	<b>[-1.35, -.10]</b>		
H7: Parental Income to Citizenship via	H7a: Narcissism & Relational-Oriented Behavior	[-.59, .00]		
	H7b: Narcissism & Task-Oriented Behavior	[-.49, .01]	<b>[-1.34, -.06]</b>	[-.26, 1.20]
	H7c: Narcissism & Change-Oriented Behavior	<b>[-.88, -.02]</b>		
H8: Parental Income to Counterproductive Behavior via	H8a: Narcissism & Relational-Oriented Behavior	[-.01, .50]		
	H8b: Narcissism & Task-Oriented Behavior	<b>[.004, .50]</b>	<b>[.01, 1.09]</b>	[-.81, 1.10]
	H8c: Narcissism & Change-Oriented Behavior	<b>[.01, .65]</b>		

Note: **Bold** indicates a significant effect. Unstandardized estimates shown. Total indirect effect equals the sum of specific indirect effects. LLCI=Lower level of 95% confidence interval; ULICI=Upper level of 95% confidence interval.

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