Article

Life History Strategies, Prestige, and Dominance: An Evolutionary Developmental View of Social Hierarchy

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Abstract

Although evidence documents the use of prestige and dominance for navigating group hierarchies, little is known about factors that explain people's orientation toward prestige versus dominance. The current research applied a life history perspective to assess the role life history strategies play in prestige and dominance. Four studies document associations between adopting a slow life history strategy and having an orientation toward prestige. We also saw some (less consistent) evidence that people's orientation toward prestige is rooted in exposure to predictable childhood environments, a known antecedent of slow life history strategies. Although we observed some evidence that exposure to unpredictable childhood environments was associated with dominance, there was little direct evidence that this relationship was explained by a fast life history strategy. Findings suggest that an orientation toward prestige is likely to be observed in people with a slow life history, who adopt a long-term time horizon for planning and decision-making.

Keywords

hierarchy, leadership, evolution, individual differences

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We have all known people who rise to the top of their group through hard work, putting in the time it takes to develop knowledge and skills that help the group succeed and reach its goals. At the same time, we have all also known people who rise to the top by being assertive and commanding and coercing others into getting what they want. In striving for high social rank, why do people gravitate toward one of these interpersonal strategies versus the other? Do people simply adopt whichever strategy they have had work in the past or that they have seen modeled by other influential group members? Or, instead, might the strategies people use to navigate social hierarchies be calibrated, perhaps even early in life, by adaptive considerations?

A burgeoning literature suggests two fundamental strategies people use to attain and maintain high social rank: prestige and dominance (Cheng & Tracy, 2014; Maner, 2017; Van Vugt & Smith, 2019). Prestige is based largely on the display of valuable skills and knowledge, whereas dominance is based largely on the use of coercion and intimidation. Although an impressive body of evidence documents differences between the two strategies, little is known about factors that might cause people to employ one strategy versus the other.

The current article sheds light on developmental factors that may underlie people's orientation toward prestige versus dominance. In doing so, we integrate two theoretical frameworks that heretofore have remained isolated from one another: the dual strategies theory of social hierarchy (Cheng et al., 2013; Henrich & Gil-White, 2001; Maner, 2017) and theories of adaptive developmental calibration such as life history theory (Belsky et al., 1991; Ellis, 2004; Figueredo et al., 2006). The former identifies prestige and dominance as key strategies for regulating one's place in social hierarchies. The latter provides a basis for understanding trajectories that characterize development across the lifespan. The intersection of the two approaches provides an integrative conceptual framework for hypothesizing relationships between overarching developmental trajectories and the strategies people use to influence others and rise through the ranks of their social groups.

Dual Strategies Theory of Social Hierarchy

Dominance and prestige both reflect patterns of motivation, cognition, and behavior aimed at helping people attain and maintain positions of high social rank (Cheng & Tracy,

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2014). Nevertheless, the two strategies diverge from one another in important ways (Maner, 2017).

Dominance is observed in many species, wherein individuals use agonistic behavior, intimidation, and the threat of physical aggression to rise through the ranks, while weaker and less assertive individuals typically have lower status. Although contemporary humans may not rely as much as other species do on the threat of physical violence, dominance in humans nevertheless involves acquiring high social rank through the use of fear, intimidation, and coercion (De Waal-Andrews et al., 2015; Ketterman & Maner, 2021). The use of dominance typically is seen in people high in narcissism, extroversion, aggressiveness, and agency, but low in agreeableness, morality, and cooperativeness (Cheng et al., 2010). Dominant individuals are not particularly well-liked (Cheng & Tracy, 2014; Ridgeway & Diekema, 1989), and dominant leaders often behave assertively and selfishly, prioritizing their own power over the well-being of the group (Case & Maner, 2014).

People adopting a prestige-oriented strategy, in contrast, tend to behave more prosocially and are generally well-liked (Cheng et al., 2013). Prestige typically is employed by people rated high in genuine self-esteem, conscientiousness, agency, cooperativeness, morality, intelligence, and social skills (Cheng et al., 2010). Prestige is thought to have been the primary means through which ancestral humans regulated status within social groups (Boehm, 1999; Henrich et al., 2015; Van Vugt, 2006). The "information goods" theory of prestige suggests that psychological adaptations helped people attend to and copy highly successful group members, particularly those who displayed skills, wisdom, and knowledge valued by the group (Chudek & Henrich, 2011; Henrich & Gil-White, 2001). Such adaptations would have been selected because copying successful group members would have facilitated the development of valued competencies and, in turn, increased one's social rank (and ultimately reproductive success). The successful individuals being followed, in turn, received respect, and admiration, and can be described as having attained high social rank via prestige (Price & Van Vugt, 2014). Prestige-based status hinges on the presence of group cooperation (von Rueden et al., 2019) and it serves as a principal means through which people display leadership in groups (Van Vugt, 2006; Van Vugt & Smith, 2019).

Prestige is socially malleable, as the skills and knowledge valued by others vary across groups (Benoit-Smullyan, 1944; Redhead et al., 2019). For example, the scholarly intellect may bring respect among scientists, whereas athletic ability may do so on a sports team. People who attain high social rank via prestige, therefore, must devote significant time toward identifying, learning about, and developing the skills, experience, and knowledge valued by their group. Prestige-oriented leaders also devote significant effort to building prosocial-affiliative relationships (Case et al., 2018), and prestige hinges on leveraging networks of social alliances (Redhead & von Rueden, 2021; von Rueden et al., 2019). Such alliances are crucial because they facilitate positive reputation and trust (Ames & Flynn, 2007; see also Redhead et al., 2019). Conversely, lacking such relationships can undermine the status of a person who might otherwise gain social rank through prestige.

Although an impressive body of evidence documents differences between prestige and dominance, we know little about factors that influence people's orientation toward using one strategy versus the other. To address this critical gap in the literature, we integrated theories of adaptive calibration.

Adaptive Calibration and Life History Theory

Life history theory suggests that, over the lifespan, organisms allocate their finite budget of bioenergetic resources strategically toward short-term versus long-term reproductive pursuits in a way that maximizes reproductive success (Del Giudice, 2009; Ellis & Del Giudice, 2019; Pepper & Nettle, 2017). Research from this perspective suggests that people display functionally coordinated sets of individual differences designed to either facilitate the expedient extraction of immediate rewards from uncertain environments with high extrinsic mortality risk (a "fast life history strategy") or invest more heavily in long-term somatic growth and development, thereby facilitating greater extraction of long-term rewards over time from safer and more certain environments (a "slow life history strategy") (Figueredo et al., 2005; Kaplan & Gangestad, 2005). For example, faster life history strategies are associated with an orientation toward impulsivity, aggression, and risk-taking (Figueredo & Jacobs, 2010; Griskevicius et al., 2013; Martinez et al., 2022). Slow life history strategies, in contrast, are marked by a longer time horizon when making decisions, allowing people to devote more enduring effort toward building a larger store of higher quality resources, investing in longer term planning, and delaying gratification by prioritizing long-term over short-term gains (Belsky et al., 2012; Ellis, 2004; Griskevicius et al., 2011; Simpson et al., 2012).

Life history theory also suggests that the manner in which people allocate their resources is calibrated early in life, based on environments encountered in childhood (Belsky et al., 1991; Ellis et al., 2017; Nettle et al., 2013). Some evidence suggests that life history strategies may be rooted particularly in the degree of unpredictability versus predictability encountered during childhood. Exposure to high levels of unpredictability in childhood, for example, is associated with earlier sexual development (Ellis, 2004; Xu et al., 2018) and an orientation toward greater impulsivity and risk-taking (Martinez et al., 2022; Simpson et al., 2012).

Life history theory originated to understand interspecies differences in developmental and reproductive trajectories (Stearns, 1992). There is debate regarding whether life

history theory can be used to predict functionally coherent constellations of human traits (i.e., strategies; see Nettle & Frankenhuis, 2020), and whether such traits reflect a fast–slow continuum (see Andre & Rousset, 2020). Nevertheless, despite divergence between original conceptualizations of life history trajectories and their current applications in humans, the notion of fast versus slow life history strategies serves as a useful heuristic for generating hypotheses about human behavior (Del Giudice, 2020). Moreover, life history models have been successful in predicting outcomes in domains as diverse as brain development (Figueredo et al., 2006), cognitive functioning (Mittal et al., 2015; Young et al., 2018), health (Maner et al., 2017), mating (Figueredo & Wolf, 2009), and morality (Maranges et al., 2021).

The Current Research

The current research integrates dual strategies theory with theories of adaptive calibration to generate predictions about developmental precursors of dominance and prestige. In doing so, we advance both literatures. Although the literature on life history trajectories has grown impressively in recent years, its implications for social hierarchy are yet to be examined empirically. In addition, while several studies have distinguished dominance from prestige and used individual differences in the two strategies to predict behavior, few studies have identified their developmental antecedents. The current studies help fill both of these critical gaps in the literature.

At the outset of the investigation, we had two main predictions. Our first prediction was that a slow life history strategy would be associated with an orientation toward prestige. For someone adopting a slow life history strategy, prestige may be perceived as an especially viable means of attaining high social rank. Core components of prestige include relationship-building and displaying knowledge and skills valued by the group. Prestige becomes increasingly effective with extended social interactions over time because group members experience opportunities to learn about one another's skills and successes and to perceive indirect cues to prestige such as the level of respect one receives from other group members (Redhead et al., 2019). Moreover, displaying skill typically takes time, as one must identify and emulate respected others, devote energy to gaining the experience necessary for being an expert in some domain, and then display that expertise to others. Prestige thus reflects a long-term strategy that requires significant investment and expenditure of energy and resources over time. Moreover, a willingness to expend resources in this way likely relies on a strong sense of control over one's outcomes: Presumably people would be hesitant to invest substantial time and energy into developing domains of knowledge and skill unless they thought the investment of resources would eventually pay dividends in the form of expertise and high social rank. Such investment in long-term pursuits would likely be perceived as a viable strategy by those with a slow life history strategy who tend to possess a strong sense of personal control and a long-term planning horizon that prioritizes long-term gains (Mittal & Griskevicius, 2014). Thus, we predicted that slow life history strategies would be associated with an orientation toward using prestige and, moreover, that this association might be rooted ultimately in exposure to predictable childhood environments.

Our second main prediction was that a fast life history strategy would be associated with an orientation toward dominance. People with a fast life history strategy tend to possess a relatively short time horizon for planning and decision-making and to prioritize short-term gains. Because prestige requires a long-term investment of energy and resources, prestige may not seem like a realistic short-term pathway toward gaining social rank. Instead, because dominance relies on assertiveness and coercion, both of which can be deployed relatively easily in short-term contexts, dominance may be perceived by fast strategists as a more effective strategy. Indeed, evidence suggests that dominance is particularly effective in short-term interactions and nascent groups and its effectiveness may wane over time in longer-term groups (Redhead et al., 2019). The use of dominance by fast strategists would be consistent with indirect evidence suggesting that those from relatively harsh and unpredictable backgrounds tend to use competitiveness and aggression to strive for social status (Figueredo & Jacobs, 2010; Wilson & Daly, 1985). Thus, we predicted that fast life history strategies would be associated with an orientation toward dominance and, moreover, that this association might be rooted in exposure to unpredictable childhood environments.

Across four studies, we tested hypothesized relationships among individual differences in life history strategies, exposure to predictable versus unpredictable childhood environments, and orientations toward prestige and dominance. To assess people's orientation toward dominance and prestige, we used measures that assessed both trait-level and state-level orientations. State-level measures focused on people's motivations to use dominance and prestige-based tactics in (laboratory-based) social groups. Studies 1a and 1b evaluated links among life history strategies, dominance, and prestige motivations in the context of anticipated laboratory group interactions. Study 2 evaluated relationships between exposure to predictable childhood environments and trait measures of life history strategy, dominance, and prestige. Study 3 (preregistered) brought together all components of the theoretical framework by measuring exposure to predictable versus unpredictable childhood environments, assessing individual differences in life history strategies, and evaluating people's dominance-based versus prestige-based motives in a laboratory status-striving context. We hypothesized that people's life history strategy would be associated with both trait and state measures of people's orientation toward dominance versus prestige. We also predicted that people's life history strategy might statistically mediate the relationship between exposure to predictable (versus unpredictable) childhood environments and their orientation toward dominance versus prestige.

Table 1. Measures of Dominance and Prestige Across Studies.

	Studies 1a/1b		Study 2	Study 3	
Construct	Trait measure	State measure	Trait measure	Trait measure	State measure
Dominance	From Cheng (2010)	Researcher-generated dominance motivation scale	From Cheng (2010)	From Cheng (2010)	Researcher-generated dominance motivation scale
Prestige	From Cheng (2010)	Researcher-generated prestige motivation scale	From Cheng (2010)	From Cheng (2010)	Researcher-generated prestige motivation scale

Note. Cheng (2010) refers to Cheng et al.'s (2010) Trait Dominance and Prestige scales.

Studies 1a and 1b

Studies 1a/1b were originally designed to assess hypotheses unrelated to the current article. However, because these studies included measures of life history strategies, dominance, and prestige, they afforded an opportunity to provide exploratory tests of the connections among those variables. The studies did not include a measure of childhood environments.

In addition to measuring trait levels of dominance and prestige, Studies 1a/1b included measures of participants' current motivational orientation toward using prestige and dominance in an anticipated laboratory group interaction (see Table 1 for a summary of dominance and prestige measures used in these studies). Dominance and prestige represent strategies used both to attain high social rank and to maintain that rank once it is achieved. Therefore, we assessed both status-striving and status-maintenance contexts. Study 1a comprised a status-striving context: Participants believed they would be competing over a manager role. Study 1b comprised a status-maintenance context: Participants believed they were assigned to a manager position. In both studies, participants provided responses reflecting their motivational orientation toward dominance and prestige in the context of the upcoming group interaction. We predicted that having a relatively slow life history strategy would be associated with a motivational orientation toward prestige, whereas having a relatively fast life history strategy would be associated with a motivational orientation toward dominance. We also expected that relatively fast versus slow life history strategies would be associated with trait measures of dominance and prestige, respectively.

Method

We report all manipulations, measures, and exclusions. All materials, data, and data analytic syntax are available at https://osf.io/cwdvn/?view_only=5c4624ac32f44999b413ecb474583e85.

Participants

Study 1a. Two-hundred fifteen undergraduates participated for course credit. Eleven participants were excluded following a priori exclusion criteria because they failed an attention check item embedded within self-report scales. Analyses included data from 204 participants. Demographic information for all participant samples is in supplemental materials. Because Studies 1a and 1b were designed as initial tests of a new hypothesis (unrelated to the current article), we did not conduct formal power analyses and instead relied on analyses suggesting the adequacy of 100 participants per experimental condition (Brysbaert, 2019). Sensitivity analysis (using G*Power, two-tailed .05 alpha level) indicated .80 power to detect correlations $\geq$.137.

Study 1b. One-hundred ninety-five undergraduates participated for course credit. As in Study 1a, data from 11 participants were excluded following a priori exclusion criteria because they failed an attention check item embedded in self-report measures. Analyses included data from 184 participants. Sensitivity analysis (two-tailed .05 alpha level) indicated .80 power to detect correlations $\geq$.144.

Procedure

Participants were recruited in groups of up to five. Participants were separated into individual rooms and told the study investigated personal experiences and group behavior. They were told they would write a short essay and participate in a group task. The essay was intended to test hypotheses unrelated to the current article. In one condition, participants wrote about a time in which they felt anger. In a second condition, participants wrote a neutral essay. Although the manipulation was ineffective, we controlled for experimental condition in all analyses. Targeted analyses of the manipulated variable are provided in supplemental materials.

In Study 1a (status-striving context), participants were told that one group member would serve as manager while the others would serve as workers. Thus, participants were in competition with other group members over who would serve as manager. In Study 1b (status-maintenance context), participants were told that, based on their questionnaire scores, they had been selected as managers and they wore a nametag with the word "manager" written on it.

Participants then responded to a set of questions in anticipation of the group task. (In reality, participants in both studies completed the rest of the study alone.) These questions provided measures of dominance- and prestige-related motivations (described subsequently). Participants then recorded

a short video introduction for their group (intended to test hypotheses unrelated to the current report; videos were not analyzed), completed individual difference measures (in Study 1a), and were debriefed.

Participants completed individual difference measures of life history strategies, dominance, and prestige. Although the measures were the same in the two studies, the placement of those measures varied. In Study 1a, participants completed the measures last, prior to being debriefed. In Study 1b, participants completed those measures first, prior to receiving other instructions.

Measures

Life history strategy. Life history strategy was measured with the Mini-K (Figueredo et al., 2006), a 20-item version of the 199-item Arizona Life History Battery. Sample items include "I don't give up until I solve my problems" and "I often make plans in advance" (1 = *strongly disagree*, 7 = *strongly agree*). Higher scores reflect a slower life history strategy (Study 1a: $\alpha = .73$; Study 1b: $\alpha = .73$).

Trait prestige and dominance. We included trait measures of dominance and prestige developed and validated by Cheng and colleagues (2010). Items assess the strategies people use in their social groups as well as the interpersonal dynamics that reflect those strategies. Eight items assess dominance (e.g., "I am willing to use aggressive tactics to get my way"; $\alpha = .87$). Nine items assess prestige (e.g., "My unique talents and abilities are recognized by others"; $\alpha = .84$; 1 = *Not at all*, 7 = *Very much*).

Dominance and prestige motivations. We constructed 14 items to measure state-level motivational orientations toward using dominance and prestige. Items were designed to assess core facets of dominance and prestige and were based on wording from Cheng's well-validated dominance-prestige scales (described above). For example, to assess dominance motivation, we adapted items from Cheng's scale (e.g., "Some people are afraid of me"; "I often try to get my own way regardless of what others may want") to capture participants' state-level motivational orientation toward using fear and coercion (e.g., "would it be okay with you if others were a little intimidated by you?"; "how much will you try to get others to follow your decisions?"). Similarly, to reflect prestige-based motives, we adapted items from Cheng's prestige scale (e.g., "I am considered an expert on some matters by others." "My unique talents and abilities are recognized by others.") to reflect motivations associated with the display of knowledge and expertise (e.g., "During the session how much will you highlight your expertise and intelligence?").

Four items assessed participants' motivational orientation toward dominance (During the session: "would it be okay with you if others were a little intimidated by you?"; "how much will you try to be assertive?"; "how much will you try to get others to follow your decisions?"; "how much would it bother you if people question your ideas and opinions?"). On three additional items, participants reported the extent to which their approach as manager would be characterized by being authoritative and assertive ("Being direct and assertive"; "Making sure others follow your lead"; and "Exercising control over decisions"). All items included a 7-point response scale. We averaged the seven dominance items to form a composite (Study 1a: $\alpha = .82$; Study 1b: $\alpha = .84$).

Seven items measured participants' state-level motivational orientation toward prestige. Four items assessed participants' motivational orientation toward prestige in the upcoming group task. Items assessed a desire to display knowledge and expertise, to promote cooperation, and to engage in relationship-building, each of which is a key component of prestige (During the session how much will you "highlight your expertise and intelligence?"; "listen carefully to the other group members?"; "try to make friends with your group members?"; "try to get people to cooperate?"). On three additional items, participants reported the extent to which each of the following would characterize their approach as manager: "Showing others how skilled you are"; "Listening to others"; "Making friends." We averaged the seven prestige items to form a composite (Study 1a: $\alpha = .74$; Study 1b: $\alpha = .68$).

General status-striving. Dominance and prestige motives share a desire for high social rank. Therefore, to show that any associations were specific to dominance or prestige motivations and not concomitant to participants' general preference for high social rank, we measured and controlled for general status-striving motivation with three additional items ("Would you prefer to be the manager or a worker"; "How much do you think you would enjoy being the manager?"; "How much do you think you would be a good manager?" $\alpha = .87$). The wording of these items was adjusted slightly in Study 1b to reflect the status-maintenance context ("How happy are you that you will be the manager rather than a worker"; "How much do you think you will enjoy being the manager?"; "How much do you think you will be a good manager?" $\alpha = .86$).

We also presented participants with two options for the group task, intended to assess their desire for absolute decision-making authority. No significant effects were found for these measures; measures and relevant analyses are presented in supplemental materials.

Results

Preliminary analyses. Analyses in this article were conducted using IBM SPSS v23. Descriptive data and correlations among measures are reported in Table 2.

Slow life history strategies displayed moderate-to-strong correlations with trait prestige in both studies. Fast life history strategies were weakly (although significantly) correlated with trait dominance in Study 1b, but uncorrelated with trait dominance in Study 1b.

Table 2. Descriptive Statistics and Correlations Among Study 1a and 1b Variables.

Variable	Study 1a *M* (*SD*)	Study 1b *M* (*SD*)	1	2	3	4	5	6
1. Life History Strategy	5.29 (0.62)	5.31 (0.62)	—	.14	.19**	−.05	.34***	.16*
2. State Dominance Motivation	4.11 (1.07)	4.44 (1.06)	.06	—	.43***	.46***	.39***	.57***
3. State Prestige Motivation	4.95 (0.85)	5.45 (0.70)	.30***	.38***	—	.24**	.34***	.36***
4. Trait Dominance	3.11 (0.85)	3.18 (1.03)	−.16*	.59***	.10	—	.30***	.56***
5. Trait Prestige	5.42 (0.74)	5.49 (0.70)	.42***	.25***	.47***	.08	—	.49***
6. General Status -Striving	4.50 (1.33)	4.57 (1.41)	−.03	.68***	.42***	.48***	.31***	—

Note. Study 1a correlations are below the diagonal; Study 1b correlations are above the diagonal.
*$p < .05$. **$p < .01$. ***$p < .001$.

Preliminary analyses assessed the validity of the state measures of prestige and dominance motivations by predicting each measure from individual differences in dominance and prestige, controlling for the state measure of general status-striving. Results are reported in supplemental materials. Speaking to the validity of those measures, the measure of state prestige motivation was more strongly associated with trait prestige than trait dominance, and the measure of state dominance motivation was more strongly associated with trait dominance than trait prestige. Both motives were associated with general status-striving motives.

Study 1a Results

Both studies included a manipulation of anger to test unrelated hypotheses. We control for experimental condition, although results do not differ substantively if the manipulation is omitted. An omnibus multivariate regression model including life history strategy (mini-K) and experimental condition to predict state measures of both dominance and prestige motivations confirmed that life history strategy was associated with the two dependent measures, $F(2, 200) = 9.69$, $p < .001$. Separate linear regression analyses, therefore, tested for relationships between life history strategy, dominance motivation, and prestige motivation. The first regression model included life history strategy and experimental condition as predictors of prestige motivation. Consistent with predictions, a slower life history strategy was associated with greater prestige motivation, $\beta = .29$, $p < .001$, partial $r = .29$, 95% confidence interval (CI): [.22, .58]. A robustness check included general status-striving and gender (this analysis excluded one transgender participant) as control variables. A slower life history strategy remained a significant predictor of prestige motivation (see Table 3). The only other significant predictor was participants' level of general status-striving.

The second regression model included life history strategy and experimental condition as predictors of dominance motivation. Contrary to predictions, life history strategy was unassociated with dominance motivation, $\beta = .05$, $p = .49$, partial $r = .05$, 95% CI [−.16, .32].

Study 1b Results

As in Study 1a, an omnibus multivariate regression model included life history strategy and experimental condition as predictors of the state measures of dominance and prestige motivation. This model confirmed that life history strategy was associated with those dependent measures, $F(2, 180) = 3.85$, $p = .02$. A subsequent regression model included life history strategy and experimental condition as predictors of prestige motivation. Replicating findings from Study 1a, a slower life history strategy was positively associated with prestige motivation, $\beta = .19$, $p < .01$, partial $r = .19$, 95% CI [.05, .38]. A robustness check included general status-striving and gender as control variables. The association between slow life history strategy and prestige motivation was reduced only slightly (see Table 3).

The second regression model included life history strategy and experimental condition as predictors of dominance motivation. We observed a trend between having a slow life history strategy and dominance motivation (contrary to predictions), $\beta = .14$, $p = .052$, partial $r = .14$, 95% CI [−.002, .50], but that relationship was eliminated when including general status-striving and gender as controls (see Table 3).

Discussion

Findings support the hypothesis that having a slow life history strategy is linked with an orientation toward prestige. A measure of life history strategy was associated with a trait measure of prestige and with a state measure of prestige motivation in the context of an upcoming group task. The latter finding held while controlling for general status-striving motives, which were related to both dominance and prestige motivations. Moreover, findings were replicated across two studies involving both status-striving and status-maintenance contexts. We saw less evidence for associations between life history strategy and dominance. Although having a fast life history strategy was associated with trait dominance in Study 1b, we saw no such correlation in Study 1a. Moreover, life history strategy was unassociated with state-level dominance motivations in both studies. Thus, while these initial studies provide consistent evidence for a link between slow life history strategies and prestige, they

Table 3. Regression Models for Studies 1a and 1b.

		B	95% CI	*t*	*p*	*partial r*	β	95% CI	*t*	*p*	*partial r*
Study	Predictor	DV = Prestige motivation					DV = Dominance motivation				
1a											
	Life history strat	.28	[.21, .55]	4.42	<.001	.30	.07	[−.05, .31]	1.39	.17	.10
	Status-Striving	.45	[.21, .37]	7.15	<.001	.46	.68	[.46, .63]	12.77	<.001	.68
	Gender	.10	[−.05, .44]	1.59	.11	.11	.007	[−.24, .28]	0.14	.89	.01
	Exp Cond	.04	[−.13, .28]	0.71	.48	.05	.05	[−.11, .33]	0.34	.34	.07
1b											
	Life history strat	.14	[−.01, .31]	1.88	.06	.14	.05	[−.14, .30]	0.74	.46	.06
	Status-Striving	.34	[.10, .24]	4.88	<.001	.34	.56	[.33, .52]	9.00	<.001	.56
	Gender	.008	[−.24, .27]	0.11	.91	.01	.04	[−.25, .45]	0.56	.57	.04
	Exp Cond	−.01	[−.21, .17]	−0.19	.85	−.01	−.02	[−.31, .21]	−0.35	.73	−.03

Note. Gender is coded 0 = man, 1 = women. Exp Cond refers to an anger manipulation testing hypotheses unrelated to this article. Life history strategy was measured with the Mini-K. Status-striving refers to a measure of general status-striving motives. CI = confidence interval; DV = dependent variable.

provide less evidence for links between life history strategies and dominance.

Study 2

Study 2 provided an opportunity to assess relationships between childhood predictability, life history strategies, and trait measures of prestige and dominance.

Method

Participants. One-hundred forty-six MTurk workers participated. Seven participants were excluded using a priori exclusion criteria because they failed at least one of two attention check items embedded in self-report measures. Although no formal power analysis was used, a sensitivity analysis (using G*Power based on a two-tailed .05 alpha level) indicated .80 power to detect correlations ≥.167, which is equivalent to the smallest individual difference correlation observed in Studies 1a/1b (between life history strategy and dominance).

Measures. The study included measures of childhood unpredictability, life history strategy, trait prestige, and trait dominance.

Childhood unpredictability. Participants completed five items from previous research (Mittal et al., 2015). Participants read these instructions: "Think back to your life when you were younger than 10. This time includes preschool, kindergarten, and the first few years of elementary school. Please answer the following questions with respect to this early period in your life." They then responded to the following 5 items: "When I was younger than 10. . ." (a) things were often chaotic in my house; (b) people often moved in and out of my house on a pretty random basis; (c) I had a hard time knowing what my parent(s) or other people in my house were going to say or do from day-to-day; (d) my parents changed jobs or lost a job; and (e) we moved from place to place quite a bit (1 = *strongly agree*, 7 = *strongly disagree*). Responses were averaged so that higher scores indexed greater unpredictability (α = .86, scores ranged from 1.0 to 7.0).

Life history strategy. Our primary measure of life history strategy was the K-SF-42 (Figueredo et al., 2017), a 42-item scale evaluating fast versus slow life history strategies across seven domains: insight planning and control (e.g., When faced with a bad situation, it helps to find a different way of looking at things), general altruism (e.g., I spend a great deal of time per month doing formal volunteer work at school or other youth-related institution), religiosity (e.g., Religion is important in my life), romantic partner attachment (e.g., I often want to merge completely with romantic partners, and this sometimes scares them away), parental relationship quality (e.g., How much time and attention did your biological mother give you when you needed it?), family social contact and support (e.g., How much have your relatives helped you get worries off your mind?), and friendship social contact and support (e.g., How much have your friends shown interest and concern for your well-being?). Items pertaining to participants' behavioral and psychological tendencies (e.g., When faced with a bad situation, I do what I can to change it for the better) were measured on a −3 (*Disagree Strongly*) to +3 (*Agree Strongly*) scale. Items pertaining to support received in social relationships (e.g., How much time and attention did your biological mother give you when you needed it?) were measured with a 0 (*Not at all*) to 3 (*A Lot*) scale. Subscales of the K-SF-42 are measured along different metrics, so composite life history strategy measures were standardized and averaged, with higher scores reflecting a slower life history strategy. The K-SF-42 has undergone extensive psychometric testing and has been shown to be valid and reliable across cultures (Figueredo et al., 2017). The K-SF-42 displayed good reliability (α = .88). Analyses

Table 4. Descriptive Statistics and Correlations Among Study 2 Variables.

Variable	*M* (*SD*)	1	2	3	4	5
1. Childhood unpredictability	2.50 (1.51)	—				
2. Life history strategy	0.00 (1.00)	−.26**	—			
3. Trait prestige	4.68 (0.98)	−.24**	.63***	—		
4. Trait dominance	3.15 (1.24)	.27**	.02	.04	—	
5. Childhood SES	0.00 (1.00)	−.11	.13	.09	.06	—

Note. SES = socioeconomic status.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 5. Study 2 Regression Models Predicting Trait Prestige and Dominance From Life History Strategy and Covariates.

	β	95% CI	*t*	*p*	*partial r*	β	95% CI	*t*	*P*	*partial r*
Predictor	DV = trait prestige					DV = trait dominance				
Life history strategy	.61	[.46, .73]	8.84	<.001	.61	.01	[−.19, .22]	0.14	.89	.01
Current income	.10	[−.01, .08]	1.41	.16	.12	.03	[−.06, .08]	0.29	.77	.03
Child SES	−.008	[−.14, .13]	−0.12	.91	−.01	.001	[−.20, .20]	0.01	.99	.001
Age	.03	[−.01, .02]	0.38	.70	.03	−.32	[−.06, −.02]	−3.88	<.001	−.32
Gender	.06	[−.15, .38]	0.88	.38	.08	−.22	[−.96, −.16]	−2.75	.007	−.23

Note. Gender is coded 0 = *man*, 1 = *women*. Life history strategy was measured with the K-SF-42. CI = confidence interval; SES = socioeconomic status.

focusing on individual subscale scores are reported in supplemental materials.[1]

Trait prestige and dominance. We used the same measures (Cheng et al., 2010) to assess individual differences in prestige and dominance that were used in Studies 1a/1b.

Socioeconomic status. Higher levels of unpredictability are typically observed in lower socioeconomic status (SES) communities. Therefore, to ensure that any associations with childhood predictability would be observed above childhood SES, secondary analyses included childhood SES as a covariate. Participants responded to four items from previous research (Griskevicius et al., 2011): My family usually had enough money for things when I was growing up; I grew up in a relatively wealthy neighborhood; I felt relatively wealthy compared with the other kids in my school (1 = *strongly agree* to 7 = *strongly disagree*); What was your yearly household income when you were growing up (response options: $15,000 or less; $15,001–$25,000; $25,001–$35,000; $35,001–$50,000; $50,001–$75,000; $75,001–$100,000; $100,001–$150,000; $150,000 or more). Items were standardized and averaged.

Results

Descriptive data and correlations are in Table 4. As expected, higher levels of childhood unpredictability were associated with a faster life history strategy. Correlations also confirmed that trait prestige was associated with high levels of predictability (low unpredictability) and a relatively slow life history strategy. Although trait dominance was positively associated with childhood unpredictability, we observed no relationship between dominance and life history strategy.

An omnibus multivariate regression model included the K-SF-42, current income, childhood SES, age, and gender as predictors of individual differences in dominance and prestige and confirmed that the K-SF-42 was significantly associated with the two dependent variables, $F(2, 132) = 38.89$, $p < .001$. We also conducted a series of robustness checks, evaluating the relationships among variables while controlling for participant age, gender, current income, and childhood SES. Life history strategy was robustly associated with prestige but not dominance (see Table 5 for full regression results).

In line with our overall developmental theory, we also evaluated a model in which a slow life history strategy statistically mediated the relationship between childhood unpredictability and trait prestige (Figure 1).

In a univariate regression model, childhood unpredictability was associated with a slow life history strategy ($b = -.17$, $t = -3.15$, $p = .002$, $spr = .26$), but when trait prestige was predicted from both childhood unpredictability and life history strategy, only life history strategy remained significant ($b = .60$, $t = 8.94$, $p < .001$, $spr = .59$). The association between childhood unpredictability and prestige was reduced to nonsignificance ($b = -.05$, $t = -1.16$, $p = .25$, $spr = .08$). A bootstrapping analysis with 5,000 resamples confirmed the presence of a significant indirect effect (99%CI: -0.22, -.011).

Discussion

Findings replicate the robust association between slow life history strategies and trait levels of prestige. Findings also

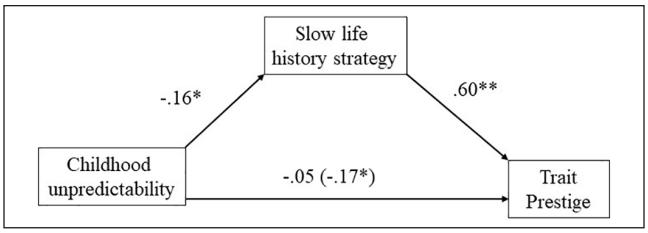

Figure 1. Study 2: Adopting a slow life history strategy statistically mediated the relationship between low levels of childhood unpredictability and high levels of prestige.
*$p < .05$. **$p < .01$.

provide support for a mediational model in which a slow life history strategy mediated the link between high levels of childhood predictability and trait levels of prestige. It should be noted, however, that strong causal conclusions cannot be generated from statistical tests of mediation alone, particularly given the cross-sectional design.

As in Studies 1a/1b, results were more equivocal for dominance. Although dominance was associated with exposure to relatively unpredictable childhood environments, we saw no direct evidence that this link could be explained by a fast life history strategy. Thus, findings were relatively more supportive of hypotheses for prestige than for dominance.

Study 3

Study 3 provided clearer and more complete tests of the investigation's core hypotheses. Each of the previous studies provided evidence for links between the adoption of a slow life history strategy and an orientation toward prestige. Study 2 also suggested links between those variables and exposure to predictable childhood environments. Yet, each of the previous studies suffered from limitations. Studies 1a/1b did not include a measure of childhood environment and thus cannot speak to the role such environments might play in people's orientation toward prestige. Those studies also included an unrelated priming manipulation that could have introduced unintended psychological factors. Study 2 relied exclusively on trait measures of dominance and prestige and thus cannot speak to whether people adopt an orientation toward prestige in realistic group contexts.

Study 3 strengthened this research by providing a highly powered and preregistered confirmatory test of the relationships among exposure to predictable childhood environments, life history strategies, prestige, and dominance within a realistic group context. We replicated the status-striving paradigm used in Study 1a, wherein participants believed they were vying for a manager position; we measured people's motivational orientation toward prestige and dominance in that context (we also omitted the affect priming manipulation). We measured exposure to predictable versus unpredictable childhood environments and included the longer and psychometrically stronger K-SF-42 scale to assess participants' life history strategy. Based on findings from the previous studies, we predicted that adopting a relatively slow life history strategy would be associated with having a greater motivational orientation toward prestige and that both might be rooted in exposure to highly predictable childhood environments. The study was preregistered using the Open Science Framework (https://osf.io/4btrp/?view_only=abf8255a21b64d90be4cd1beda545920).

Method

Participants. Based on the effect sizes observed for relationships in Study 2 (between childhood unpredictability and life history strategy; $r = .26$) and Study 1a (between life history strategy and state-level prestige motivation; $r = .29$), preregistered power analyses indicated that 151 participants were required to achieve .90 power to detect both relationships. Using a relatively conservative effect size estimate ($r = .25$) and setting power to .90 resulted in a required sample size of 157. Anticipating up to 10% data exclusion based on a priori criteria resulted in a projected sample size of 175 participants. We were able to recruit 173 undergraduates who participated for partial course credit. Because participants were recruited individually (rather than in a group as in the previous studies), and given the centrality of participants' anticipation of a real group task for our dependent measures, we included a funneled debriefing procedure to assess suspicion about the existence of a group task. Following preregistered exclusion criteria, seven participants were excluded because they voiced suspicion about the existence of a group task. All participants passed an attention check. Analyses included data from 166 participants.

Procedure. Participants arrived individually and were told they would take part in a task with two other group members in a lab across the hall. As in Study 1a, participants were told one of the group members would be selected as manager and the other two would be assigned to worker roles. To reduce suspicion, participants were told the study investigated newly formed groups whose members were unacquainted with one another prior to their interaction. As in Study 1a, participants then provided state measures of dominance and prestige motivations in the context of the group task (see below). After providing those measures, participants provided measures of trait dominance and prestige, life history strategy, childhood unpredictability, and childhood SES.

Measures

Life history strategy. As in Study 2, we used the K-SF-42 (Figueredo et al., 2017) to assess life history strategy. We generated a standardized z-score measure of life history strategy, with higher scores reflecting a slower life history strategy ($\alpha = .89$).

Table 6. Descriptive Statistics and Correlations Among Study 3 Variables.

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8
1. Childhood unpredictability	2.36 (1.36)	—							
2. Life history strategy	0.00 (1.00)	−.28***	—						
3. Dominance motivation	4.01 (.98)	−.003	.10	—					
4. Prestige motivation	5.07 (.76)	−.06	.24**	.33***	—				
5. Trait Dominance	3.16 (.98)	−.006	−.003	.53***	.08	—			
6. Trait Prestige	5.31 (.73)	.014	.41***	.40***	.35***	.24**	—		
7. General status-striving	4.36 (1.27)	.07	.19*	.59***	.29***	.45***	.42***	—	
8. Childhood SES	0.00 (1.00)	−.38***	.18*	−.01	−.06	.08	−.08	−.13	—

Note. SES = socioeconomic status.
*$p < .05$. **$p < .01$. ***$p < .001$.

Prestige and dominance motivations. The same 14 items used in Studies 1a/1b were again used. Seven items measured prestige motivation ($\alpha = .68$). Seven items measured dominance motivation ($\alpha = .79$).

General status striving. Study 3 included the same three items from Studies 1a/1b to measure general status-striving. These items were averaged to form a composite with higher scores indexing greater desire for high social rank ($\alpha = .86$).

Childhood unpredictability. To measure exposure to predictable versus unpredictable childhood environments, participants completed the same five items from Study 2 that were developed in prior research (Mittal et al., 2015). Responses used a 7-point scale, with higher scores indexing greater childhood unpredictability ($\alpha = .86$, scores range from 1.0 to 7.0).

Individual differences in dominance, prestige, and SES. As in the previous studies we used Cheng et al.'s (2010) Dominance-Prestige scale to assess trait dominance and prestige. As in Study 2 participants responded to four items from previous research (Griskevicius et al., 2011) to assess childhood SES.

Results

See Table 6 for descriptive data and correlations among variables. Replicating the relationship found in Study1a, having a slow life history strategy was associated with a motivational orientation toward prestige in the group task (as well as with trait levels of prestige). Also as predicted, having a relatively predictable childhood was associated with a slower life history strategy (although childhood predictability was unassociated with measures of prestige, contrary to predictions). Dominance was unassociated with childhood unpredictability and life history strategy.

An omnibus multivariate regression model assessed links between the K-SF-42 and the state measures of dominance and prestige motives, controlling for general status striving, gender, and childhood SES. The association between the K-SF-42 and the two dependent variables approached significance, $F(2, 158) = 2.54$, $p = .08$. We also used regression to assess life history strategy as a predictor of prestige and dominance motives separately, controlling for general status-striving, gender, and childhood SES. Slow life history strategies remained associated with prestige motivation but were unassociated with dominance motivation. Women showed higher prestige motivations than men did. General status-striving was the only significant predictor of dominance motivation (see Table 7).

As in Study 2, we evaluated a mediational model in which low levels of childhood unpredictability are associated with prestige motivation via adoption of a slow life history strategy. See Figure 2.

Childhood unpredictability negatively predicted slow life history strategy ($b = -.20$, $t = -3.66$, $p < .001$, $spr = -.28$). When prestige was regressed on both childhood unpredictability and life history strategy, life history strategy was significant ($b = .18$, $t = 3.05$, $p = .003$, $spr = .23$), while childhood unpredictability was not ($b = .01$, $t = .13$, $p = .90$, $spr = .01$). A bootstrapping analysis with 5,000 resamples confirmed the presence of a significant indirect effect (95%CI: -.07, -.01).

Discussion

Study 3 provided additional support for links between slow life history strategies and prestige. People with a slow life history strategy had both higher trait levels of prestige and displayed higher levels of prestige motivation in a group status-striving context. Findings were also consistent with a model in which slow life history strategies mediate the relationship between exposure to predictable childhood environments and high levels of prestige motivation, although this finding should be interpreted cautiously, given the cross-sectional design and the lack of direct connection between childhood environments and prestige in this study. As in the previous studies, we observed less evidence suggesting reliable connections between childhood environments, life history strategy, and dominance.

General Discussion

In differentiating between prestige and dominance, dual strategies theory provides a conceptual framework for

Table 7. Study 3 Regression Models Predicting Prestige and Dominance Motives From Life History Strategy and Covariates.

	β	95% CI	*t*	*p*	*partial r*	β	95% CI	*t*	*p*	*partial r*
Predictor	DV = Prestige Motivation					DV = Dominance Motivation				
Life history strategy	.17	[.01, .24]	2.15	.03	.17	−.01	[−.15, .12]	−0.21	.83	−.02
Status-Striving	.30	[.09, .27]	3.87	<.001	.29	.59	[.36, .57]	8.62	<.001	.56
Gender	.19	[.07, .63]	2.44	.02	.19	−.03	[−.39, .26]	−0.38	.70	−.03
Child SES	−.04	[−.14, .09]	−0.49	.63	−.04	.07	[−.07, .20]	0.97	.33	.08

Note. Gender is coded 0 = *man*, 1 = *women*. Life history strategy was measured with the K-SF-42. Status-striving refers to a measure of general status-striving motivation. CI = confidence interval; SES = socioeconomic status.

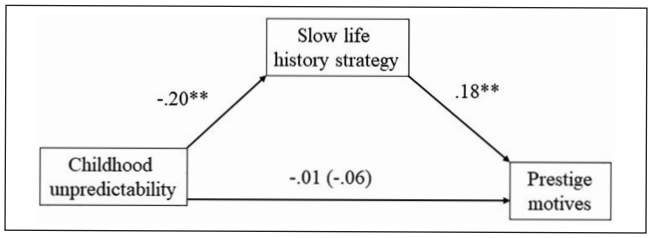

Figure 2. Study 3: Indirect effect of childhood predictability on prestige through the adoption of a slow life history strategy.
*$p < .05$. **$p < .01$.

understanding the strategies people use to navigate their way through, and sometimes to the top of, social hierarchies. The current research is some of the first to provide insight into factors that might underlie people's orientation toward using prestige versus dominance in social groups. Across four studies, we observed consistent connections between measures of slow life history strategies and both state and trait measures of prestige. The strongest and most robust association with prestige was observed for the "insight, planning, and control" facet of life history strategy (see supplemental materials). This is consistent with our theoretical framework, as that facet of life history strategy reflects people's long-term orientation and prioritization of long-term gains. Findings suggest that having an orientation toward prestige as a social rank strategy is associated with a broader developmental trajectory reflecting a slow life history strategy. Findings also suggest that this association could be rooted in exposure to relatively predictable childhood environments.

Implications of the Current Research

People adopting a slow life history strategy tend to display a developmental trajectory marked by a delay of gratification and long-term planning and investment of resources. Those traits are functionally consistent with prestige, as gaining social rank via prestige requires people to devote significant time and energy to developing valued skill and knowledge, and to cultivate a positive reputation that communicates that skill and knowledge to others (Henrich & Gil-White, 2001). Indeed, unlike dominance, which is especially effective in short-term interactions in nascent groups, prestige serves as a more durable strategy that underlies social rank over longer periods of time (Redhead et al., 2019; cf. McClanahan et al., 2022). A slow life history strategy is also characterized by a desire to build positive relationships and form alliances (Maranges et al., 2021; Wu et al., 2017; see also Figueredo et al., 2007). Such a desire fits well with conceptualizations of prestige: People who use prestige typically devote energy to maintaining prosocial alliances with group members (Case et al., 2018; Redhead & von Rueden, 2021; von Rueden et al., 2019). Thus, for people who adopt a slow life history strategy, prestige may serve as a highly viable and effective strategy for attaining and maintaining social rank.

Findings pertaining to dominance were less clear. We observed little evidence to suggest that dominance reflects a fast life history strategy, and only inconsistent evidence that dominance is associated with unpredictable childhood environments. One possible explanation is that a propensity to use dominance is explained by developmental variables (e.g., low SES; Wilson & Daly, 1985) other than those associated with life history strategies (see Hawley, 2014). Another possibility is that use of dominance is predicted more strongly by variables such as high testosterone or physical formidability (Lukaszewski et al., 2016; Petersen & Dawes, 2017). A third possibility is that any links between fast life history strategies and dominance are apparent primarily in current environments entailing high levels of stress or uncertainty (Young et al., 2018). Future work would benefit from leveraging developmental theories to identify factors linked with externalizing behaviors such as aggression and bullying, which may underlie orientations toward dominance in adulthood (Hawley, 2003). Because some social contexts might suppress the use of dominance (Boehm, 1999), research would also benefit from considering contexts in which dominance is rewarded or at least tolerated (McClanahan et al., 2022).

Although people may rely on one strategy more than the other, most people likely adopt a mixed strategy consisting of both prestige- and dominance-oriented elements (Hawley, 2014). Previous investigations suggest null (Cheng et al., 2013) or sometimes positive (Maner & Mead, 2010) correlations between the two strategies, suggesting that they are not

mutually exclusive. Indeed, we saw evidence that motivational orientations toward prestige and dominance in group contexts were positively correlated. There sometimes is considerable overlap in the behaviors associated with dominance and prestige (Redhead et al., 2021), and both were positively associated with a measure of general status-striving motives, consistent with the idea that both strategies share a focus on gaining social rank. Moreover, it is likely that people's use of dominance versus prestige varies across time and situations (Redhead et al., 2019), in line with demands posed by the current context. Considered in this light, a person's life history strategy may play a role in determining the balance people strike in their use of the two strategies.

Limitations and Future Directions

Limitations of the current studies provide valuable opportunities for future research. For example, the current research is limited by its reliance on self-report assessments of life history strategy. Moreover, there is debate about whether measures of life history speed such as the K-SF-42 reflect a single dimension (vs. multiple dimensions) and whether they effectively capture the speed of a person's overall life history trajectory (Richardson et al., 2021; however, see Figueredo et al., 2005, 2007). Future empirical work would benefit from including biometric indicators of life history strategies (e.g., age of menarche, age of first child, number of children), in addition to psychometric indicators. Psychometric indicators reveal psychological processes underlying life history strategies, while biometric indicators reveal life history outcomes, and the two types of measures complement one another. An additional limitation is that while we focused on the role of childhood unpredictability, we did not carefully differentiate between environmental unpredictability and harshness, both of which have been implicated in life history processes. Future work would benefit from disentangling those facets of child environments to determine which plays a stronger role in shaping people's use of dominance and prestige.

Another limitation pertains to our use of retrospective self-report measures of childhood unpredictability. Despite the normative use of such measures in this literature (e.g., Mittal et al., 2015; Young et al., 2018), future work would benefit from longitudinal datasets that include non-retrospective measures of unpredictability, as well as measures of objective childhood stressors, to assess prospectively early developmental factors that might underlie the use of prestige or dominance in adulthood. Life history theory helps generate predictions about specific developmental factors that might contribute to reliance on prestige and dominance. For example, growing up in a fatherless household has been linked to fast life history strategies in women (Belsky et al., 1991) and changes in residence or parent's employment have been linked to life history strategies in both sexes (Belsky et al., 2012; Martinez et al., 2022). More broadly, this literature highlights the crucial role of SES. Harsh and unpredictable childhood environments are especially common in low SES communities, and those factors may pave the way for the adoption of impulsivity and aggression in adulthood (Wilson & Daly, 1985). Future work would benefit from closely considering the interconnections between SES, life history strategies, and behavior within social hierarchies.

A strength of the current work is that we evaluated not only trait levels of dominance and prestige but also people's motivational orientation toward prestige and dominance within laboratory group contexts. Yet those studies are limited by the fact that the group contexts involved anticipated interactions among strangers rather than face-to-face interactions or ongoing interactions among extant groups. Future research would benefit from examining the use of prestige and dominance in extant groups, particularly as dominance and prestige may operate somewhat differently over the course of repeated interactions (Redhead et al., 2019). Because the current work primarily assessed motivational orientations toward dominance and prestige, future research would also benefit from using behavioral measures, such as the measurement of nonverbal behaviors (Witkower et al., 2020) or use of punishment (Chen et al., 2021).

Finally, the current work is limited by its lack of focus on genetic factors. Because personality traits (e.g., impulsivity, agreeableness) associated with life history strategies are partially heritable (Sherman et al., 1997), heritable factors could work in concert with developmental factors to shape people's behavior in social hierarchies. Future work would benefit from more carefully differentiating heritable factors from environmental factors and investigating how they might operate jointly to shape use of dominance and prestige.

Conclusion

By integrating life history theory and dual strategies theory, this research provides a conceptual framework for identifying developmental processes underlying the strategies people use to navigate social hierarchies. Findings suggest that prestige may reflect the life history strategy people use to manage bioenergetic tradeoffs over the life course. Developing the potential for prestige takes time. Consequently, people who tend to use a long-term time horizon for planning and decision-making—those adopting a slow life history strategy—may be especially inclined to devote the long-term resources needed to earn the respect and admiration of their group. The current studies are among the first to provide insight into developmental factors that could underlie people's orientation toward prestige versus dominance. At a broader theoretical level, the current research illustrates the value of considering the psychology of social hierarchy from evolutionary-developmental perspectives. Such perspectives are valuable for understanding group processes as well as the psychological mechanisms at play in leadership and social hierarchy.

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Supplemental Material

Supplemental material is available online with this article.

Note

1. We also included a secondary measure of life history strategy—the Mini-K (Figueredo et al., 2006), from Study 1. Results from the Mini-K closely mirrored those from the K-SF-42. Therefore, we report results from the more extensive K-SF-42.

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