

# The Expression of Achievement Motives in Interpersonal Problems

David E. Conroy,<sup>1</sup> Andrew J. Elliot,<sup>2</sup> and Aaron L. Pincus<sup>1</sup>

<sup>1</sup>The Pennsylvania State University

<sup>2</sup>University of Rochester

**ABSTRACT** Achievement motivation influences self-regulatory strategies, affective processes, and achievement outcomes, but little is known about how individual differences in achievement motivation influence interpersonal behavior. Different forms of achievement motivation are likely to influence interpersonal behavior because achievement motives are grounded in social emotions. Two studies were conducted to examine relations between achievement motives and dispositional interpersonal problems. These studies linked deficits in pride-based need for achievement with self-reported submission-related interpersonal problems, and shame-based fear of failure (FF) with both self- and peer-reported interpersonal distress. The achievement motives were largely not associated with individuals' perceptions of their peers' interpersonal problems. These findings reinforce propositions that FF represents the commingling of achievement and relational concerns and suggest new mechanisms by which achievement motives may influence productivity, social success, and well-being.

Interpersonal dysfunction has been the downfall of many talented individuals. Parents, managers, coaches, and friends often seek ways to help their children, employees, players, and peers balance the fundamental social challenges of getting along and getting ahead (Hogan, Jones, & Cheek, 1985). Situational demands for flexible and adaptive interpersonal behavior may be offset by individual differences in the motivational processes that energize, direct, and sustain competence pursuits. For example, individuals focused on and

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Correspondence concerning this article should be addressed to David E. Conroy, 266 Rec Hall, The Pennsylvania State University, University Park, PA 16802. E-mail: David-Conroy@psu.edu.

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oriented toward the possibility of success and its attendant positive self-evaluations (e.g., pride) may use different or more flexible interpersonal behaviors than those focused on and oriented away from the possibility of failure and its attendant negative self-evaluations (e.g., shame). Competence—broadly construed—is a theme that permeates many aspects of daily life, from mundane tasks like arriving at appointments on time to important tests of skills and abilities (Elliot, McGregor, & Thrash, 2002; Masten & Coatsworth, 1998). Achievement motivation may therefore play a role in determining how people interact as they pursue competence in their daily lives. Although individual differences are known to account for significant variance in social behavior (Kenny, Mohr, & Levesque, 2001), there is little known about the link between dispositional achievement motivation and interpersonal behavior. This unresolved question has significant ramifications for understanding factors that influence productivity, social success, and well-being.

### Achievement Motives

Dispositional achievement motives may influence individuals' interpersonal behavior. These motives represent "a strong affective association, characterized by an anticipatory goal reaction and based on past association of certain cues with pleasure or pain" (McClelland, 1958, p. 466). Achievement motives may be differentiated based on whether their aim involves pursuing competence or avoiding incompetence (Elliot & Dweck, 2005; McClelland, Atkinson, Clark, & Lowell, 1953). The approach-oriented achievement motive, *need for achievement* (nAch), involves anticipating pride upon succeeding (McClelland et al., 1953). The avoidance-oriented achievement motive, *fear of failure* (FF), is grounded in anticipating shame and humiliation upon failing (Atkinson, 1957; Birney, Burdick, & Teevan, 1969). The anticipatory affective states at the core of these motives energize and direct achievement behavior and may also influence interpersonal behavior.

This perspective complements and extends research focused on the affective consequences of achievement motivation (e.g., Pekrun, Elliot, & Maier, 2006) because these reintegrated affective states are viewed as an energizing and directing source of behavior during competence pursuits. Such embodied emotion can be sufficient to activate the functional responses associated with the core

emotion (Niedenthal, 2007). Emotions reflect individuals' adaptational struggles, and self-conscious emotions, such as pride and shame, are most relevant for social adaptation and social goals (Keltner & Buswell, 1997; Lazarus, 1991). Emotions are also characterized by specific action tendencies designed to meet perceived situational demands (Frijda, 2007; Lazarus, 1991). Understanding the social functions of the core affects for achievement motives may shed light on how these motives influence interpersonal behavior.

Pride involves the "enhancement of one's ego-identity by taking credit for a valued object or achievement" (Lazarus, 1991, p. 271). It leads to expressive behavior designed to draw attention to the *increased status* that accompanies success (Lazarus, 1991). A typical pride display involves both postural and gestural expressions (e.g., head tilted back, arms raised or hands placed on hips, visibly expanded posture with the back straight and shoulders back; Robins, Nofle, & Tracy, 2007; Shiota, Campos, & Keltner, 2003; Tracy & Robins, 2004). Interpersonal behavior could also be used to express pride and convey one's status. In achievement contexts, pride-based nAch could either promote dominant behaviors or reduce submissive behaviors in the service of expressing one's status, whereas deficiencies in nAch may be associated with reduced dominance or increased submission.

In contrast, shame involves a "failure to live up to an ego-ideal" (Lazarus, 1991, p. 241) that is exposed to a real or imagined audience and often signifies a *loss of status* (Gilbert & McGuire, 1998; M. Lewis & Sullivan, 2005). Consequently, individuals tend to withdraw, blush, and conceal or shrink themselves by collapsing their body, lowering their head, and averting their gaze when feeling shame (Darwin, 1872/1969; M. Lewis, 1992; Tomkins, 1963). These behaviors serve an appeasement function, and appeasement promotes submissive interpersonal behavior (Fournier, Moskowitz, & Zuroff, 2002; Gilbert, Pehl, & Allan, 1994; Keltner & Buswell, 1997).

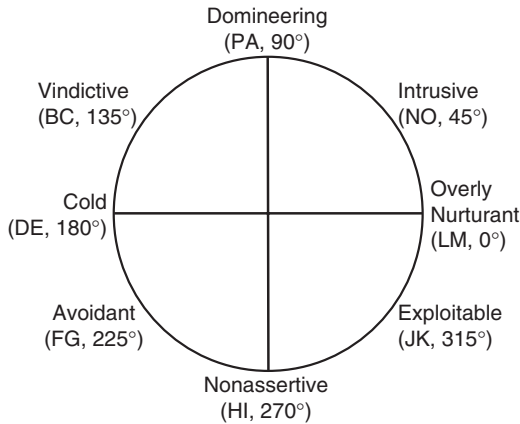
Clinicians have also remarked that shame can be bypassed and lead to emotions such as anger and rage (H. B. Lewis, 1971). Relations between shame and anger are evident across the life span (Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). This phenomenon of shame-rage would be unlikely to lead to appeasement behaviors but would rather lead individuals to attack others who threatened their status or perhaps even witnessed their social exposure. Thus, in achievement situations, high FF might

be expected to lead individuals to engage in either submissive or hostile–dominant behaviors. These hypotheses are consistent with the defensive scripts that Nathanson (1992) linked with shame (i.e., withdrawal, attacking others).

### Interpersonal Behavior

Interpersonal behavior can be described in terms of its communal (i.e., loving) and agentic (i.e., dominant) characteristics (Bakan, 1966; Horowitz, 2004; Wiggins, 1991). These dimensions correspond to the primary social goals of building relationships and establishing status as well as to prototypical gender roles in Western society (Wiggins, 1991, 1997). Agency and communion broadly represent the fundamental interpersonal metaconcepts of personality (Wiggins, 2003) and more specifically reflect the interpersonal content of personality traits (Ansell & Pincus, 2004; Wiggins & Trapnell, 1996). For example, the interpersonal traits of dominance and love reflect the agentic and communal content of Extraversion and Agreeableness traits from the five-factor model (FFM) of personality, without the affective, motivational, experiential, or attitudinal variance inherent in the broader FFM traits (e.g., positive emotionality; McCrae & Costa, 1989). Interpersonal behavior has been modeled with a two-dimensional circumplex that defines a wide range of actions in terms of their blends of love and dominance (Gurtman & Pincus, 2003; Leary, 1957; Wiggins, Steiger, & Gaelick, 1981). This model provides an elaborate description of interpersonal behavior because the universe of behaviors need not be forced into a simple factorial structure (Carson, 1996). As seen in Figure 1, a circumplex model can be divided into eight octants that identify interpersonal behaviors associated with varying blends of love (horizontal axis) and dominance (vertical axis). In this particular model the octants represent adaptive behaviors that people report having difficulty enacting or maladaptive behaviors that are exhibited too rigidly and extremely; these interpersonal problems are enduring tendencies that create distress (Alden, Wiggins, & Pincus, 1990; Horowitz, Rosenberg, Baer, Urëno, & Villaseñor, 1988).

From this perspective, individuals can have problems being too controlling (PA—Domineering), too angry (BC—Vindictive), too distant (DE—Cold), too anxious and withdrawn (FG—Avoidant), too submissive (HI—Nonassertive), too trusting, cooperative,



**Figure 1**

Circumplex model of interpersonal problems. The horizontal axis represents variability in love, whereas the vertical axis represents variability in dominance.

and vulnerable to exploitation (JK—Exploitable), too giving (LM—Overly Nurturant), or too extraverted and involved in others' affairs (NO—Intrusive). These individual differences in problems represent an accumulation of extreme and inflexible transactional behavior, which most likely accounts for the distress created by those problems (Horowitz & Vitkus, 1986; Horowitz et al., 1988; Kiesler, 1996; Leary, 1957). The circumplex structure of these problems provides a useful nomological net for studying how individual differences, such as those in achievement motivation, are expressed interpersonally (Gurtman, 1992; Pincus & Gurtman, 2006; Wiggins, 2003; Wiggins & Broughton, 1991).

### The Present Research

Establishing links between achievement motives and interpersonal problems would fill an important void in the literature regarding the social consequences of achievement motives. These links may help to explain factors that influence productivity (e.g., leadership styles, group dynamics, performance appraisals), social success (e.g., popularity, relational satisfaction), and well-being (e.g., coping styles, vulnerability to stress, satisfaction with life). Two studies were conducted to examine how dispositional achievement motives relate

to people's characteristic interpersonal problems. Study 1 aimed to establish links between these motives and problems based on self-reports. Study 2 sought to replicate the first study and extend it by assessing both self- and peer reports of interpersonal problems and examining both actor and partner effects between achievement motives and interpersonal problems. All analyses of interpersonal problems were conducted at both molar (i.e., profile) and fine-grained (i.e., octant) levels of analyses.

Need for achievement was expected to have weak links with interpersonal problems because it represents a relatively pure, appetitive competence motive rooted in relational security (Elliot & Reis, 2003). This relationally unencumbered approach to achievement should facilitate flexible interpersonal behavior that is responsive to varying situational demands (as opposed to internal working models of relationships that would engender predictable behavior in the service of self-protection and felt security). Thus, high levels of nAch were not expected to be associated with the extreme and rigid patterns of interpersonal behavior that characterize interpersonal problems. In contrast, deficiencies in pride-based nAch may be associated with interpersonal problems and specifically manifest through inhibited status expressions. We hypothesized that nAch would be negatively associated with submissive interpersonal problems (e.g., Avoidant, Nonassertive, Exploitable).

Fear of failure was expected to play a strong role in predicting interpersonal problems because it yokes achievement pursuits to potent relational consequences such as the perceived approval and affection of others (Conroy, 2003; Elliot & Reis, 2003; Elliot & Thrash, 2004). This shame-based, relationally encumbered approach to achievement should lead to self-protective behavior that provides a sense of security. Such security-driven behaviors can be driven by relatively stable internal working models of relationships (Blatt, Auerbach, & Levy, 1997; Bowlby, 1988; Main, Kaplan, & Cassidy, 1985) and may lead to rigid or extreme behaviors. The functional consequences of shame can shed light on the most likely interpersonal expressions of FF—specifically, they should involve problems that facilitate withdrawal or appeasement (e.g., Avoidant, Nonassertive, Exploitable) or rage against the source of anticipated shame (e.g., Vindictive).

In Study 2 we focused on links between achievement motives and interpersonal problems in established peer dyads. Dyadic processes

require attention to two types of influences: *partner effects* (i.e., how person A's characteristics influence person B's perception of person A) and *actor effects* (i.e., how person A's characteristics influence her or his perception of person B) (Kenny, Kashy, & Cook, 2006; Olsen & Kenny, 2006). Although these effects are typically differentiated in studies linking dyad members' self-reports, they are distinguished here to link self-reported motives with peer-reported interpersonal problems. Partner effects were expected to mirror findings from self-reported interpersonal problems. Specifically, nAch was expected to be negatively associated with peer-reported submissive problems, and FF was expected to be positively associated with peer-reported general interpersonal distress and specific problems linked with withdrawal/appeasement and rage. Actor effects in this study represent how motives bias peoples' perceptions of their peers' interpersonal problems. Achievement motives should orient individuals toward the self because of their basis in pride and shame. Thus, these motives were not expected to influence how people perceive others' behavior.

In both studies, gender was controlled due to evidence of gender-typed differences in the interpersonal behavior literature (Gurtman, Siefert, & Daly, 2006; Horowitz, Alden, Wiggins, & Pincus, 2000; Wiggins, 1991). Men were expected to self-report more Domineering and Vindictive Problems, whereas women were expected to self-report more Overly Nurturant and Exploitable problems. For the actor effects in Study 2, men were hypothesized to be more sensitive to others' dominance-related problems (e.g., Vindictive, Domineering, Intrusive), whereas women were hypothesized to be more sensitive to others' love-related problems (e.g., Intrusive, Overly Nurturant, Exploitable).

## STUDY 1

### Method

#### *Participants and Procedures*

Participants were 219 (148 women, 71 men) college students from a small private university in the United States with a mean age of 19.4 years ( $SD = 1.75$ ). Participants were predominantly Caucasian (71%) and Asian (16%); no other racial or ethnic background represented more than 5% of the sample. In exchange for extra credit, participants

completed a questionnaire packet assessing achievement motives and interpersonal problems.

### *Instruments*

Demographic characteristics were assessed using a brief questionnaire with items about participants' age, gender, and race/ethnicity.

*Achievement motives.* The nAch motive was assessed using the five-item Need Achievement Pride Scale (NAPS; Metzler & Conroy, 2007). This scale assesses an intrinsic, appetitive achievement motive based on the conception of anticipatory pride for succeeding in achievement pursuits (Atkinson, 1957; McClelland, 1958). Participants received the following instructions: "Read each statement below and think of how often you believe each is true for you in your competence pursuits (e.g., sports, school, extracurricular activities)." A sample item is "When my talent is about to be evaluated, I feel good knowing I have the opportunity to add to my self-worth." Participants rated their belief in each statement on a scale ranging from  $-2$  (*do not believe at all*) to  $0$  (*believe 50% of the time*) to  $+2$  (*believe 100% of the time*). In previous samples, this nAch score has demonstrated factorial validity and invariance across groups as well as acceptable internal consistency ( $\alpha = .87-.88$ ). Scores have exhibited *positive relations* with other measures of nAch (i.e., Work Family Orientation Questionnaire, Achievement scale of the Personality Research Form, Achievement Motives Grid), reward responsiveness, drive, self-esteem, happiness, state hope, dispositional pride, and approach-based achievement goals, *negative relations* with depression, and *null relations* with behavioral inhibition, positive and negative affectivity, fear of failure, and avoidance-based achievement goals (Metzler & Conroy, 2007). Of greatest relevance to this study is the finding that scores from this measure have positively predicted elevated state pride and not predicted state shame prior to an achievement task (Metzler & Conroy, 2007).

The FF motive was assessed using the five-item short form of the Performance Failure Appraisal Inventory (Conroy, Willow, & Metzler, 2002). Participants rated how strongly they believed that aversive, shame-related consequences of failing would occur on a scale ranging from  $-2$  (*do not believe at all*) to  $0$  (*believe 50% of the time*) to  $+2$  (*believe 100% of the time*). A sample item is "When I am failing, I worry about what others think about me." In previous samples, scores from this measure have exhibited strong factorial invariance over time and internal consistency estimates ranging from .72 to .88 (Conroy & Coatsworth, 2004; Conroy, Coatsworth, & Fifer, 2005; Conroy et al., 2002; Conroy, Metzler, & Hofer, 2003). Scores have also have demonstrated (a) *positive*

*relations* with trait performance anxiety and mastery-avoidance and performance-based achievement goals; (b) *negative relations* with state hope prior to a performance, self-esteem, and perceived competence; and (c) *null relations* with mastery-approach achievement goals and self-determination (Conroy et al., 2002, 2005). Scores from this short-form measure correlate strongly with scores from an independently administered long-form measure ( $r > .85$ ; Conroy et al., 2003).

*Interpersonal problems.* Interpersonal problems were assessed with the 64-item Inventory of Interpersonal Problems–Circumplex (IIP-C; Alden et al., 1990), an abbreviated version of the Inventory of Interpersonal Problems (Horowitz et al., 1988). Item content samples a range of interpersonal difficulties reported by nonpsychotic psychiatric outpatients in psychotherapy and reflects behaviors that individuals engage in too often (i.e., problematic behavioral excesses) or find difficult to exhibit (i.e., problematic behavioral inhibitions). Scores are provided for eight octants of interpersonal problems: Domineering (PA; “I try to control other people too much”), Vindictive (BC; “I want to get revenge against people too much”), Cold (DE; “It is hard for me to feel close to other people”), Avoidant (FG; “It is hard for me to ask other people to get together socially with me”), Nonassertive (HI; “It is hard for me to tell a person to stop bothering me”), Exploitable (JK; “I let other people take advantage of me too much”), Overly Nurturant (LM; “I try to please other people too much”), and Intrusive (NO; “It is hard for me to stay out of other people’s business”). As seen in Figure 1, these scores exist in a circumplex arrangement around axes representing the interpersonal dimensions of dominance and love. Scores can be reduced to resultant vectors representing overall levels of Dominance and Love in profiles. A third structural summary parameter for profiles known as Elevation can also be calculated. The Elevation of interpersonal problem profiles is an index of “general interpersonal distress, not confounded by biasing aspects of responding (i.e., social desirability)” (Tracey, Rounds, & Gurtman, 1996, p. 459). Scores from the IIP-C have exhibited a circumplex structure, internal consistency, convergence with other measures of interpersonal dispositions, and links with a variety of clinical outcomes including symptomatology and responses to psychotherapy (for a review, see Locke, 2006). The following instructions were given: “Listed below are a variety of common problems that people report in relating to other people. Please read each one and consider whether that problem has been a problem *for you* with respect to *any* significant person in your life. Then select the number that describes how distressing that problem has been.” Ratings were made on a scale ranging from A (*not at all*) to E (*extremely*).

*Socially desirable response biases.* The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991) was used to assess two dimensions of response biases: impression management (20 items; e.g., “I never cover up my mistakes”) and self-deception (20 items; e.g., “My first impressions of people usually turn out to be right”). Participants rated each item on a scale ranging from 1 (*not true*) to 7 (*very true*). After recoding reverse-scored items, responses were coded so that low and moderate responses (i.e., 1–5) received a 0 and extreme responses (i.e., 6–7) received a 1 (Paulhus, 1991). Scores from the BIDR have demonstrated factorial validity, acceptable internal consistency, 5-week test–retest reliability, and convergent validity with other measures of socially desirable responding (Paulhus, 1991).

### *Data Analysis*

A series of multiple regression models was estimated to examine the unique relations between achievement motives and interpersonal problems while controlling for participants' gender. The first set of models focused on predicting variability in three structural summary parameters for IIP-C profiles: Dominance, Love, and Elevation. These parameters provided a molar perspective on the nature of participants' interpersonal problem profiles. For a more fine-grained analysis of specific interpersonal problems, a second set of models was estimated to predict variability in the eight IIP-C octant scores. In each of these models, the predictors were entered in three steps: gender (Step 1), motives (i.e., nAch, FF; Step 2), and two-way interactions (i.e., Gender  $\times$  nAch, Gender  $\times$  FF, nAch  $\times$  FF; Step 3). Gender was entered as a dummy variable (0 = women, 1 = men), motive scores were centered, and interactions were calculated as the product of centered scores (Aiken & West, 1991). If the interaction terms in Step 3 did not significantly increase the model  $R^2$ , coefficients from Step 2 were reported. These analyses were then repeated to control for response biases by entering impression management and self-deception scores in the first step of each model.

## **Results and Discussion**

Table 1 presents descriptive statistics for the achievement motives, interpersonal problems, and social desirability measures. Internal consistency was acceptable for all scales. The achievement motives were not significantly correlated, nor were they associated with gender. A gender difference emerged in profile-level Dominance parameters such that men reported more Dominance-related interpersonal problems than women ( $r = .16, p < .05$ ). There were no gender differ-

**Table 1**  
Descriptive Statistics for Both Studies

	Study 1 (Self-Reports)			Study 2 (Self-Reports)			Study 2 (Peer Reports)		
	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$	<i>M</i>	<i>SD</i>	$\alpha$
Achievement									
Motives									
Need for Achievement	0.60	0.84	.90	0.85	0.79	.90	—	—	—
Fear of Failure	-0.01	0.89	.76	-0.25	0.71	.87	—	—	—
Structural Summary Parameters for IIP-C Profiles									
Dominance	0.02	0.68	—	0.06	0.55	—	0.11	0.59	—
Love	0.01	0.62	—	0.04	0.53	—	-0.15	0.47	—
Elevation	-0.02	0.72	—	-0.18	0.61	—	-0.48	0.60	—
IIP-C Octant Scores									
Domineering (PA)	6.25	4.78	.77	6.01	4.21	.72	5.23	4.65	.82
Vindictive (BC)	7.37	5.12	.78	6.60	4.18	.70	5.73	4.37	.78
Cold (DE)	7.50	5.63	.80	6.32	4.71	.76	6.33	4.83	.79
Avoidant (FG)	9.71	5.61	.80	8.62	5.50	.81	6.35	4.85	.79
Nonassertive (HI)	12.43	6.76	.86	10.77	6.21	.86	8.97	5.63	.85
Exploitable (JK)	11.77	6.40	.82	11.21	5.58	.80	8.99	5.07	.77
Overly Nurturant (LM)	11.79	6.11	.81	11.22	4.97	.74	8.30	4.74	.76
Intrusive (NO)	9.14	5.83	.78	8.19	4.60	.70	5.85	4.59	.74
Response Biases									
Impression Management	.30	.18	.65	—	—	—	—	—	—
Self-Deception	.25	.15	.74	—	—	—	—	—	—

*Note.* IIP-C = Inventory of Interpersonal Problems–Circumplex.

ences in profile-level Love or Elevation parameters. Men were more prone to self-deception than women ( $r = .17, p < .05$ ), but gender was not associated with impression management.

### *Motives and Gender as Predictors of Interpersonal Problems*

*Models of IIP-C profile characteristics.* Table 2 reports standardized coefficients from regressions of IIP-C scores on gender, achievement motives, and their interactions. The models of profile structural summary parameters revealed that these predictors accounted for significant variability in Dominance and Elevation ( $p < .05$ ) but not

**Table 2**  
**Study 1: Standardized Coefficients Linking Gender and Achievement Motives With Interpersonal Problems**

	Block 1		Block 2		Block 3		Model $R^2$	
	Gender	$\Delta R^2$	nAch	FF	Gender $\times$ nAch	Gender $\times$ FF		$\Delta R^2$
<b>Structural Summary Parameters for Self-Reported IIP-C Profiles</b>								
Dominance	.13*	.03*	.26*	-.04	.10**	—	—	.12**
Love	-.06	.01	-.02	.11	.01	—	—	.03
Elevation	.01	.00	-.10	.41**	.18**	—	—	.18**
<b>Self-Reported IIP-C Octant Scores</b>								
Domineering (PA)	.12	.01	.08	.17*	.03*	—	—	.05*
Vindictive (BC)	.09	.01	.02	.27**	.07**	—	—	.08**
Cold (DE)	-.00	.00	-.01	.21**	.05**	—	—	.05**
Avoidant (FG)	.00	.00	-.20**	.28**	.12**	—	—	.12**
Nonassertive (HI)	-.07	.01	-.25**	.30**	.15**	—	—	.17**
Exploitable (JK)	-.08	.01	-.17**	.30**	.12**	—	—	.14**
Overly Nurturant (LM)	-.04	.01	-.12	.33**	.12**	—	—	.13**
Intrusive (NO)	.05	.00	.14*	.31**	.12**	-.04	.00	.18**
								.03*

*Note.* nAch = Need for Achievement; FF = Fear of Failure; IIP-C = Inventory of Interpersonal Problems–Circumplex.  
 \*\* $p < .01$ , \* $p < .05$ .

in Love. Dominance-related problems were greater for men than women; Elevation scores were unrelated to gender. Dominance-related problems were positively predicted by nAch but not associated with FF. High levels of FF were associated with high Elevation scores, whereas nAch was unrelated to Elevation.

*Models of IIP-C octants.* All eight octant-level models were statistically significant, but the effect sizes were greatest for friendly and submissive interpersonal problems. Gender was not significantly associated with any IIP-C octant scores. Low levels of nAch were linked with being more Nonassertive, Avoidant, and Exploitable; high levels of nAch were linked with being more Intrusive. In contrast, high levels of FF were positively associated with all eight interpersonal problems. Relations between motives and problems did not differ as a function of participants' gender; however, a significant nAch  $\times$  FF interaction emerged for Intrusiveness. At low or moderate levels of nAch, FF did not significantly influence Intrusiveness, but at high levels of nAch, FF was associated with higher levels of Intrusiveness.

*Analyses controlling for social desirability.* In light of the relations documented between socially desirable response biases and the achievement motives, each multiple regression analysis was repeated with scores for impression management and self-deception included in the first step. In these models, gender marginally predicted Dominance-related problems; however, nAch and FF continued to positively predict profile-level Dominance and Elevation scores, respectively. In the octant-level models that controlled response biases, nAch remained negatively associated with Nonassertive and Avoidant problems but was not significantly associated with Exploitable problems. Thus, the nAch effect largely, but not completely, held up in the response bias analyses. Fear of failure remained significantly associated with six of eight interpersonal problem octant scores after controlling response biases (i.e., Vindictive, Avoidant, Nonassertive, Exploitable, Overly Nurturant, Intrusive), and marginally associated with problems in a seventh octant (i.e., Cold). These findings indicate that relations between FF and general interpersonal distress are not the product of response biases.

The achievement motives also interacted to predict profile-level Dominance and octant-level Intrusiveness when response biases were

controlled. Dominance-related problems increased as nAch increased, regardless of FF levels; however, slopes were largest when FF was low and smallest when FF was high. In the Intrusiveness model, FF did not significantly influence Intrusiveness at moderate or high levels of nAch, but at low levels of nAch, FF was associated with higher levels of Intrusiveness. No other interactions were significant.

### *Summary of Study 1 Findings*

This study documented links between achievement motives and interpersonal problem profiles. Need for achievement was associated with fewer reports of interpersonal problems in the submissive regions of the circumplex. This finding was consistent with our proposal that this appetitive motive facilitates flexible interpersonal behavior and that deficiencies in this pride-based disposition can inhibit agentic behavior and create problems with interpersonal submissiveness. Shame-based achievement motivation (i.e., FF) was associated with more variance in dispositional interpersonal problems than either gender or nAch. As expected, FF was associated with generalized interpersonal distress and was linked to each of the interpersonal problems. It was somewhat surprising that the associations with problems representing rage-related action tendencies (e.g., Vindictiveness) were not more pronounced. Nearly all of the links between achievement motives and interpersonal problems proved robust across impression management and self-deception response biases.

## **STUDY 2**

Study 2 was designed to examine the robustness of the Study 1 findings in an independent sample. This study also sought to determine whether achievement motives are associated with partner or actor effects in person perception, that is, whether motives influence how knowledgeable informants, such as peers, perceive a participant's behavior (partner effects) or how people perceive their peers' behavior (actor effects).

### **Method**

#### *Participants*

Participants were 172 (77 women, 85 men, 10 unspecified) college students from a large public university in the United States who received extra

credit for participating in the study with a friend who had known them for at least 4 months. Same-sex dyads (34% women, 34% men) were more common than opposite-sex dyads (32%),  $\chi^2(1) = 10.80, p < .01$ . The mean age of participants was 20.7 years ( $SD = 3.0$ ), and the sample was largely Caucasian (89%) and not Hispanic or Latino (95%).

### *Instruments*

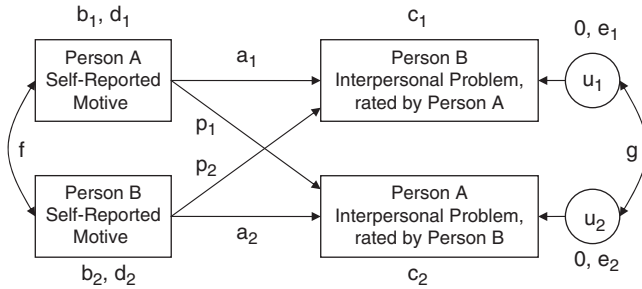
A demographics questionnaire was used to assess participants' age, race/ethnicity, and their length and level of acquaintance. Length of acquaintance was rated in months ("How long have you known the peer you will be rating today?"). Level of acquaintance ("How well do you feel that you know this peer?") was rated on a scale ranging from 1 (*not at all*) to 7 (*extremely well*).

*Achievement motives.* Need for achievement was assessed using the same instrument used in Study 1. Fear of failure was assessed using the 25-item long form of the Performance Failure Appraisal Inventory (Conroy et al., 2002). The response scale and instructions for this measure were identical to those used with the short form in Study 1, and the psychometric properties of its scores are superior with respect to both reliability and validity (e.g., Conroy, 2003; Conroy & Elliot, 2004; Conroy & Metzler, 2004; Conroy et al., 2002, 2003; Duley, Conroy, Morris, Wiley, & Janelle, 2005). Of greatest relevance to the present study is the finding that FF scores from this measure positively predict state shame and do not predict state pride prior to an achievement task (Metzler & Conroy, 2007).

*Interpersonal problems.* Participants rated their interpersonal problems and their perceptions of their peer's interpersonal problems using the IIP-C (Alden et al., 1990; Horowitz et al., 1988). The following instructions were given: "Listed below are a variety of common problems that people report in relating to other people. Please read each one and consider whether that problem has been a problem *for [you/your peer]* with respect to *any* significant person in [your/their] life. Then select the number that describes how distressing that problem has been." The rating scale was identical to that used in Study 1.

### *Procedure*

Dyads sat together while questionnaires were distributed and labeled with numeric codes linking dyad members. Participants were then asked to sit separately and were informed that their peer would not see their responses to the questionnaires. They then completed the demographics question-



**Figure 2**

Conceptual representation of actor-partner interdependence model for modeling interchangeable dyadic data. This model includes actor effects (paths  $\alpha_1$  &  $\alpha_2$ ), partner effects (paths  $\rho_1$  &  $\rho_2$ ), intraclass covariances (coefficients  $f$  &  $g$ ), predictor means (coefficients  $b_1$  &  $b_2$ ), predictor variances (coefficients  $d_1$  &  $d_2$ ), outcome means (coefficients  $c_1$  &  $c_2$ ), and uniqueness variances (coefficients  $e_1$  &  $e_2$ ).

Adapted from Olsen and Kenny (2006).

naire, rated their achievement motives and interpersonal problems, and rated their peer's interpersonal problems.

### Data Analyses

The dyads in this study were preexisting and self-selected. To account for dependencies inherent in such data and the fact that dyad members were indistinguishable, the data were modeled as interchangeable dyads using an actor-partner interdependence modeling approach (APIM; Kenny et al., 2006; Olsen & Kenny, 2006). The most basic form of this type of model is shown in Figure 2. Paths from one person's motive (predictor) to that same person's IIP-C score as rated by their partner (outcome) are considered *partner effects* (paths  $\rho_1$  and  $\rho_2$  in the figure). These paths represent how self-reports of participants' motives are associated with peer reports of participants' behavior. Paths from one person's motive to their rating of their partner's IIP-C score are considered *actor effects* (paths  $\alpha_1$  and  $\alpha_2$  in the figure). These paths represent how motives influence person perception. Because the members of the dyad are indistinguishable, the covariance between corresponding predictor variables and the covariance between residuals for corresponding outcomes can be interpreted as *intraclass covariances* (paths  $f$  and  $g$ ). Due to the indistinguishable nature of these dyads, this APIM model requires a series of equality constraints on the following sets of parameters: actor effects, partner effects, predictor means (parameters  $b_1$  and  $b_2$ ), predictor variances (parameters  $d_1$  and  $d_2$ ), outcome intercepts (parameters  $c_1$  and  $c_2$ ), and residual variances (parameters  $e_1$  and  $e_2$ ). Also, fit indices for each APIM were estimated based on

interdependence-adjusted null and saturated models (I-NUL and I-SAT, respectively; Kenny et al., 2006; Olsen & Kenny, 2006).

The first model focused on predicting the three structural summary parameters for IIP-C profiles (i.e., Dominance, Love, Elevation), and the next eight models elaborated on those findings by predicting the individual IIP-C octant scores. These models were estimated using AMOS 7.0 (Arbuckle, 2006) software for structural equation modeling. Model fit estimates were based on chi-square statistics from appropriate null and saturated models (Olsen & Kenny, 2006).

### Results and Discussion

The mean length of acquaintance for dyads was 34.4 months ( $SD = 44.5$ ), and the mean level of acquaintance was rated as 5.5 ( $SD = 1.2$ ). Descriptive statistics for achievement motives and self- and peer-reported IIP-C scale scores are shown in Table 1. All scales exhibited acceptable levels of internal consistency. The two achievement motives were not significantly correlated. Length, but not level, of acquaintance was positively associated with peer-reported Avoidant ( $r = .27, p < .05$ ) and Vindictive problems ( $r = .22, p < .01$ ). Neither length nor level of acquaintance was significantly associated with any other peer-reported octant scores or with Dominance, Love, or Elevation in peer-reported interpersonal problem profiles.

#### *Bivariate Relations With Interpersonal Problems*

*Gender and interpersonal problems.* Men described themselves as having more problems with Dominance ( $r = .20, p < .05$ ) and fewer problems with Love ( $r = -.24, p < .01$ ) than women. Gender was not associated with self-reported profile Elevation. Peers described men as having more problems with Dominance ( $r = .18, p < .05$ ) and fewer problems with Love ( $r = -.34, p < .01$ ). Peer reports of profile Elevation were not associated with the target's gender. Peers also described men as being more Vindictive ( $r = .17, p < .05$ ) and Cold ( $r = .24, p < .01$ ) and less Exploitable ( $r = -.22, p < .01$ ) and Overly Nurturant ( $r = -.16, p < .05$ ) than women. There were no other gender differences in peer-reported interpersonal problems.

#### *Correspondence of self- and peer-reported interpersonal problems.*

Correlations between the Dominance,  $r(172) = .48, p < .01$ , and Love,  $r(172) = .37, p < .01$ , vectors from self- and peer reports of in-

terpersonal problems were statistically significant; however, profile Elevation scores from self- and peer reports were not significantly correlated,  $r(172) = .12, p > .05$ . Self- and peer reports of corresponding interpersonal problems were significantly associated in seven of eight octants (Mdn  $r = .27$ , range:  $.20-.32, p < .01$ ; the exception was Overly Nurturant,  $r = .12$ ). These patterns are consistent with previous research of self-other agreement on interpersonal problems (Clifton, Turkheimer, & Oltmanns, 2005; Foltz, Morse, & Barber, 1999).

### *Self-Reported Interpersonal Problems*

Table 3 presents results from multiple regression models that sought to replicate the results of Study 1 by regressing self-reported interpersonal problems on participants' gender, achievement motives, and the two-way interactions between these predictor variables.

**Table 3**  
Study 2: Standardized Coefficients Linking Gender and Achievement Motives With Interpersonal Problems

	Block 1		Block 2			Model $R^2$
	Gender	$\Delta R^2$	nAch	FF	$\Delta R^2$	
Structural Summary Parameters for Self-Reported IIP-C Profiles						
Dominance	.17*	.04*	.19*	-.02	.03	.07**
Love	-.24**	.06**	-.02	-.05	.00	.06*
Elevation	.06	.00	-.12	.41**	.17**	.17**
Self-Reported IIP-C Octant Scores						
Domineering (PA)	.10	.01	.01	.28*	.08**	.08**
Vindictive (BC)	.19*	.03*	-.01	.24**	.06**	.08**
Cold (DE)	.24**	.04*	-.01	.33**	.11**	.15**
Avoidant (FG)	.08	.00	-.17*	.35**	.14**	.14**
Nonassertive (HI)	-.04	.01	-.23**	.26**	.11**	.12**
Exploitable (JK)	-.18*	.05**	-.14	.23**	.07**	.12**
Overly Nurturant (LM)	-.08	.01	-.05	.20*	.04*	.06*
Intrusive (NO)	.07	.00	-.06	.32**	.09**	.14**

*Note.* nAch = Need for Achievement; FF = Fear of Failure; IIP-C = Inventory of Interpersonal Problems–Circumplex.

\*\* $p < .01$ , \* $p < .05$ .

Models of all three profile summary parameters and all eight IIP-C octant scores were statistically significant ( $p < .05$ ).

Dominance-related problems were greater for men than women, Love-related problems were greater for women than men, and Elevation scores were unrelated to gender. High levels of nAch were linked with more Dominance-related problems, whereas FF was unrelated to Dominance. Neither achievement motive was significantly associated with Love-related problems. High levels of FF were associated with high Elevation scores, whereas nAch was unrelated to Elevation. These findings replicated the achievement motive results from Study 1.

At the octant level, men described themselves as being significantly more Vindictive, more Cold, and less Exploitable than women. After controlling for these gender differences, low nAch was associated with more Avoidant and Nonassertive problems. Fear of failure positively predicted all eight interpersonal problems. There were no significant two-way interactions between these predictor variables, and the unanticipated interaction in Study 1 was not replicated (the block of interaction terms significantly increased  $R^2$  for Intrusive problems,  $\Delta R^2 = .05$ ,  $p < .05$ , but no two-way interactions were statistically significant predictors).

#### *Peer-Reported Interpersonal Problems*

Table 4 presents parameter estimates from a series of actor-partner interdependence models that tested relations between gender, achievement motives, and peer-reported interpersonal problems. In these models, *partner effects* represent how participants' characteristics influenced their peers' ratings of participants' interpersonal problems, whereas *actor effects* represent how participants' characteristics influenced their ratings of their peers' interpersonal problems. The first model examined gender, nAch, and FF as predictors of three structural summary parameters for IIP-C profiles. This model fit the data well: original  $\chi^2(49, N = 172) = 62.55$ , I-NULL  $\chi^2(78) = 151.20$ , I-SAT  $\chi^2(42) = 51.23$ , adjusted  $\chi^2(7) = 11.32$ , adjusted null  $\chi^2(36) = 100.0$ , RMSEA = .06, CFI = .93. There were no partner effects for Dominance or Love; however, peers rated men and participants who feared failing as having more interpersonal distress. The only significant actor effect involved women perceiving their peers as having more interpersonal problems that varied

**Table 4**  
**Study 2: Actor-Partner Independence Model Parameter Estimates**  
**Linking Gender and Achievement Motives With Interpersonal**  
**Problems**

	Partner Effects			Actor Effects			<i>R</i> <sup>2</sup>
	Gender	nAch	FF	Gender	nAch	FF	
Structural Summary Parameters for Self-Reported IIP-C Profiles							
Dominance	.01	.03	.02	.15	.06	-.10	.05
Love	-.03	-.02	.10	-.34**	.13	.02	.15
Elevation	.24**	-.12	.24**	-.06	.11	.09	.13
Self-Reported IIP-C Octant Scores							
Domineering	.12	-.08	.13	.05	.06	-.02	.04
Vindictive	.20*	-.08	.14	.11	.09	.02	.09
Cold	.13	-.05	.11	.22**	-.01	.04	.09
Avoidant	.24**	-.09	.18*	.01	-.03	.14	.10
Nonassertive	.13	-.10	.11	-.17	.06	.11	.07
Exploitable	.11	-.10	.17*	-.24**	.13	.10	.12
Overly Nurturant	.17*	-.12	.27**	-.19*	.06	.13	.14
Intrusive	.14	-.02	.20**	-.09	.22**	-.01	.11

*Note.* nAch = Need for Achievement; FF = Fear of Failure; IIP-C = Inventory of Interpersonal Problems–Circumplex.

\*\* $p < .01$ , \* $p < .05$ .

around the Love axis than did men; there were no actor effects for the achievement motives.<sup>1</sup>

For a fine-grained follow-up to the profile-level analyses described above, eight models were estimated to predict partner and actor effects of gender and achievement motives on IIP-C octant scores.

<sup>1</sup>We tested an alternative APIM that included length of acquaintance and interactions between length of acquaintance and each achievement motive as predictors of the three structural summary parameters in peer ratings. Neither level of acquaintance nor the Level of Acquaintance  $\times$  nAch interaction had statistically significant actor or partner effects. The Level of Acquaintance  $\times$  FF interaction exhibited a significant partner effect ( $\beta = -0.21$ ,  $p < .01$ ). Partners rated low FF peers as increasingly dominant as their length of acquaintance increased. In contrast, partners rated high FF peers as decreasingly dominant as their length of acquaintance increased. The actor effect for the Level of Acquaintance  $\times$  FF interaction was not significant. None of our conclusions about actor or partner effects reported in the model without these terms changed.

All of these models fit the data well as indicated by the range of fit indices for the models: original  $\chi^2(24, N = 172) = 24.2\text{--}31.1$ , I-NULL  $\chi^2(36) = 52.4\text{--}74.0$ , I-SAT  $\chi^2(20) = 22.4\text{--}29.2$ , adjusted  $\chi^2(4) = 1.8\text{--}1.9$ , adjusted null  $\chi^2(16) = 28.6\text{--}46.7$ , RMSEA = .00, CFI = 1.00. Three gender-based partner effects were observed: Men were perceived as being more Vindictive, Avoidant, and Overly Nurturant. There were no partner effects for nAch, but participants who feared failing were perceived as being more Avoidant, Exploitable, Overly Nurturant, and Intrusive (partner effects). Gender-based actor effects emerged such that men rated their peers as more Cold, less Exploitable, and less Overly Nurturant than did women. There was only one significant motive-based actor effect: nAch was positively associated with rating others as being more Intrusive. No actor effects for FF appeared in these models.

### *Summary of Study 2 Findings*

This study replicated the major findings from Study 1: Deficits in pride-based nAch were associated with increased submissiveness, whereas shame-based FF was positively associated with interpersonal distress in self-reports. This study also extended Study 1 by differentiating partner and actor effects of motives on peers' perceptions of participants' interpersonal problems. Peers did not report the self-reported submissiveness associated with nAch deficits, but did note significant distress among people who feared failing (partner effect). This shame-based motive was most strongly linked with peer-reported Avoidant, Exploitable, Overly Nurturant, and Intrusive problems. These findings were consistent with our hypothesis that FF would lead to withdrawal and appeasement behaviors but inconsistent with our hypothesis that FF could spark rage-related behaviors. The two achievement motives had limited actor effects—nAch increased ratings of peers' Intrusiveness, but FF was not systematically associated with any ratings of peers' interpersonal problems.

## **GENERAL DISCUSSION**

The present research was based on the premise that differences in the reintegrated affective states that underlie achievement motives would produce different relations between those motives and interpersonal problems. Results from two studies of self- and peer-re-

ported interpersonal problems indicated that nAch had limited links to interpersonal problems, whereas FF was associated with widespread interpersonal difficulties.

Need for achievement was consistently associated with increased profile-level Dominance problems in participants' self-reports. Closer inspection of octant-level results revealed this relation to be the product of nAch deficits being associated with more submissive interpersonal problems (i.e., Avoidant, Nonassertive, Exploitable). In contrast to this finding, peers did not report any interpersonal problems linked with participants' nAch (i.e., no partner effects were observed). It is also worth noting that only 1 of 11 possible actor effects for nAch was observed—high nAch individuals viewed peers as being more Intrusive. These findings lead to conclusions that (a) nAch is associated with flexible and adaptive interpersonal behavior as opposed to rigid or extreme behavior that characterizes problems and (b) nAch minimally influences how individuals perceive their peers' interpersonal behavior. Previous research has established that nAch is rooted in secure attachment that buffers against relational threats and disruptions (Elliot & Reis, 2003). The present findings extend those results by demonstrating that high nAch is not expressed in patterns of rigid or extreme interpersonal behavior. Thus, appetitive achievement motivation appears to focus an individual on competence without attaching any surplus social meaning or goals to the competence pursuit that could detract from investment and absorption in achievement tasks (Elliot et al., 2002; McGregor & Elliot, 2005).

Deficits in nAch were associated with increased submission; however, this link was unique to self-reports and not observed in peer reports. This finding may indicate that dispositional problems with submissive behavior are subtle or difficult for others to detect (Leising, Rehbein, & Sporberg, 2007). It is also possible that nAch deficits bias self-perceptions instead of, or perhaps in addition to, actual interpersonal behavior. Future research that differentiates the status of interactants and focuses on transactional interpersonal behavior (e.g., Fournier et al., 2002; Moskowitz, Suh, & Desaulniers, 1994) would help to resolve this ambiguity regarding agentic consequences of nAch deficits.

Fear of failure was consistently associated with interpersonal distress in both of our studies based on self- and peer reports. This distress generalized across all eight octants of interpersonal problems

and was not localized to the Vindictive and Nonassertive octants as hypothesized. These findings are consistent with propositions that FF represents a form of achievement motivation that is bastardized by relational concerns and insecurity (Elliot & Reis, 2003; Elliot & Thrash, 2004). This surplus social meaning attached to incompetence is known to predispose individuals to adopt dysfunctional achievement goals (Conroy & Elliot, 2004) and may create burdensome information processing demands during task performance (Elliot & McGregor, 1999). It will be important for future research to establish whether FF exerts a causal influence on interpersonal behavior as well.

Although self-reports of distress clearly generalized across the circumplex, peer reports of distress were more specific and confined to the Avoidant and overly friendly octants (i.e., Exploitable, Overly Nurturant, Intrusive). The links between FF and submissive problems, such as being Avoidant and Exploitable, correspond with the withdrawal script that is often used to cope with shame (Nathanson, 1992). Friendly submission (i.e., being Exploitable) may serve to appease high status individuals (e.g., Bornstein, Riggs, Hill, & Calabrese, 1996; Pincus & Wilson, 2001), whereas hostile submission (i.e., being Avoidant) may represent a strategic compromise between the rage and withdrawal that follow shame (H. B. Lewis, 1971; Nathanson, 1992). That is, social avoidance may serve to express rage in a less overt and social manner that is appropriate for a friendship dyad while simultaneously minimizing threatening social exposure (e.g., Taylor, Lapsa, & Alden, 2004). A selection bias should also be considered when interpreting these results. Peers who participated in the study to help a friend earn extra credit might be expected to describe their friend in desirable terms; it would certainly be unusual for such friends to describe each other as Vindictive. Future research on problems perceived by informants with weaker friendship bonds (e.g., coworkers, teammates) or transactional interpersonal impacts among zero-acquaintance dyads could shed light on this issue.

These findings strengthen connections between motivation and behavior in two prominent domains of daily experience: the achievement domain and the social domain (Elliot, Gable, & Mapes, 2006). Whereas links between motivation and behavior within each domain are well established, this study demonstrated that motivation in the achievement domain is also linked to behavior in the social domain. Horowitz et al. (2006) recently reconceptualized interpersonal prob-

lems as the product of frustrated agentic and communal motives. There may be value in viewing the motivational underpinnings of interpersonal problems through an even broader lens in light of our evidence that noninterpersonal motives are also associated with interpersonal problems (see also Grosse Holtforth, Pincus, Grawe, Mauler, & Castonguay, 2007). Motives—achievement or otherwise—grounded in social emotions are likely to be expressed socially and may predict relatively stable individual differences in interpersonal problems.

In light of documented gender differences in interpersonal problems, gender was controlled for in all analyses. Findings from self-reports in these studies replicated previously reported gender differences (Gurtman et al., 2006; Horowitz et al., 2000). Consistent with the view that agency is masculine (Bakan, 1966), men described themselves as more dominant than women described themselves in both studies. Women described themselves as more loving than men described themselves in one study but not the other—a result that is only partially consistent with the view that communion is prototypically feminine (Bakan, 1966; Wiggins, 1991). Our dyadic study sheds important light on these findings because the observed pattern of actor effects more closely resembled the established pattern of gender differences than did the observed pattern of partner effects. It is possible that gender differences in self-reported interpersonal problems reflect the self-presentation of gendered social roles instead of actual differences in participants' interpersonal behavior (Eagly, 1987; Hogan & Nicholson, 1988; Prentice & Carranza, 2002). This explanation also could account for why relations between gender and self-reported interpersonal problems disappeared once socially desirable response biases were controlled.

When partner effects of gender were examined after controlling actor effects, peers described men as being more interpersonally distressed (in general) and more Vindictive, Avoidant, and Overly Nurturant (in particular)—a profile that diverges meaningfully from the gender difference profile documented in self-report studies of interpersonal problems. These problems varied along the love axis more than would be expected for men. This finding may indicate that in a friendship context men struggle with and are distressed by communal social roles more so than women do (Eagly, 1987; Prentice & Carranza, 2002). Alternatively, these findings may be artifacts of the instruction set used in the present study. Participants were asked to rate the degree to which each behavior has been problematic in any

significant relationship. Although peers were well acquainted with participants, they may have had a limited familiarity with their target's other significant relationships. Self-reports would not suffer from any such limitation; thus, the divergent results may represent the differential bases for self- and peer ratings of interpersonal behavior.

Some unique qualities of the present research warrant attention. First, conclusions about links between motives and interpersonal problems were strengthened by a near complete replication across the two studies reported herein. Second, the use of peer reports to complement self-reports of interpersonal problems permitted a more nuanced analysis of relations between achievement motives and problems. Neither self- nor peer reports represent the gold standard for assessing interpersonal problems, but both perspectives provide valuable information in personality assessment (Oltmanns & Turkheimer, 2006). The use of an actor-partner interdependence model was important for analyzing the peer-report data because it distinguished between actor and partner effects that would otherwise have been confounded.

This research was delimited to individual differences in interpersonal problems, and the peer reports of interpersonal problems derived from preexisting friendship dyads. It remains to be seen whether our results generalize to transactional interpersonal behavior or other types of relationships. Regardless, we are confident that even larger effects of achievement motives would be found in research focused on transactional behavior during competence pursuits. Research on transactional behavior would also be useful for establishing causal relations between achievement motives and interpersonal behavior. In these cross-sectional studies, achievement motives were assumed to exert a causal influence on interpersonal problems. It remains possible that reciprocal, or even reversed, relations could exist between achievement motives and interpersonal problems. Additionally, uncontrolled third variables (e.g., FFM traits) may play a role in some of the relations reported here, and further research is needed to rule out that possibility. Approach and avoidance forms of other motives (e.g., affiliation, power) could also interact with achievement motives to influence interpersonal behavior (Sorrentino, 1973).

Finally, the present findings were based on measures of self-attributed achievement motives and may or may not generalize to the interpersonal consequences of implicit achievement motives. It is well established that self-attributed motives function differently than implicit achievement motives in many achievement settings

(Koestner & McClelland, 1990; McClelland, 1985; McClelland, Koestner, & Weinberger, 1989; Schultheiss, 2008; Schultheiss & Brunstein, 2005; Thrash & Elliot, 2002; Thrash, Elliot, & Schultheiss, 2007). Self-attributed motives are typically responsive to social rather than task-based incentives and tend to predict declarative rather than procedural outcomes. In addition, only implicit motives are thought to predict spontaneous behaviors over time. Interpersonal dispositions inherently derive from social incentives, and self-reported interpersonal problems qualify as declarative outcomes; these findings clearly converge with conclusions about how self-attributed achievement motives function. On the other hand, peer-reported interpersonal problems arguably qualify as procedural outcomes and certainly reflect spontaneous behavior over time. Thus, our finding that significant partner effects emerged between self-attributed motives and peer-reported interpersonal problems raises questions about precisely how self-attributed achievement motives function in the prediction of behavior and particularly social behavior. The self may be so salient in regulating social behavior that both self-attributed and implicit motives engage self-referential processing and contribute to behavioral regulation, regardless of the specific incentive cues or memory structures associated with the behavioral outcome. Research that directly compares the unique, and possibly even interactive, effects of self-attributed and implicit motives on social behavior in different situations will be valuable for testing such speculations.

To summarize, our research supports the proposition that achievement motives are linked with predictable interpersonal expressions. The appetitive nAch motive was not associated with the rigid and extreme interpersonal behavior that characterizes problems; however, deficits in this motive were linked with excessive submissiveness. The aversive FF motive was associated with manifold interpersonal problems reported by peers as well as the self. These findings reinforce propositions that FF represents the commingling of achievement and relational concerns and suggest new mechanisms by which FF may influence productivity, social success, and well-being.

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