
The Intergenerational Transmission of Fear of Failure

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The intergenerational transmission of fear of failure was examined in two studies with undergraduates and their parents. Parent-undergraduate concordance in fear of failure was documented for mothers and fathers, controlling for parents' and undergraduate's impression management and self-deceptive enhancement response tendencies. Love withdrawal was validated as a mediator of parent-undergraduate concordance in fear of failure for mothers but not for fathers. Mothers' and fathers' fear of failure was also a positive predictor of undergraduate's adoption of performance-avoidance goals in the classroom, and undergraduate's fear of failure was shown to mediate this relationship. Fathers' fear of failure was also a negative predictor of undergraduate's mastery goal adoption, and this relationship was likewise mediated by undergraduate's fear of failure. The results are discussed in terms of the reorienting of positive, appetitive achievement motivation toward negative, aversive achievement motivation.

Keywords: *motive; goals; achievement; failure; avoidance*

In the classroom, on the ball field, and at the workplace, many individuals are motivated by the desire to avoid failure. Since the groundbreaking work of Murray (1938) and McClelland, Atkinson, Clark, and Lowell (1953), theorists have posited individual differences in this avoidance motivational tendency, referring to it as the motive to avoid failure or, more commonly, fear of failure. Researchers have clearly demonstrated that fear of failure has negative implications for a host of outcomes, including task choice, effort expenditure, persistence, performance attainment, intrinsic motivation, and well-being (see Atkinson & Feather, 1966; Birney, Burdick, & Teevan, 1969; Elliot & Sheldon, 1997; Heckhausen, 1975). Fear of failure typically influences these outcomes indirectly by prompting the adoption of specific avoidance-based goals and strategies (e.g., performance-avoidance goals, self-handicapping) that in turn directly exert their inimical effects (Elliot & Church, 1997). Fear of failure and associated forms of

avoidance motivation are as widespread as they are deleterious; they are prominent in both sexes, among all ethnic groups, and across levels of actual and perceived ability (Covington, 1992; Elliot, 1999; Hill, 1984).

Given the conceptual and applied importance of the fear of failure construct, it is surprising that little research has been conducted on its developmental origins. Teevan (1983) focused on parental responses to children's achievement outcomes and linked children's fear of failure to their mothers' tendency to punish their failures and respond neutrally to their successes. Argyle and Robinson (1962) examined the relationship between parental expectations for achievement and children's fear of failure and found high expectations to be positively associated with fear of failure, particularly for children strongly identified with their parents. The timing of parental expectations for their children's achievement and independence behavior also has been investigated, and researchers have documented a positive relationship between early expectations and children's fear of failure (Schmalt, 1982; Teevan & McGhee, 1972). Negative maternal characteristics such as irritability and dependency have been linked to high fear of failure in children (Singh, 1993), as has paternal absence from the home, especially due to the father's death (Greenfield & Teevan, 1986).

Similar to the extant literature, the present research focuses on the role of parental socialization in the devel-

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opment of fear of failure. Unlike the existing literature, our research also focuses on the intergenerational transmission of fear of failure. Specifically, parent-child concordance in fear of failure is posited, and parental use of love withdrawal in the socialization process is hypothesized to be an important mediator of this concordance. We examined these hypotheses using parents and their undergraduate children as participants and using undergraduates' reports of their parents' love withdrawal during childhood. The rationale for our hypotheses, as well as the other hypotheses investigated in the present research, are explicated in the following. First, however, we delineate the conceptual nature of the fear of failure construct.

THE CONCEPTUAL NATURE OF FEAR OF FAILURE

Fear of failure is an avoidance-based motive disposition in the achievement domain. Specifically, following the pioneering work of Murray (1938) and Atkinson (1957), fear of failure is defined as the dispositional tendency to orient toward and to seek to avoid failure in achievement settings because one feels shame on failure. It is not failure per se that is feared and avoided but the shame that accompanies failure (Atkinson, 1957; Birney et al., 1969). Thus, a clear understanding of the fear of failure construct necessitates consideration of the dynamics of the shame experience.

Contemporary emotion theorists construe shame as an extremely painful experience in which one feels that one's entire self is a failure, is stupid, or is bad (Lewis, 1992). Shame also involves an awareness that this defective self is exposed before a real or imagined audience, is judged unworthy of love, and is in danger of being abandoned (Andrews, 1995). The action tendency presumed to be associated with shame is avoidance and withdrawal—the urge to escape the presence of others and hide the self (Mascolo & Fisher, 1995). Thus, although fear of failure is an achievement motive, its conceptual grounding in the shame experience suggests that it is also inherently relational.

Fear of failure establishes a framework for how the individual defines and experiences failure and, consequently, thinks, feels, and acts in competence-relevant settings (Heckhausen, 1975). For the high fear of failure individual, failure indicates global incompetence and carries the message that the self is unworthy of love and is in danger of being abandoned. Given the acute painfulness of the failure experience, in achievement settings, this individual perceptually and cognitively orients to failure-relevant information. This individual also experiences anxiety prior to and during task engagement and seeks to protect the self from failure by escaping the situation physically (quitting) or mentally (withdrawing

effort) or by pushing hard to succeed (in order to avoid failure) (Covington, 1992; Elliot & Church, 1997).

PARENT-CHILD CONCORDANCE IN FEAR OF FAILURE

The cross-generational continuity of social behavior has been of interest to social scientists for many years. Researchers have obtained evidence of parent-child concordance for many different variables (for reviews, see Holden & Zambarano, 1992; Putallaz, Costanzo, Grimes, & Sherman, 1998), with the preponderance of empirical activity being in the areas of attachment (Steele, Steele, & Fonagy, 1996), parenting attitudes and behaviors (Van Ijzendoorn, 1992), substance abuse (Kandel & Wu, 1995), and relationship dysfunction and divorce (Belsky & Pensky, 1988). Little research has been conducted on motivational variables (Adams & Sarason, 1963; Parsons, Adler, & Kaczala, 1982), and research has yet to be conducted on the relationship between parents' fear of failure and that of their children. As stated above, our first hypothesis is that parent fear of failure is a positive predictor of child fear of failure. In the present research, we tested this hypothesis by examining the concordance between parents' fear of failure and the fear of failure of their undergraduate children.

There are a number of ways in which parent-child concordance in any disposition or behavioral tendency may occur (see Simonton, 1983). In keeping with McClelland's (1973, 1985) theorizing on the development of motive dispositions, we view fear of failure as emerging from recurrent patterns of parent-child interactions. Parents' fear of failure is posited to lead them to display particular patterns of affect, cognition, and behavior with regard to their children's mistakes and failures that teach their children that mistakes and failure are to be avoided at all costs. We focused specifically on one particular type of parenting practice—love withdrawal—that we think is likely to be a central mediator of parent-child fear of failure concordance.

Love withdrawal is defined as a socialization technique whereby the parent withdraws affection or creates a physical separation from his or her child when the child behaves in an undesirable manner (Hoffman, 1970). The use of love withdrawal in socialization can take a variety of different forms. For example, the parent may look coldly at the child, turn away from the child, refuse to speak to or look at the child, express dislike of the child verbally, move away from the child, send the child to another room, or threaten to remove the child from the home (Sears, Maccoby, & Levin, 1957; Zahn-Waxler & Kochanska, 1990). The underlying similarity in these actions is that they communicate that undesirable behavior results in the parent's emotional or physical withdrawal. Love withdrawal has primarily been studied

with regard to the development of moral and prosocial values and behaviors (Aronfreed, 1968; Hoffman & Saltzstein, 1967; Zahn-Waxler & Kochanska, 1990); in the present work, we apply it to the development of fear of failure.

Parental use of love withdrawal is posited to mediate parent-child concordance in fear of failure, and the first hypothesis in our mediational model is that parents' fear of failure positively predicts their use of love withdrawal in socializing their children. Fear of failure influences the way in which parents view failure; it affects the way that they interpret their own failures and, undoubtedly, affects how they interpret and respond to their children's failures as well. The shame that parents high in fear of failure experience when they fail includes an appraisal of the self as devalued and less worthy of love and acceptance; thus, when their children fail, these parents are likely to similarly appraise their children as shameful (devalued and less worthy of love and acceptance) and to behave in accord with this appraisal by withdrawing from them emotionally or physically. Furthermore, parents often view their children as an extension of themselves and, consequently, project their hopes, fears, and expectations onto their offspring (Crandall & Preston, 1961). In this case, parents high in fear of failure respond to their children's outcomes the same way they respond to their own outcomes because the two outcomes are inextricably intertwined. Finally, to a large extent, the parenting task is itself a competence-relevant activity for parents, such that their children's successes and failures have a direct impact on the parents' own self-evaluative judgments (Katkovsky, Preston, & Crandall, 1964). Indeed, children's mistakes and misbehaviors in general, not just in achievement situations, reflect negatively on the parent's competence and are likely to elicit both shame in the parent and a shaming response (love withdrawal included) toward the misbehaving child. As such, parent fear of failure is likely to be linked to love withdrawal in general, not just in achievement situations.

The second hypothesis in our mediational model is that parents' use of love withdrawal positively predicts their children's fear of failure. In their behavior toward their children, parents teach their children the meaning of different outcomes and actions (Parsons et al., 1982). When a parent responds to a child's failure by withdrawing love, it teaches the child that failure is shameful because it communicates that when the child fails, he or she is no longer worthy of love and affection (Lewis, 1992). Motive dispositions develop when a class of events become associated with a particular affective experience (McClelland, 1985), and in the case of fear of failure, parental use of love withdrawal establishes an association between failure and shame. Mistakes and failures are an

inevitable part of the exploration and maturation process; therefore, children of high fear of failure parents are likely to encounter love withdrawal early and often and to gradually develop a "dispositional capacity to experience shame upon failure" (Atkinson, 1957, p. 360). As this dispositional capacity emerges, the child learns to orient toward and seek to avoid failure, which helps to further "structuralize" the motive (Maggai & McFadden, 1995) and give it a "self-perpetuating" quality (Heckhausen, 1975). The roots of the fear of failure motive are laid down rather early in development (Heckhausen, 1984), before children are able to differentiate between mistakes and misbehaviors in different domains (Dweck, 2002). Accordingly, it is likely that love withdrawal in response to mistakes and misbehaviors in general, not just in the achievement domain, contributes to the child's fear of failure.

We presume that few parents proactively decide to employ love withdrawal as a socialization technique; rather, most who use it are simply responding to their children in a reactive manner out of their own deeply engrained self-evaluative processes. Furthermore, love withdrawal is often subtle, communicated with a distinct gesture, facial expression, or tone of voice that carries a particular message within the specific relational context. Accordingly, it is not surprising that attempts to assess love withdrawal through parental report or observation have encountered many difficulties (see Chapman & Zahn-Waxler, 1982; Hoffman & Saltzstein, 1967; Sears et al., 1957). Many parents simply are not aware of their use of love withdrawal, those who are aware of it may be hesitant to report it, and coding love withdrawal in a reliable and valid manner without intimate knowledge of the parent-child relationship is highly improbable. In light of these issues, children who are the recipients of love withdrawal appear to be the best source of information, and it is these reports that are used in the present work to test our hypotheses. Specifically, we examined the role of undergraduate reports of their parents' love withdrawal during childhood as a mediator of parent-undergraduate fear of failure concordance.

PARENTS' FEAR OF FAILURE AS A PREDICTOR OF THEIR CHILDREN'S ACHIEVEMENT GOAL ADOPTION

In our hierarchical model of approach-avoidance achievement motivation (Elliot & Church, 1997), we have distinguished achievement motives, such as fear of failure, from social-cognitive achievement goals. Whereas achievement motives are domain-general, affectively based dispositions, achievement goals are cognitive representations of competence-based outcomes that individuals strive to attain in specific achievement settings (Elliot & Thrash, 2001). Three distinct types of

achievement goals are operative in most achievement contexts (Elliot & Harackiewicz, 1996): mastery goals (which focus on the development of competence and task mastery), performance-approach goals (which focus on attaining competence relative to others), and performance-avoidance goals (which focus on avoiding incompetence relative to others). Little empirical research has been conducted on parental antecedents of children's achievement goal adoption, despite an appeal for such work by the National Advisory Mental Health Council (1995). The minimal work that has been conducted in this area has focused on parenting styles and practices, linking, for instance, authoritative parenting to mastery goals (Gonzalez, Doan Holbein, & Quilter, 2002), authoritarian parenting to performance goals (performance-approach and performance-avoidance combined) (Gonzalez et al., 2002), and person-focused negative feedback to performance-avoidance goals (Elliot & McGregor, 2001).

Our general hypothesis is that parents' fear of failure influences the achievement goal adoption of their children. Specifically, in the present research, we examined whether parents' fear of failure positively predicts their undergraduate's adoption of performance-avoidance goals in a specific achievement setting and if this relationship is mediated by the undergraduate's fear of failure. Achievement motives (such as fear of failure) are global dispositions that serve an orienting function in achievement situations, and achievement goals (such as performance-avoidance goals) serve as channels that focus these broad dispositions on concrete, competence-based possibilities (Elliot, 1997; Thrash & Elliot, 2001). Given their shared valence, performance-avoidance goals are presumed to be a primary channel for fear of failure (Elliot & McGregor, 1999; Thrash & Elliot, 2002). Fear of failure also has been shown to be a positive predictor of performance-approach goals (Elliot & Church, 1997) and, in some instances, may even undermine the pursuit of mastery goals (Elliot, 1999). As such, it is possible that parents' fear of failure is also a positive predictor of their children's performance-approach goals and a negative predictor of mastery goals. These possibilities also were examined in the present research.

STUDY 1

Study 1 was designed to investigate the relationship between parent and undergraduate fear of failure. In doing so, we assessed and controlled for two response tendencies that have been shown to be substantively rooted in personality content: impression management and self-deceptive enhancement (Paulhus & John, 1998). Impression management is a deliberate, moralistic tendency to minimize and downplay one's faults and wrongdoings. It is part of a broad constellation of

communion-relevant personality characteristics (i.e., a superfactor labeled "Gamma") that includes conscientiousness and agreeableness (Pauls & Stemmler, 2003). Self-deceptive enhancement is a nonconscious, egoistic tendency to exaggerate one's talent and status. It is part of a broad constellation of agency-relevant personality characteristics (i.e., a superfactor labeled "Alpha"; for details on these superfactors, see Paulhus & John, 1998; Wiggins, 1964) that includes openness and neuroticism (Paulus, 2002) (indeed, zero-order correlations with neuroticism run as high as $-.58$; see Reid-Seiser & Fritzsche, 2001). Both impression management and self-deceptive enhancement are likely associated with fear of failure, a construct imbued with both communion- and agency-relevant characteristics (Elliot & Reis, 2003; cf. Paulhus & John, 1998). As such, parent-undergraduate concordance in either response tendency could inflate or even produce parent-undergraduate concordance in fear of failure and it is important to control for this possibility.

Although the majority of intergenerational transmission and parental socialization research focuses on mothers only (Holdon & Zambarano, 1992), in this study and in Study 2 we focused on both mothers and fathers. All hypotheses were examined for mothers and fathers separately.

Method

PARTICIPANTS AND PROCEDURE

One hundred and forty-five (49 men, 96 women) undergraduates in an introductory-level psychology class participated in the study in return for extra credit. Undergraduate participants were informed that the study involved completing questionnaires. They were provided with a questionnaire packet and returned the completed packet to the investigator 1 week later. Undergraduate participants also were informed that the study involved sending questionnaires to their biological parents and a sealed envelope for their mother and a separate sealed envelope for their father were provided. Undergraduates indicated whether their parents had any difficulties with English, and only parents proficient in English were allowed to participate in the study. The sealed envelopes for the parent participants contained the following: an introductory letter requesting participation, a questionnaire packet to complete, and a preaddressed and stamped envelope in which to return the completed packet. Of the 143 mothers and 135 fathers who were sent questionnaires,¹ 138 mothers (96.5%) and 128 fathers (94.8%) voluntarily participated. All participants were informed that their responses would be kept strictly confidential.

TABLE 1: Study 1: Descriptive Statistics

Variable	M	SD	Possible Range	Observed Range
1. Undergraduate fear of failure	19.74	4.06	7-35	10-33
2. Mother fear of failure	14.37	3.86	7-35	7-27
3. Father fear of failure	14.00	3.65	7-35	7-26
4. Undergraduate impression management	5.33	3.13	0-20	0-18
5. Mother impression management	8.99	3.95	0-20	0-19
6. Father impression management	7.85	3.91	0-20	1-16
7. Undergraduate self-deceptive enhancement	4.76	2.83	0-20	1-16
8. Mother self-deceptive enhancement	6.44	3.32	0-20	0-15
9. Father self-deceptive enhancement	6.98	3.63	0-20	0-15

TABLE 2: Study 1: Intercorrelations and Reliabilities

Variable	Intercorrelations and Reliabilities								
	1	2	3	4	5	6	7	8	9
1. Undergraduate fear of failure	.64								
2. Mother fear of failure	.22	.63							
3. Father fear of failure	.22*	.18*	.56						
4. Undergraduate impression management	-.23**	-.08	-.05	.62					
5. Mother impression management	-.01	-.35**	-.09	.05	.75				
6. Father impression management	.04	-.11	-.26**	-.08	.24**	.75			
7. Undergraduate self-deceptive enhancement	-.32**	-.05	-.06	.28**	-.04	.00	.65		
8. Mother self-deceptive enhancement	-.03	-.38**	-.01	-.01	.39**	.16	.11	.66	
9. Father self-deceptive enhancement	-.08	-.14	-.39**	.06	.15	.28**	.26**	.15	.73

NOTE: Reliabilities are presented in the diagonal.

* $p \leq .05$. ** $p \leq .01$.

MEASURES

Fear of failure. Fear of failure was assessed with the short form of Houston and Kelly’s (1987) fear of failure measure developed by Elliot and Church (2003). This seven-item measure (e.g., “If I do poorly at something, I usually prefer to not let anyone know or try to cover it up”) is based on Birney et al.’s (1969) conceptualization of fear of failure and has been shown to be reliable and valid (see Elliot & Church, 2003; Houston & Kelly, 1987). Each item is rated on a 1 (*not at all like me*) to 5 (*very much like me*) scale, and the items are summed to form the fear of failure index. Separate fear of failure indexes were computed for undergraduate, mother, and father participants.

Response tendencies. Paulhus’s (1991) 40-item Balanced Inventory of Desirable Responding (BIDR) was used to assess impression management (e.g., “I always obey laws, even if I’m unlikely to get caught) and self-deceptive enhancement (e.g., “I always know why I like things”). Each item is rated on a 1 (*not true*) to 7 (*very true*) scale. After reverse-scoring, participants receive one point for each extreme (6 or 7) response, and their scores for each subscale are summed to form impression management and self-deceptive enhancement indexes (see Paulhus,

1991, for reliability and validity information). Separate indexes of each construct were computed for undergraduate, mother, and father participants.

Results and Discussion

Tables 1 and 2 display descriptive statistics, intercorrelations, and reliabilities for the variables in the study. Preliminary analyses included undergraduate gender and undergraduate gender interactions; no significant gender findings were observed.

Parent-undergraduate concordance in fear of failure was examined by computing Pearson’s product-moment correlations between mother and undergraduate fear of failure and between father and undergraduate fear of failure. Mother fear of failure was positively related to undergraduate fear of failure, $r = .22$ ($p < .05$) as was father fear of failure, $r = .22$ ($p < .05$).

Next, we examined the relationship between response tendencies and fear of failure for the undergraduate, mother, and father participants. For undergraduate participants, fear of failure was negatively related to both impression management, $r = -.23$ ($p < .01$) and self-deceptive enhancement, $r = -.32$ ($p < .01$). For mother participants, fear of failure was also negatively related to impression management, $r = -.35$ ($p <$

TABLE 3: Study 1: Correlations With Undergraduate Fear of Failure

	<i>Not Controlling Response Tendencies</i>	<i>Controlling Impression Management</i>	<i>Controlling Self-Deceptive Enhancement</i>
Mother fear of failure	.22*	.22*	.23**
Father fear of failure	.22*	.23**	.24**

NOTE: The first column represents the relationship between parent and undergraduate fear of failure not controlling for response tendencies. The second column represents the relationship between parent and undergraduate fear of failure controlling for both parent and undergraduate impression management. The third column represents the relationship between parent and undergraduate fear of failure controlling for both parent and undergraduate self-deceptive enhancement.

* $p \leq .05$. ** $p \leq .01$.

.01) and self-deceptive enhancement, $r = -.38$ ($p < .01$). Likewise, for father participants, fear of failure was negatively related to impression management, $r = -.26$ ($p < .01$) and self-deceptive enhancement, $r = -.39$ ($p < .01$).

To examine fear of failure concordance controlling for these response tendencies, we created residualized fear of failure variables by removing the response tendency variance from the fear of failure measures and then computing the correlations using these residualized variables. Each of the fear of failure concordances reported above remained significant in these analyses. When controlling impression management, mother fear of failure was still positively related to undergraduate fear of failure, $r = .22$ ($p < .05$), as was father fear of failure, $r = .23$ ($p = .01$). When controlling self-deceptive enhancement, mother fear of failure remained positively related to undergraduate fear of failure, $r = .23$ ($p < .01$), as did father fear of failure, $r = .24$ ($p < .01$). A summary of these results is provided in Table 3.²

In sum, mothers' fear of failure and fathers' fear of failure were both shown to positively predict their undergraduate's fear of failure. Impression management and self-deceptive enhancement response tendencies were shown to be negatively related to fear of failure for all participants, but these variables did not account for the observed parent-undergraduate concordances.

STUDY 2

Having documented the relationship between parent fear of failure and undergraduate fear of failure in Study 1, Study 2 was designed to test the love withdrawal mediational model. Study 2 also was designed to test the relationship between parents' fear of failure and their undergraduate's adoption of performance-avoidance goals in an actual classroom setting, as well as to examine undergraduate fear of failure as the mediator through which the direct relationship is established. Other links

between parents' fear of failure and undergraduate's achievement goal adoption also were examined. Structural equation modeling (SEM) with multiple indicators of latent constructs was used to test all hypotheses.

Method

PARTICIPANTS AND PROCEDURE

One hundred and fifty-seven (55 men, 102 women) undergraduates in an introductory-level psychology class participated in the study in return for extra credit. Undergraduate participants were informed that the study involved completing questionnaires. They completed their questionnaires in three different sessions (two large-group sessions and one take-home session). The achievement goal assessment took place 2 weeks prior to participants' midterm exam in their psychology class and several weeks after the completion of the other measures in the study.

Undergraduate participants also were informed that the study involved having questionnaires sent to their biological parents, and they provided their parents' name(s), address(es), and phone number(s). The parents were called to inquire whether they would agree to participate and to check on their English proficiency (only parents proficient in English were allowed to participate in the study). Each participating parent was sent an envelope that contained the following: an introductory letter, a questionnaire packet to complete, and a preaddressed and stamped envelope in which to return the completed packet. Of the 152 mothers and 124 fathers who were sent questionnaires, 139 mothers (91.5%) and 107 fathers (86.3%) voluntarily participated. All participants were informed that their responses would be kept strictly confidential.

MEASURES

Fear of failure. Two measures were used to assess fear of failure: the Houston and Kelly (1987) measure used in Study 1 and Hermans's (1990) 27-item measure. The Herman measure (e.g., "I try to avoid failure at all costs") is a longer and more internally consistent indicator of fear of failure and is based on Atkinson's (1957) portrait of the "failure-threatened personality" (p. 369). Research attests to the reliability and validity of the measure (Elliot & Church, 1997). Participants' responses on the 1 (*strongly disagree*) to 5 (*strong agree*) scales are summed to form the Herman fear of failure index. For each measure, separate fear of failure indexes were computed for undergraduate, mother, and father participants.

Love withdrawal. Three measures were used to assess undergraduate's recollections of parental love withdrawal: the five-item Withdrawal of Relations scale of the Children's Report of Parental Behavior Inventory

TABLE 4: Study 2: Descriptive Statistics, Intercorrelations, and Reliabilities

Variable	M	SD	Possible Range	Observed Range
1. Undergraduate fear of failure 1	70.37	11.74	27-135	36-101
2. Mother fear of failure 1	62.20	12.79	27-135	32-101
3. Father fear of failure 1	62.12	11.56	27-135	31-94
4. Undergraduate fear of failure 2	19.20	4.52	7-35	10-30
5. Mother fear of failure 2	17.10	4.22	7-35	7-34
6. Father fear of failure 2	17.37	3.71	7-35	10-26
7. Mother love withdrawal 1	8.32	3.52	5-25	5-18
8. Father love withdrawal 1	9.03	3.73	5-25	5-20
9. Mother love withdrawal 2	4.57	3.09	3-21	3-21
10. Father love withdrawal 2	4.73	3.14	3-21	3-21
11. Mother love withdrawal 3	17.36	6.71	8-40	8-40
12. Father love withdrawal 3	15.96	6.30	8-40	8-33
13. Mastery goals	30.97	5.17	6-42	18-42
14. Performance-approach goals	24.05	9.55	6-42	6-42
15. Performance-avoidance goals	24.22	7.26	6-42	8-38

NOTE: Fear of failure 1 = Herman measure; fear of failure 2 = Houston and Kelly measure; love withdrawal 1 = Children's Report of Parental Behavior Inventory (CRPBI) measure; love withdrawal 2 = Socialization of Moral Affect (SOMA) measure; love withdrawal 3 = Bartlett and Smith measure. * $p \leq .05$. ** $p \leq .01$.

(CRPBI) (Schluderman & Schluderman, 1983), the eight-item love withdrawal measure from the Socialization of Moral Affect scale (SOMA) (Rosenberg, Tangney, Denham, Leonard, & Widmaier, 1994), and the three love withdrawal items from Bartlett and Smith's (1966) child-rearing practices measure. For all measures, participants were instructed to answer the items with regard to how their parents behaved toward them when they were young children.

On the Withdrawal of Relations measure, participants respond to the items (e.g., "Would avoid looking at me when I disappointed him/her") for each parent on a 1 (*very unlike her/him*) to 4 (*very like her/him*) scale (see Schluderman & Schluderman, 1983, for reliability and validity information). The items for each parent were summed to form the mother and father CRPBI love withdrawal indexes.

The SOMA love withdrawal measure is a scenario-based assessment in which the respondent is provided with an example of a mistake or transgression that a child might commit (e.g., "Cheating during a game"), accompanied by a parental response (e.g., "Say, 'You're not acting like someone I want to play with,' and leave the game"). The respondent rates the likelihood (1 = *not at all likely* to 5 = *very likely*) that his or her mother/father would have responded in the given manner. Reliability and validity information for the measure is reported in Rosenberg et al. (1994). The items from the measure for each parent were summed to form mother and father SOMA love withdrawal indexes.

Bartlett and Smith's (1966) love withdrawal items are presented with reference to nine achievement outcomes/behaviors. Respondents indicate the extent to

which their mother or father responded in the given manner (e.g., "Turn cold on you") when the child did not meet expectations regarding the types of outcomes/behaviors listed (e.g., "To try hard to come out on top in games and sports"). Undergraduates answered the items on a 1 (*never*) to 7 (*all of the time*) scale. The three items for each parent were summed to form mother and father Bartlett and Smith love withdrawal indexes.

Achievement goals. Elliot and Church's (1997) 18-item achievement goals questionnaire was used to assess undergraduate participants' achievement goals for their midterm exam.³ Six items are used to assess mastery goals (e.g., "I desire to completely master the material presented in this section of the class"), performance-approach goals (e.g., "I am striving to demonstrate my ability relative to others on this exam"), and performance-avoidance goals (e.g., "I just want to avoid doing poorly on this exam"). Participants indicate their responses on a 1 (*not at all true of me*) to 7 (*very true of me*) scale. Reliability and validity information is presented in Elliot and Church (1997). The items for each goal variable were summed to form the mastery, performance-approach, and performance-avoidance goal indexes.

Results and Discussion

Tables 4 and 5 display descriptive statistics, intercorrelations, and reliabilities for the variables in the study. Preliminary analyses indicated that undergraduate gender and performance-approach goals were intercorrelated; therefore, this relationship was represented in all applicable analyses. Multigroup SEM analyses testing gender moderation failed to yield any evi-

TABLE 5: Study 2: Intercorrelations and Reliabilities

Variable	Intercorrelations and Reliabilities														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Undergraduate fear of failure 1	.82														
2. Mother fear of failure 1	.22**	.88													
3. Father fear of failure 1	.20*	.27**	.86												
4. Undergraduate fear of failure 2	.60**	.31**	.22*	.67											
5. Mother fear of failure 2	.21*	.61**	.03	.32**	.60										
6. Father fear of failure 2	.15	.09	.52**	.25**	.03	.47									
7. Mother love withdrawal 1	.21*	.22**	.15*	.28**	.18*	.15	.84								
8. Father love withdrawal 1	.19*	-.01	.06	.22*	-.05	.09	.57**	.83							
9. Mother love withdrawal 2	.19*	.16	.11	.27**	.16	.18	.44**	.16	.79						
10. Father love withdrawal 2	.14	-.06	-.05	.14	-.20*	.00	.17	.35**	.67**	.77					
11. Mother love withdrawal 3	.24**	.17*	.09	.33**	.30**	.25**	.51**	.46**	.29**	.11	.78				
12. Father love withdrawal 3	.22*	.05	.02	.34**	.21*	.08	.28**	.46**	-.09	.21*	.78**	.78			
13. Mastery goals	-.19*	-.06	-.31**	-.20*	-.02	-.21*	-.18*	-.11	-.22**	-.15	-.08	-.09	.84		
14. Performance-approach goals	.21*	-.09	.19	.24*	.02	-.03	-.02	.11	.01	-.02	.25**	.26**	.24**	.94	
15. Performance-avoidance goals	.46**	.22*	.20*	.44**	.21*	.09	.19*	.17	.04	-.03	.21*	.16	-.18*	.09	.79

NOTE: Reliabilities are presented in the diagonal. Fear of failure 1 = Herman measure; fear of failure 2 = Houston and Kelly measure; love withdrawal 1 = Children’s Report of Parental Behavior Inventory (CRPBI) measure; ove withdrawal 2 = Socialization of Moral Affect (SOMA) measure; love withdrawal 3 = Bartlett and Smith measure.
 * $p \leq .05$. ** $p \leq .01$.

dence for gender differences in the any of the results presented below.

SEM was used to examine the direct and mediational hypotheses. Analyses of covariance matrices were conducted using AMOS 4, and solutions were generated on the basis of maximum-likelihood estimation. Each latent variable was represented by a minimum of three observed indicators (Bentler & Chou, 1987), and the unstandardized loading of the indicator with the highest reliability (or the strongest loading when reliability estimates were not available) was set to 1 for each model (Byrne, 2001). When necessary, the empirical equivalence approach to parceling (Landis, Beal, & Tesluk, 2000) was used to create multiple indicators of the latent variables. Both absolute (e.g., χ^2/df) and incremental (e.g., Comparative Fit Index—CFI) fit indexes were used to evaluate model fit.

Two types of SEM models were used in our analyses. In the direct SEM model, the direct relationship between the independent variable and the dependent variable was investigated. If this relationship attained significance, the mediational SEM model was examined. The mediational model simultaneously tested the relationship between the independent variable and the hypothesized mediator and the relationship between the hypothesized mediator and the dependent variable, controlling for the direct relationship between the independent variable and the dependent variable. In this model, mediation would be indicated by (a) a significant relationship between the independent variable and the hypothesized mediator, (b) a significant relationship between the hypothesized mediator and the dependent variable, and (c) a decrease in the direct relationship between the independent variable and the dependent

variable (Kenny, Kashy, & Bolger, 1998). If this direct relationship remained significant, partial mediation would be documented, whereas if this direct relationship no longer remained significant, full mediation would be documented. As a further test of mediation, MacKinnon, Lockwood, Hoffman, West, and Sheets (2002), *z'* test, was computed to examine the significance of the indirect relationship between the independent variable and the dependent variable via the hypothesized mediator.

PARENT FEAR OF FAILURE TO UNDERGRADUATE FEAR OF FAILURE

First, the direct relationship between parent fear of failure and undergraduate fear of failure was tested. The fear of failure latent variables were represented by a pair of parcels from each fear of failure measure. The direct model for mothers provided a good fit to the data, $\chi^2(19, N=139) = 28.43$, CFI = 1.00, Tucker-Lewis Index (TLI) = 1.00, root mean square error of approximation (RMSEA) = .060. The path from mother fear of failure to undergraduate fear of failure was significant, $\beta = .33$ ($p < .01$). The direct model for fathers also provided a good fit to the data, $\chi^2(19, N=107) = 13.88$, CFI = 1.00, TLI = 1.00, RMSEA = .000. The path from father fear of failure to undergraduate fear of failure was significant, $\beta = .28$ ($p < .05$). These analyses replicated the results of Study 1 and established the direct relationships between parent fear of failure and undergraduate fear of failure.

In the second set of SEM models, parental love withdrawal was examined as a mediator of parent-undergraduate fear of failure concordance. Each fear of failure latent variable was represented in the same manner as described above and the love withdrawal latent variable had three observed indicators: the CRPBI withdrawal of relations measure, the SOMA love withdrawal measure, and the Bartlett and Smith love withdrawal measure. The mediational model for mothers provided a good fit to the data, $\chi^2(41, N=139) = 57.03$, CFI = 1.00, TLI = .99, RMSEA = .053. The path from mother fear of failure to mother love withdrawal was significant, $\beta = .30$ ($p < .01$), as was the path from mother love withdrawal to undergraduate fear of failure, $\beta = .34$ ($p < .01$). The direct path from mother fear of failure to undergraduate fear of failure dropped from .33 to .23 (33.30%); this path remained significant ($p < .05$), signifying partial mediation of the direct relationship. The *z'* test indicated that mother love withdrawal was a significant mediator of the relationship between mother fear of failure and undergraduate fear of failure, $z' = 2.04$ ($p < .01$).

The mediational model for fathers provided a good fit to the data, $\chi^2(41, N=107) = 28.56$, CFI = 1.00, TLI = 1.00, RMSEA = .000. The path from father fear of failure to father love withdrawal was not significant ($\beta = .05$), but

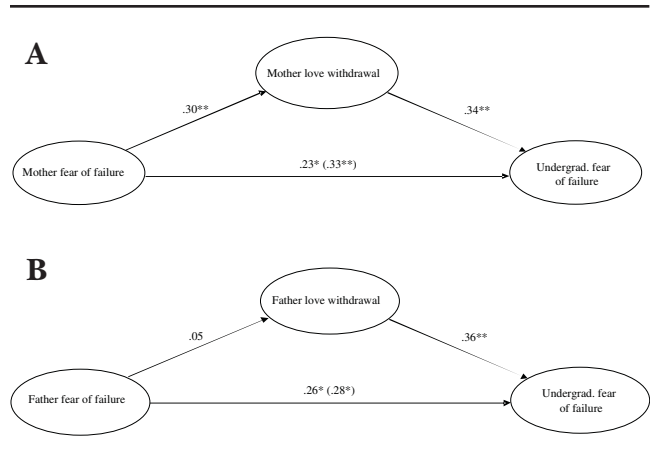


Figure 1 The love withdrawal mediational results for mothers (A) and fathers (B).

NOTE: Only theoretically central constructs are included in the figures for presentation clarity. All constructs were represented as latent variables, and the coefficients in the figures are standardized estimates. The standardized estimates in parentheses are those from the direct relationship models. Undergrad. = undergraduate. * $p \leq .05$. ** $p \leq .01$.

the path from father love withdrawal to undergraduate fear of failure was significant, $\beta = .36$ ($p < .01$). The path from father fear of failure to undergraduate fear of failure only dropped from .28 to .26 (7.14%) and remained significant ($p < .05$). These results do not support the mediational role of love withdrawal for father-undergraduate fear of failure concordance. The *z'* test also failed to support mediation, $z' = .39$. (See Figures 1A and 1B for a pictorial representation of the mother and father love withdrawal mediation results.)

PARENT FEAR OF FAILURE TO UNDERGRADUATE ACHIEVEMENT GOAL ADOPTION

The same type of SEM analyses used above also were used to examine the relationship between parent fear of failure and undergraduate achievement goal adoption. First, the direct relationship between parent fear of failure and undergraduate achievement goal adoption was tested; each of the achievement goal latent variables was represented by three parcels. Initial analyses included all possible paths between parent fear of failure and the achievement goals; nonsignificant paths were trimmed in the final analyses that are reported (Judd & Kenny, 1981). The direct model for mothers provided a good fit to the data, $\chi^2(76, N=139) = 99.41$, CFI = 1.00, TLI = 1.00, RMSEA = .047. The path from mother fear of failure to undergraduate performance-avoidance goals was significant, $\beta = .26$ ($p < .01$). The path from undergraduate gender to performance-approach goals was marginally

significant, $\beta = -.14$ ($p = .10$), indicating that men tended to adopt performance-approach goals more than women.

The direct model for fathers provided a good fit to the data, $\chi^2(75, N = 107) = 92.35$, CFI = 1.00, TLI = 1.00, RMSEA = .045. The path from father fear of failure to undergraduate performance-avoidance goals was significant, $\beta = .22$ ($p < .05$), as was the path from father fear of failure to undergraduate mastery goals, $\beta = -.40$ ($p < .01$). The path from undergraduate gender to performance-approach goals was marginally significant, $\beta = -.17$ ($p < .10$). This first set of analyses established direct relationships between parent fear of failure and undergraduate achievement goal adoption.

In the second set of SEM models, the role of undergraduate fear of failure as a mediator of these relationships was examined. All paths from parent and undergraduate fear of failure to the achievement goal variables were initially included in the model; nonsignificant paths were trimmed in the final analyses that are reported. The mediational model for mothers provided a good fit to the data, $\chi^2(130, N = 139) = 201.21$, CFI = .99, TLI = .99, RMSEA = .063. Consistent with the prior analyses, the path from mother fear of failure to undergraduate fear of failure was significant, $\beta = .33$ ($p < .01$); the path from undergraduate fear of failure to performance-avoidance goals was also significant, $\beta = .61$ ($p < .01$). The path from mother fear of failure to undergraduate performance-avoidance goals dropped from .26 to .05 (80.77%) and was no longer significant, indicating full mediation of the direct relationship. The z' test indicated that undergraduate fear of failure was a significant mediator of the relationship between mother fear of failure and undergraduate performance-avoidance goals, $z' = 2.92$ ($p < .01$). Several other paths were significant in the model: Undergraduate fear of failure was a positive predictor of performance-approach goals, $\beta = .20$ ($p < .05$), and was a negative predictor of mastery goals, $\beta = -.25$ ($p < .01$). As in the prior analyses, the path from undergraduate gender to performance-approach goals was marginally significant, $\beta = -.16$ ($p < .10$). (See Figure 2A for a pictorial representation of these mediational results).

The mediational model for fathers provided a good fit to the data, $\chi^2(129, N = 107) = 187.41$, CFI = .99, TLI = .99, RMSEA = .065. Consistent with the prior analyses, the path from father fear of failure to undergraduate fear of failure was significant, $\beta = .26$ ($p < .05$). The path from undergraduate fear of failure to performance-avoidance goals was also significant, $\beta = .62$ ($p < .01$), as was the path from undergraduate fear of failure to mastery goals, $\beta = -.22$ ($p < .05$). The path from father fear of failure to undergraduate performance-avoidance goals dropped from .22 to .03 (86.36%) and was no longer sig-

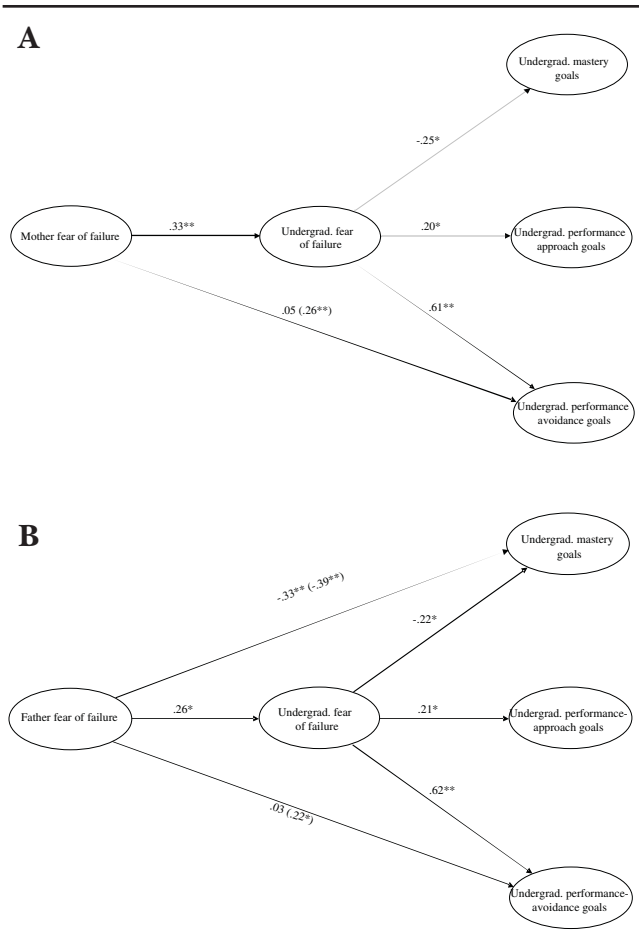


Figure 2 The child fear of failure mediational results for mothers (A) and fathers (B).

NOTE: Only theoretically central constructs are included in the figures for presentation clarity. All constructs were represented as latent variables, and the coefficients in the figures are standardized estimates. The standardized estimates in parentheses are those from the direct relationship models. Undergrad. = undergraduate.
* $p \leq .05$. ** $p \leq .01$.

nificant, indicating full mediation of the direct relationship. The z' test indicated that undergraduate fear of failure was a significant mediator of the relationship between father fear of failure and undergraduate performance-avoidance goals, $z' = 2.11$ ($p < .01$). The path from father fear of failure to undergraduate mastery goals dropped from $-.40$ to $-.33$ (15.39%); this path remained significant ($p < .01$), indicating partial mediation of the direct relationship. The z' test indicated that undergraduate fear of failure was a significant mediator of the relationship between father fear of failure and undergraduate mastery goals, $z' = 1.52$ ($p < .01$). In addition to these mediational relationships, undergraduate fear of failure was a positive predictor of performance-approach goals in the model, $\beta = .21$ ($p < .05$), and the path from undergraduate gender to performance-

approach goals was marginally significant, $\beta = -.18$ ($p < .10$). (See Figure 2B for a pictorial representation of these mediational results.)⁴

In sum, the love withdrawal mediational model received strong support for mothers but not for fathers. The undergraduate fear of failure mediational model was supported for both mothers and fathers with respect to performance-avoidance goal adoption. For fathers, this model was additionally validated with respect to the adoption of mastery goals.

GENERAL DISCUSSION

The present research yielded strong support for our hypotheses regarding the intergenerational transmission of fear of failure. In Study 1, parent-undergraduate concordance in fear of failure was documented for both mothers and fathers. This fear of failure concordance was documented controlling for parents' and undergraduate's impression management and self-deceptive enhancement response tendencies. In Study 2, the fear of failure concordance that was observed in Study 1 was replicated using latent fear of failure variables. Furthermore, love withdrawal was validated as a mediator of parent-undergraduate concordance in fear of failure for mothers. Mothers' fear of failure was linked to their use of love withdrawal (as reported by undergraduates); this love withdrawal, in turn, was linked to fear of failure in their undergraduate children, and the process accounted for a significant portion of the direct relationship between mother and undergraduate fear of failure. Fathers' fear of failure was found to be unrelated to love withdrawal, thus precluding mediation.

We not only documented the intergenerational transmission of fear of failure—and, for mothers, an important mediational process through which this transmission takes place—but also demonstrated the ramifications of this transmission for self-regulation in an actual (and highly important) achievement setting. Mothers' fear of failure and fathers' fear of failure were positive predictors of their undergraduate's adoption of performance-avoidance goals in the classroom, and fathers' fear of failure was a negative predictor of their undergraduate's mastery goal adoption. Each of these relationships was shown to be mediated by the undergraduate's fear of failure.

The findings from the present research are troubling in that they demonstrate the passing of a negative, aversive motive disposition from one generation to the next. Intrapsychically, fear of failure is self-perpetuating (Heckhausen, 1975)—it often evokes avoidance behavior (e.g., selecting oneself out of difficult tasks) that keeps the individual from experiencing failure, thereby reinforcing the tendency toward avoidance. Our research shows that intergenerationally, fear of failure is

also self-perpetuating—fear of failure in one generation tends to replicate itself in the next generation. This transmission of the negative from parent to child parallels the work on cycles of child maltreatment and substance abuse that have been well-documented in the intergenerational transmission literature (see Putallaz et al., 1998). Fear of failure is certainly less overt in its devastation than these ills; nevertheless, over time, it exacts a heavy toll in terms of missed opportunities for learning, reduced achievement trajectories, and compromised psychological and physical well-being (Covington, 1992; Elliot & McGregor, 1999; Elliot & Sheldon, 1997). Future research would do well to investigate the intergenerational transmission of other motivational constructs, including those that are appetitive in nature (e.g., need for achievement).

Our mediational analyses indicated that fear of failure is transmitted through the use of love withdrawal, a socialization technique typically studied with regard to moral and prosocial behavior. Research on love withdrawal indicates that it is construed in extremely negative terms by children (even more negatively than physical punishment) (Siegal & Barclay, 1985), and several studies have shown that it is highly effective in gaining compliance from children (Aronfreed, 1968; Chapman & Zahn-Waxler, 1982; Grusec, 1966). The efficacy of love withdrawal in socialization may lead some to advocate its use (Aronfreed, 1968; Sears et al., 1957), but our results implicating love withdrawal as a predictor of undergraduate's fear of failure suggest the need to take a broader perspective. Love withdrawal may have desired effects on children's behavior in the short run, but these short-term benefits would appear to come with steep long-term costs. Parental love is an indispensable resource to children, and love withdrawal and associated techniques that dispense affection and acceptance in contingent fashion are likely not only to produce fear of failure but to contribute to other maladaptive motivational constructs as well, such as helplessness (Burhans & Dweck, 1995).

Love withdrawal can be quite subtle and, we suspect, is often communicated without the parent's intent. For example, a common application of the widely endorsed "time out" technique is to send a child who has behaved in an undesirable manner to his or her room (or another location away from the parent's presence). Unless implemented in a caring fashion with a clearly articulated rationale, this removal from the parent's presence can be viewed by the child as a form of banishment and love withdrawal. This example highlights the central importance of the child's interpretation in the socialization process; as many theorists have argued, the child's perception of the parent's behavior is of paramount importance, more so than the parent's intention or actual

behavior (Cubis, Lewin, & Dawes, 1989; Lundberg, Perris, Schlette, & Adolfsson, 2000). Our results, however, at least for mothers, indicate that the reports of our undergraduates indeed corresponded to their parents' actual behavior. Specifically, and importantly, undergraduate's reports of their mothers' love withdrawal were systematically linked to their mothers' fear of failure, a link that would not materialize unless the undergraduates were at least somewhat accurate reporters of their mother's actual behavior.

The mediation of intergenerational transmission effects is often complex and multiply determined (Putallaz et al., 1998; Serbin & Stack, 1998), and it is undoubtedly the case that other processes besides love withdrawal are responsible for mother-child concordance in fear of failure. Indeed, this was suggested by the fact that love withdrawal partially, rather than fully, mediated the direct relationship. Other mediational candidates that could be explored in future research include controlling behavior (e.g., pressuring the child to avoid mistakes), overprotective behavior (e.g., allowing or even urging the child to quit when difficulties arise), and punitive behavior (e.g., responding to the child's failures and misbehaviors with verbal or physical aggression).

Fathers are commonly excluded from intergenerational transmission and socialization research, and when they are included, results for them are often less straightforward than are those for mothers (Garber, Robinson, & Valentiner, 1997; Serbin & Stack, 1998). In the present research, fathers' fear of failure, unlike that of mothers, was unrelated to their use of love withdrawal. One possibility for this null result is that fathers' fear of failure actually was related to their love withdrawal, but undergraduate's reports of their fathers' behavior were inaccurate. Inaccuracy of this sort could either emerge because fathers tend to be less overt in their expression of love and affection or because children, on average, spend less time with their fathers during childhood (Putallaz et al., 1998). Another possibility is that fathers' fear of failure prompted other behaviors, besides love withdrawal, that instilled fear of failure in their undergraduate children (see the additional mediators listed in the preceding paragraph). Documenting the processes that account for father-child concordance in fear of failure is, in our view, a high priority for future research.

One issue that warrants mention is the possibility that parent-child concordance in fear of failure involves genetic transmission to some degree. Our documentation of mediation clearly attests to the fact the fear of failure concordance is not simply a function of genes. Furthermore, in a recently completed study with first-, third-, and fifth-grade children and their parents, we (Elliot, Thrash, & Mapes, 2003) have found that fear of

failure concordance is present for mother-child pairs at fifth, third, and even first grade, whereas it is not yet present for father-child pairs at first, third, or even fifth grade. Unless fear of failure is a sex-linked trait, which is extremely unlikely, these data suggest a negligible role for genes in the intergenerational transmission of fear of failure. Nevertheless, future research on fear of failure concordance that directly addresses this issue would be welcomed.

Our findings linking mothers' and fathers' fear of failure to their undergraduate children's achievement goal adoption are intriguing because they indicate that children carry the "motivational baggage" (Stipek, 1996) of their parents with them into specific achievement settings. Our mediational findings demonstrated that undergraduate's fear of failure was the proximal predictor of their achievement goal adoption; parents exerted an indirect influence on this achievement goal adoption by contributing to the development of their undergraduate's fear of failure. In essence, by transferring fear of failure to their children, parents saddle their children with a dispositional burden that they must carry with them into each new achievement situation and that affects the goals they choose to pursue in these achievement settings.

A limitation of the present research is the use of retrospective reports of parental behavior. Recent research has bolstered confidence in the validity and utility of such reports (Brewin, Andrews, & Gotlib, 1993; Lundberg et al., 2000), and, as noted above, the link between mothers' reports of fear of failure and their undergraduate children's reports of maternal love withdrawal attest to the validity of these data. Nevertheless, prospective longitudinal designs, although quite rare (Holden & Zambarano, 1992; Serbin & Stack, 1998), remain the ideal. Furthermore, it would be optimal in future research to include parent reports of their socialization behavior, to document the degree to which parent and child reports are consistent, and to produce similar empirical patterns. It is also important to note that the relationships established in the present research are correlational in nature and were observed with university-based samples. Accordingly, definitive conclusions regarding causality or the generalizability of the findings are not warranted.

An important aspect of the present research is that it clearly highlights the need to simultaneously attend to two domains of motivation and behavior that are typically studied in isolation—the achievement domain and the affiliation domain. Central to our analysis of fear of failure is the premise that an individual's affiliative experiences have a deep and long-lasting influence on the person's competence-relevant motivation. Indeed,

although fear of failure is commonly described as an achievement motive, we have portrayed it as an inherently relational, as well as competence-based, disposition.

Several theorists have argued that the natural and optimal form of achievement motivation is appetitive—the desire to be competent in one's actions, skills, and abilities (Elliot, McGregor, & Thrash, 2002; White, 1959). From this perspective, aversive achievement motivation represents a bastardization of this natural form of achievement motivation, reorienting the individual away from a desire to attain competence and toward a self-protective preoccupation with avoiding incompetence. Our research suggests that it is when achievement motivation becomes intermingled with affiliative concerns that it becomes reoriented in this fashion. Poignantly, our research also demonstrates that it is parents who play a central role in this reorienting process.

NOTES

1. Some undergraduate participants, in this study and in Study 2, did not send (or have sent) a questionnaire packet to one of their parents for various reasons, including lost contact with the parent, the parent was deceased, and unstated personal issues.

2. In ancillary analyses, we examined fear of failure concordance, testing mother and father fear of failure as independent, interactive, and combined predictors of undergraduate fear of failure. Only families in which both parents had complete data could be included in these analyses. To examine the independent and interactive influence of mother and father fear of failure, we regressed undergraduate fear of failure on mother fear of failure, father fear of failure, and their interaction; to examine the combined influence of mother and father fear of failure, we summed the mother and father fear of failure scores and computed the correlation between this omnibus variable and undergraduate fear of failure. These analyses revealed that mother fear of failure ($\beta = .19, p < .05$) and father fear of failure ($\beta = .20, p < .05$) were independent, but not interactive ($p > .75$), predictors of undergraduate fear of failure; the combined influence of parent fear of failure was stronger than either independent influence ($\beta = .29, p < .01$). All of these relationships were essentially identical when controlling for response tendencies. We also conducted ancillary analyses in which the primary analyses were repeated while controlling for family status (two-parent vs. single-parent family). No significant family status relationships were observed, and the results reported in the text remained the same.

3. The achievement goal data were collected in the context of a larger project. None of the analyses or findings reported in the text have been reported in prior work.

4. As in Study 1, we conducted ancillary analyses to examine fear of failure concordance, testing mother and father fear of failure as independent, interactive, and combined predictors of undergraduate fear of failure. To afford examination of interactive relationships, we conducted multiple regression analyses using composite fear of failure variables (created with standardized scores) rather than structural equation modeling (SEM) analyses with latent variables. These analyses revealed that mother fear of failure ($\beta = .27, p < .01$) and father fear of failure ($\beta = .23, p < .05$) were independent but not interactive ($p > .28$) predictors of undergraduate fear of failure; the combined influence of parent fear of failure was stronger than either independent influence ($\beta = .36, p < .01$). Also as is Study 1, we conducted ancillary analyses in which the primary analyses were repeated while controlling for family status. No significant family status relationships were observed, and the results reported in the text remained the same.

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