

Love and Work: An Attachment-Theoretical Perspective

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The possibility that love and work in adulthood are functionally similar to attachment and exploration in infancy and early childhood was investigated. Key components of attachment theory—developed by Bowlby, Ainsworth, and others to explain the role of attachment in exploratory behavior—were translated into terms appropriate to adult love and work. The translation centered on the 3 major types of infant attachment and exploration identified by Ainsworth: secure, anxious/ambivalent, and avoidant. Two questionnaire studies indicated that relations between adult attachment type and work orientation are similar to attachment/exploration dynamics in infancy and early childhood, suggesting that the dynamics may be similar across the life span. Implications for research on the link between love and work are discussed, as are measurement problems and other issues related to future tests of an attachment-theoretical approach to the study of adults.

Tolstoy, in a letter to Valerya Aresenyev, November 9, 1856, said, "One can live magnificently in this world if one knows how to work and how to love . . ." (Troyat, 1967, p. 158). Freud is purported to have said that the goal of psychotherapy is to allow the patient to love and to work (Erikson, 1963). The themes of love and work are central to some of the most influential theories of psychological well-being (e.g., Erikson, 1963; Maslow, 1954; Rogers, 1961); their importance for healthy functioning has been empirically documented (e.g., Baruch, Barnett, & Rivers, 1983; Gurin, Veroff, & Feld, 1960; Lee & Kanungo, 1984; Vaillant, 1977). Study after study has shown that satisfaction in one domain is associated with satisfaction in the other. But how are love and work related? What is the nature of the connection?

We ask this question in the context of a program of research on love (Hazan & Shaver, 1987; Shaver & Hazan, 1987, 1988; Shaver, Hazan, & Bradshaw, 1988), which we have studied from the perspective of attachment theory (Bowlby, 1969, 1973, 1980, 1988). As we have argued elsewhere (e.g., Shaver & Hazan, 1988), attachment theory has several advantages over other contemporary approaches to love. Of particular interest here is the fact that attachment theory is not limited to love. It explains

where and how love fits into the broader context of human functioning.

Just as studies of love generally ignore its relation to work, studies of work tend to ignore its relation to love. Research on work has focused primarily on aspects of the work environment that influence job satisfaction (e.g., Fiedler, 1967; Kohn & Schooler, 1973; Levinson, 1969; Parker, 1983), for the most part ignoring possible links between satisfaction with work and satisfaction with relationships (see Piotrkowski, 1978, for an exception). Work lives and love lives have been treated largely as nonoverlapping, a perspective Kanter (1977) called the "myth of separate worlds."

In the present article, we suggest that attachment theory can accommodate both love and work in a natural way. We argue that work is functionally similar to what Bowlby calls "exploration," that adult attachment supports work activity just as infant attachment supports exploration, and that the balance between attachment and exploration associated with healthy functioning early in life is, in important respects, similar to the love/work balance that marks healthy functioning in adulthood. By extending our research on adult attachment to include exploration, we hope to elucidate the role of love in adult life, to explain some of the links between love and work, and to further demonstrate the explanatory and integrative power of attachment theory.

Attachment and Exploration

According to Bowlby, attachment and exploration are linked as follows: To learn about and become competent at interacting with the physical and social environment, one must explore. But exploration can be tiring and even dangerous, so it is desirable to have a protector nearby, a haven of safety to which one can retreat. According to attachment theory, the tendency to form an attachment to a protector and the tendency to explore

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the environment are innate tendencies regulated by interlocking behavioral systems. The exploration system can function optimally only when the attachment system is relatively quiescent, namely, when an attachment figure feels sufficiently available and responsive (a state that Ainsworth, Blehar, Waters, & Wall, 1978, refer to as having a "secure base" and that Sroufe & Waters, 1977, call "felt security"). In other words, attachment needs are primary; they must be met before exploration can proceed normally.

The theorized link between attachment and exploration was initially tested by Ainsworth et al. (1978), who identified three patterns of infant attachment: secure, avoidant, and anxious/ambivalent. Secure infants match Bowlby's conception of nature's prototype in terms of both secure attachment to a caregiver and ability to use the caregiver as a secure base for exploration. Secure infants in Ainsworth et al.'s studies had mothers who were consistently sensitive and responsive to their signals and so could confidently explore their environment. (See Main, 1983, for further details concerning the secure toddler's exploratory behavior.)

The typical mother of an anxious/ambivalent infant exhibited inconsistency in responding to her infant's signals, being sometimes unavailable or unresponsive and at other times intrusive. In the Ainsworth Strange Situation, these infants were preoccupied with their mother's availability, and this preoccupation precluded exploration.

Mothers of avoidant infants appeared rejecting and tended to rebuff or deflect their infants' bids for proximity, especially for close bodily contact. In the laboratory setting, these infants did not seek contact with their mothers at times when the attachment system would ordinarily be intensely activated. Instead, they kept their attention directed toward toys, apparently to suppress attachment behavior and avoid seeking contact with mother. According to Ainsworth et al. (1978), they "turn to the neutral world of things, even though displacement exploratory behavior is devoid of the true interest that is inherent in non-anxious exploration" (pp. 319-320).

Love and Work

In our preliminary studies of romantic love conceptualized as an attachment process (Hazan & Shaver, 1987), we attempted to identify adult versions of the three patterns of attachment by translating Ainsworth et al.'s (1978) descriptions into terms appropriate for adult love. The proportions of the three types were similar to those obtained in studies of American infants (summarized by Campos, Barrett, Lamb, Goldsmith, & Stenberg, 1983) and similar across our own studies: Just over half of the subjects endorsed the secure attachment type; the rest split fairly evenly between the two insecure categories, always with slightly more in the avoidant group. Similar proportions have been obtained in studies by independent researchers using our measures in the United States, Israel, and Australia (e.g., Feeny & Noller, 1990; Levy & Davis, 1988; Mikulincer, Florian, & Tolmacz, 1990).

In general, our studies have supported an attachment-theoretical approach to the study of adult love. Attachment types relate in the manner predicted by theory to the way love is experienced, to expectations (or internal working models) concerning

love relationships, and to memories of childhood relationships with parents. (For details, see Hazan & Shaver, 1987.)

Adult work activity can be viewed as functionally parallel to what Bowlby calls exploration: For adults, work (like early childhood play and exploration) is a major source of actual and perceived competence. Adults' tendencies to seek and maintain proximity to an attachment figure and to move away from that figure in order to interact with and master the environment are expressed, among other ways, in romantic love relationships and in productive work. We are not claiming that all or even most jobs are well suited for maintaining interest and competence, but at this point in human evolution and cultural organization, work necessarily provides one of the major opportunities for exploration and mastery. Moreover, although today's jobs may be far from ideal, they do offer important gratifications for adults, as evidenced by the high proportion of people holding both low- and high-prestige jobs who say they derive satisfaction and a sense of accomplishment from their work (Robinson, 1984).

Hypotheses

Just as attachments can be more or less healthy or secure, so can forms of work. In the same way that Ainsworth et al.'s (1978) avoidant infants appeared to explore to avoid seeking contact with their mothers, adults can approach their work compulsively or use it as a distraction from relational deficiencies. For someone with anxious/ambivalent proclivities, work can be viewed as an opportunity to satisfy attachment needs, a sideline that may interfere with job performance. On the basis of the documented attachment/exploration links in infancy and early childhood and of attachment theory's predictions concerning the dynamics of these two behavioral systems, a number of hypotheses can be derived, concerning the likely relations between attachment and exploration in adulthood.

Hypothesis 1

Securely attached subjects will report a secure orientation to work. This orientation will include high (relative to those of insecurely attached subjects) ratings of work success and satisfaction, fewer work-related fears and worries concerning performance and evaluation by co-workers, and work habits that do not jeopardize health or relationships. Secure explorers, at any age, should be able to reap the most rewards from exploratory activity because they are not distracted by concerns over unmet attachment needs and do not explore primarily for the sake of pleasing or avoiding others.

Hypothesis 2

Anxious/ambivalently attached youngsters are typically too concerned with maintaining proximity to their caregivers to explore effectively. As these children develop, they may learn to use exploration as a means for achievement designed to attract the caregiver's attention and approval. Exploration then becomes a means of satisfying unmet attachment needs. Moreover, exploring merely as a means to win others' praise leaves a person vulnerable to feeling underappreciated.

We predict, therefore, that anxious/ambivalent attachment will be associated with an orientation to work that includes a preference for working with others rather than alone, a tendency to become overobligated as a way of pleasing others combined with feeling that one's own contribution is underappreciated, daydreaming about success and praise, and fearing failure and loss of esteem. Beyond affecting these social aspects of work, preoccupation with attachment concerns should be distracting and associated with inability to finish work projects, difficulty meeting deadlines, and poorer work performance.

Hypothesis 3

Like the avoidant infant, the avoidant adult will use exploration primarily as a means of keeping busy, avoiding uncomfortable interactions with others, and avoiding anxiety associated with unmet attachment needs. Because avoidant exploration is believed to reduce anxiety, avoidant people should be reluctant to stop working, to finish projects, or to take vacations (all nonsocial manifestations of avoidance). Avoidant attachment should be associated with exploratory behavior characterized by a preference for working alone, using work as an excuse to avoid socializing, and a compulsive approach to tasks that includes working during vacations, feeling nervous when not working, and working at the expense of health and relationships.

In addition to our interest in possible links between attachment and work, we want to investigate the effect of attachment on well-being more generally. We expect secure attachment, in relation to insecure attachment, to be associated with higher levels of physical and psychological health.

These hypotheses were tested in two related studies with overlapping subject samples. The first study examined the relation between attachment type and work orientation, assessed with measures taken from the research literature on work. This study was conducted to relate our hypotheses to an already existing body of work-related measures and findings. The second study was conducted in order to test our theory-based hypotheses more precisely.

Study 1

Study 1 involved publication of a love and work questionnaire in the Sunday magazine supplement of one of Colorado's largest circulation newspapers, the *Denver Post*. The overarching goal was to see if attachment type was related to exploration, here conceptualized as work orientation, in ways predicted by attachment theory.

Method

Subjects. Analyses reported here are based on the first 670 of over 1,000 replies received within 1 week following publication of the questionnaire. (The major findings were stable after the first few hundred, so additional replies were not keypunched.) Of the 670 replies, 143 were from men, 522 were from women, and 5 were from respondents who did not report their sex. The subjects ranged in age from 18 to 79, with a median age of 38 and a mean of 39 years. Average household income was \$30,000 to \$40,000; average education level was "gradu-

ated college." Ninety-six percent were heterosexual, 3% homosexual, and 1% bisexual. Forty-nine percent were married at the time of the survey (including those who were remarried); 27% were single; 25% were divorced or separated; 10% were "living with a lover"; and 3% were widowed. (Some respondents checked more than one category.)

Measures and procedure. The survey questionnaire, mentioned on the front page of the magazine, was titled "Loving/Working: Are they related? Tell psychologists your insights."

The measure of attachment type, described more fully by Hazan and Shaver (1987), offered respondents three answer alternatives, of which they were to choose the one that best described their feelings: (a) "I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being" (the avoidant type). (b) "I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me, I want to get very close to my partner, and this sometimes scares people away" (the anxious/ambivalent type). (c) "I find it relatively easy to get close to others and am comfortable depending on them. I don't often worry about being abandoned or about someone getting too close to me" (the secure type). The attachment-type measure appeared after a measure of "most important love experiences" described by Hazan and Shaver (1987). This placement was designed to make love experiences salient before assessing attachment type.

Next came 21 items adapted from the existing literature on job satisfaction (e.g., Baruch et al., 1983; Crosby, 1984; Levinson, 1969; Parker, 1983; Smith, Kendall, & Hulin, 1969), covering such issues as job security, satisfaction with salary and co-workers, and opportunities for challenge. Subjects were asked to indicate, by circling 1, 2, 3, or 4 (indicating a range of responses from *not at all* to *extremely*) the extent to which they felt satisfied (or dissatisfied, in the case of 10 of the items) with each. This part of the questionnaire was followed by 8 individual questions concerning overall job satisfaction (response alternatives ranged from *extremely satisfied* to *extremely dissatisfied*); subject's perception of own work performance (*excellent* to *not very good*); judgment of co-workers' perception of subject's work performance (*excellent* to *not very good*); experience of romantic "crushes" on co-workers (*no, never* to *yes, it happens often*); experience of romantic affair(s) with co-workers (*no, never* to *yes, it happens often*); the degree to which relationship concerns interfere with work performance (*not at all* to *extremely*); the degree to which work concerns interfere with relationships (*not at all* to *extremely*); and the degree to which subject and partner have work-related arguments or disagreements (*not at all* to *extremely*).

For the next six items, subjects were asked to circle either "my relationship" or "my work" in relation to the following: which is more important, which usually brings the most pleasure, which usually brings the most pain, which has the greatest effect on overall life satisfaction, which (if forced to) would the subject choose, and which is considered to be primary. Next was a 14-item checklist measure of leisure activities, which was included in case such activities provided major avenues of exploration for some people. For the first half, subjects were asked to indicate, by circling items on an activity list (e.g., socializing, exercising, resting), how they spend their free time. For the second half, they were asked to say what they get from leisure activities, again by circling one or more items from a list of seven (e.g., renewed ties with others, improved health, relief from stress). This was followed by a 22-item symptom checklist used by Rubenstein and Shaver (1982) in a national study of loneliness.

The final section of the questionnaire focused entirely on demographic issues, such as age, marital status, educational background, income, religious affiliation, and occupation. The survey ended with a request for additional comments (the majority of respondents attached notes or letters) and an invitation to participate in a follow-up study, to

which 58% responded by providing their name and telephone number. Subjects were asked to mail their replies to the *Denver Post* within 1 week.

Results and Discussion

Attachment type. Half (50%) of the subjects classified themselves as secure, 19% as anxious/ambivalent, and 30% as avoidant. These proportions were similar to those obtained in three previous studies (Hazan & Shaver, 1987, Studies 1 and 2; Shaver & Hazan, 1987) in which the frequency of self-classification as secure ranged from 51% to 56%; that of anxious/ambivalent ranged from 19% to 21%; and that of avoidant ranged from 23% to 28%.

Sex differences. There were few sex differences. Men more often than women reported having romantic crushes (*once or twice vs. never*) on co-workers, $t(657) = 2.15, p < .05$; men reported having more frequent work-related arguments (*often vs. sometimes*) with their partners, $t(655) = 2.35, p < .05$; and on average, women were less well educated (*some college vs. graduated college*, $t(663) = 2.96, p < .01$) and had lower income (\$10,000 to \$20,000 vs. \$20,000 to \$30,000, $t(652) = 6.95, p < .001$).

Feelings about work. Hypotheses 1, 2, and 3 concerned the link between attachment type and work-related feelings and experiences. We predicted that each attachment type would be associated with a particular orientation to work which, in turn, would resemble the three patterns of exploration identified by Ainsworth et al. (1978). As an initial test of this hypothesized link, subjects were asked to indicate their degree of satisfaction and dissatisfaction on a number of items adapted from the research literature on work. Table 1 contains the mean item scores (each with a possible range of 1 to 4) for each attachment type, along with the F ratio from a one-way analysis of variance (ANOVA) on scores for each item. (An overall F that was based on all the items in the table was computed, using a multivariate analysis of variance procedure, or MANOVA, and proved to be highly significant: $F(42, 1218) = 2.05, p < .001$. We report ordinary ANOVAs in the table, rather than univariate F s that were based on the MANOVA, so as not to reduce the N s because of missing data.)

In line with Hypothesis 1, securely attached respondents reported relatively high levels of work satisfaction in terms of job security, co-workers, income, and opportunities for challenge and advancement. In line with Hypothesis 2, anxious/ambivalent attachment was associated with feelings of job insecurity, lack of appreciation and recognition by co-workers, and not getting desirable and deserved promotions. Compatible with Hypothesis 3, avoidantly attached respondents reported dissatisfaction with co-workers but were similar to secure respondents in their satisfaction with job security and opportunities for learning.

The differences among the attachment types in work-related feelings were generally small but in line with predictions. There is little in the descriptions of the attachment types that necessitates any particular pattern of responses on the work items, so the results are unlikely to be due to a mere semantic expansion of the independent variable. In addition, these work items, unlike the ones to be discussed later in connection with Study 2,

Table 1
Mean Scores for Items Concerning Satisfaction/
Dissatisfaction With Work

Item	Attachment type			$F(2, 658)$
	Avoidant	Anxious/ ambivalent	Secure	
Happy with				
Job security	2.76 _{ab}	2.56 _a	2.91 _b	6.79***
Recognition	2.49 _a	2.41 _a	2.65 _b	3.58*
Co-workers	2.78 _a	2.88 _{ab}	3.08 _b	9.34***
Helping others	2.94 _a	3.01 _{ab}	3.19 _b	6.47***
Competence	3.11 _a	3.14 _a	3.28 _b	2.93
Variety	3.07 _a	2.87 _b	3.10 _b	3.02*
Learning	2.93 _a	2.62 _b	3.00 _a	6.43***
Working on own	3.36	3.39	3.45	0.88
Income	2.59	2.42	2.53	1.00
Advancement	2.10 _{ab}	2.01 _a	2.27 _b	3.67*
Challenge	2.85 _{ab}	2.67 _a	2.95 _b	3.42*
Unhappy with				
Too much work	2.01	1.86	1.84	2.35
No challenge	1.97	1.97	1.81	1.99
Job security	1.83 _a	2.13 _b	1.64 _a	12.30***
Job conflicts	1.82	1.97	1.75	2.54
Advancement	2.20 _a	2.32 _a	1.92 _b	8.61***
Recognition	2.18 _{ab}	2.36 _a	1.99 _b	6.42***
Variety	1.80	1.89	1.67	2.58
Income	2.07	2.32	2.07	2.91
Advancement	2.22 _a	2.34 _a	2.08 _b	3.08*
Co-workers	1.77 _a	1.64 _{ab}	1.53 _b	6.03**

Note. Multivariate analysis of variance results for items in this table are reported in the text. Within each row, means with different subscripts differ significantly at $p = .05$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

were not derived from attachment theory but were taken directly from studies of work. The pattern of differences, therefore, supports the claim that attachment type is related to feelings about work.

We predicted that the different attachment types would differ in overall job satisfaction and the balance between love and work. Table 2 contains the mean item scores for each attachment type and the results of a one-way ANOVA on scores for each item. (A MANOVA including all items in the table yielded a highly significant overall effect of attachment type: $F(28, 1,130) = 3.84, p < .001$.) Secure respondents reported higher overall work satisfaction, felt that they were good workers, and were confident that co-workers evaluated them highly. In contrast, anxious/ambivalent respondents expected co-workers to undervalue them, and avoidant respondents gave themselves lower ratings on job performance and expected similarly low ratings from co-workers.

In terms of the balance between love and work, secure attachment was associated with placing a higher value on, and deriving more pleasure from, relationships than work. Secure subjects were also most likely to say that if forced, they would choose relationship success over work success. This fits with the notion that security is related to valuing and enjoying relationships. Anxious/ambivalent respondents were most likely to claim that love concerns interfere with work, perhaps referring

Table 2
Mean Scores and F Ratios for Items Concerning Work-Related Feelings and Experiences

Items	Attachment type			F (2, 658)
	Avoidant	Anxious/ ambivalent	Secure	
Overall work satisfaction (6-pt.)	4.19 _a	4.15 _a	4.53 _b	9.02***
How good are you at work? (5-pt.)	4.26	4.40	4.40	3.91*
How good would co-workers say you are? (5-pt.)	4.28 _a	4.26 _a	4.42 _b	4.88**
Had crush on co-worker? (4-pt.)	1.67	1.79	1.62	2.70
Had affair with co-worker? (4-pt.)	1.48	1.59	1.45	1.67
How much does love interfere with work? (4-pt.)	1.77 _a	1.86 _a	1.63 _b	7.19***
How much does work interfere with love? (4-pt.)	1.98	1.94	1.92	0.50
Argue with partner about work? (4-pt.)	1.51	1.55	1.50	0.22
Which is most important, work or relationship? (2-pt.)	1.62 _a	1.67 _a	1.81 _b	12.34***
Which gives most pleasure, work or relationship? (2-pt.)	1.64 _a	1.71 _a	1.82 _b	11.25***
Which causes most pain, work, or relationship? (2-pt.)	1.47 _a	1.67 _b	1.37 _a	17.58***
Which has greatest effect on overall happiness? (2-pt.)	1.59 _a	1.70 _{ab}	1.77 _b	9.36***
Which would you choose? (2-pt.)	1.75 _a	1.79 _{ab}	1.87 _b	6.59***
Which is more true, work supports love or love supports work? (2-pt.)	1.29 _a	1.19 _{ab}	1.16 _b	6.00**

Note. Multivariate analysis of variance results for items in this table are reported in the text. Within each row, means with different subscripts differ significantly at $p = .05$. A high score on the 2-point scales indicates the love relationship alternative, except for the last scale, in which a high score indicates agreement with "work supports love."

* $p < .05$. ** $p < .01$. *** $p < .001$.

to the kind of preoccupation with attachment needs that inhibits exploration. Attachment theory makes no predictions about the possible effects of exploration on attachment, and interestingly, the three attachment types did not differ in rate of reporting that concerns about work interfere with romantic relationships. Nor did the groups differ in their propensity to argue with love partners about work. Anxious/ambivalent subjects were also slightly, although not significantly, more likely to report romantic interest in co-workers. In addition, this group reported experiencing more pain in relation to love than to work. Avoidant respondents were most likely to emphasize the importance of work over love. For example, they were more likely to say they would choose work success over relationship success, that work has a greater overall effect on their happiness than do relationships, and that work success supports relationship success. Similar to avoidant infant explorers, avoidant adult workers tend to focus on work activity instead of relationships. In general, these findings lend additional support to the hypotheses.

Leisure activities. As stated earlier, not all jobs are well suited to provide the kind of challenge and stimulation typically associated with the term *exploration*, so subjects were also asked about activities outside of work (resting, socializing, exercising, shopping, traveling, and hobbies) and about what benefits they derive from leisure (improved health, relief from stress, renewed social ties, excitement, new knowledge, and sense of mastery). A MANOVA on the entire set of items proved signifi-

cant: $F(28, 1290) = 2.54, p < .001$. Although scores on the majority of the items were not related to attachment type, the few that were are worth mentioning. Avoidant subjects were least likely to say they spent their free time socializing (42% vs. 58% and 59% for the anxious/ambivalent and secure subjects, respectively) and least likely to say that leisure provided renewed social ties (34% vs. 54% and 57%). Anxious/ambivalent subjects were most likely to report that their leisure activities provide excitement (47% vs. 32% and 39% for the avoidant and secure types, respectively) and to report spending free time shopping (42% vs. 33% and 29%). (Shopping may be a form of immediate self-gratification; Rubenstein & Shaver, 1982, found that lonely people shop as one means of coping with negative feelings.) Avoidant subjects were least likely to report gaining new knowledge during free time (46% vs. 62% and 59% for anxious/ambivalent and secure subjects, respectively).

Well-being. The well-being measure used here was a symptom checklist previously used by Rubenstein and Shaver (1982) in a national study of loneliness. A principal-components analysis followed by equamax rotation was performed on the 22-item measure. Five factors had eigenvalues greater than 1.0. Items loading above .40 on one of the factors were analyzed for reliability, and the resulting coefficient alphas ranged from .52 for the Physical Illness factor to .89 for the Loneliness and Depression factor. Table 3 contains the results of a one-way ANOVA on the scale means for the three attachment types. Secure subjects were significantly less likely than insecure sub-

Table 3
Information and Mean Scores on 4-Point Symptom Scales

Scale	No. items	Attachment type			<i>F</i> (2, 658)
		Avoidant	Anxious/ambivalent	Secure	
Loneliness and Depression (crying easily, feeling hopeless)	8	2.02 _a	2.05 _a	1.49 _b	60.73*
Anxiety (Feeling nervous, worrying)	6	2.23 _a	2.16 _a	1.77 _b	42.87*
Hostility (Outbursts of temper, feeling irritable)	4	2.01 _a	1.94 _a	1.72 _b	16.64*
Psychosomatic Illness (Muscle tension, intestinal problems)	5	1.63 _a	1.57 _a	1.39 _b	19.50*
Physical Illness (Cold, flu)	4	1.85 _a	1.83 _a	1.65 _b	10.40*

Note. Within each row, means with different subscripts differ significantly at $p = .05$.

* $p < .001$.

jects were to report all five categories of symptoms. The results of Study 1 will be discussed more fully in the General Discussion section.

Study 2

The purpose of Study 2 was to pursue the effects of attachment type on work orientation, using items that were based on attachment theory and designed especially for this purpose.

Method

Subjects. Fifty-eight percent, or 387, of the 670 replies keypunched for Study 1 included a name and a telephone number. A supplementary questionnaire, to be described in the next paragraph, was mailed to the 290 respondents who, in addition, supplied a return address. They did not differ significantly from the larger sample in the prevalence of the three attachment types or in terms of sex, age, education, or average income.

Measures and procedure. A two-page love and work questionnaire was distributed by mail. It included one page of items concerning sexuality and caregiving (designed to pilot test measures for another research project) in addition to 35 work-related items derived from attachment theory and research. (These items are described in detail in a later section.) Responses to the 35 items were indicated by circling SD, D, A, or SA on a *strongly disagree to strongly agree* continuum. Subjects were asked to complete the questionnaire and return it within a week. A stamped, preaddressed envelope was included. Of the 290 questionnaires distributed, 260 were returned within a week, another 3 were returned by the post office for having an insufficient address, and 11 more arrived within a month, for a total return rate between 90% and 94%. Only the first 260 were keypunched.

It should be noted that these 260 subjects were not retested with the single-item attachment-type measure. Thus, the prediction of work items from attachment type extended over a period of more than 2 months.

Results and Discussion

The supplementary questionnaire items were designed to further test the predicted relationship between attachment and

work (conceptualized as exploration). A principal-components analysis followed by equamax rotation was performed on the 35-item measure. Nine factors had eigenvalues greater than 1.0 and appeared to the left of the elbow in a scree test. Of these nine factors, seven scales consisting of the items that loaded above .40 on one of the factors were analyzed for reliability; and items that reduced coefficient alpha were deleted from the scales. Table 4 contains the names of the seven factor-based scales and sample items, the number of items retained, coefficient alpha for each, and the results of one-way ANOVAs on the mean scale scores for the different attachment types. Some of the shorter scales had relatively low coefficient alphas but proved sufficiently reliable to reveal an association with attachment type. A MANOVA on the entire set of scales proved significant, $F(14, 456) = 4.32, p < .001$.

The secure orientation to work. The securely attached respondents reported a relatively positive approach to work. In line with Hypothesis 1, they are least likely to put off work, least likely to have difficulty completing tasks, and least likely to fear failure and rejection from co-workers. They report enjoying their vacations and not allowing work to jeopardize their relationships or health.

The anxious/ambivalent orientation to work. Anxious/ambivalent respondents exhibited a different pattern of responses on the work items. As predicted, they preferred to work with others, reported feeling misunderstood and underappreciated, were motivated by approval, and worried that others would not be impressed with their work performance or would reject them. As predicted, anxious/ambivalently attached subjects reported that interpersonal concerns interfered with productivity.

Not shown in Table 4 is a significant mean difference on the item "I don't like it when others try to become involved in my work." This item, which was not on any of the scales because it produced its own factor, was included to see whether anxious/ambivalent subjects, despite preferring to work with others, might resent others' intrusions into their work. (Ainsworth et al., 1978, characterized the mothers of anxious/ambivalent infants as intrusive.) The means on the feelings-about-intrusive-

Table 4
 Mean Scores and Information on 5-Point Work Scales Derived
 From Attachment Theory ($N = 260$)

Scale	Alpha	No. items	Attachment type			$F(2, 233)$
			Avoidant	Anxious/ambivalent	Secure	
Fears Failure/Disapproval Worries won't impress Fears rejection for poor work	.79	4	2.83 _a	2.88 _a	2.29 _b	10.98***
Prefers Working With Others Hates working alone Works better with others	.77	4	2.53 _{ab}	2.73 _a	2.41 _b	5.68**
Work Harms Health/Relationships Overwork harms self/others Work interferes with relationships	.74	4	2.50 _a	2.25 _a	1.93 _b	12.31***
Distracted/Preoccupied Puts off work Difficulty finishing projects	.69	6	2.15 _{ab}	2.36 _a	2.04 _b	5.43**
Feels unappreciated Work efforts misunderstood Work efforts unappreciated	.79	3	2.84 _{ab}	3.20 _a	2.51 _b	8.54***
Needs/Desires to Keep Busy Vacations are pleasureless Nervous when not working	.48	3	2.55 _a	2.37 _{ab}	2.13 _b	5.79**
Motivated by Approval Imagines praise Admiration is best reward	.45	3	3.11 _{ab}	3.25 _a	2.91 _b	3.55*

Note. Within each row, means with different subscripts differ significantly at $p = .05$.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

ness item were 2.67 for secure subjects, 3.05 for avoidant subjects, and 3.20 for anxious/ambivalent subjects, $F(2, 233) = 6.20, p < .01$.

The avoidant orientation to work. In line with Hypothesis 3, avoidant respondents were more likely to indicate that they feel nervous when not working and that work interferes with their relationships and health. (Although the difference between avoidant and anxious/ambivalent subjects on the Work Harms Health/Relationships Scale was not quite significant, it was significant for two of the scale's individual items: "Work interferes with relationships" and "work leaves no time for friends.") On the single item "I prefer to work alone," which did not fit with any of the scales, avoidant subjects obtained the highest score: 3.37, versus 3.09 for anxious/ambivalent subjects and 2.80 for secure subjects, $F(2, 233) = 4.36, p < .05$. Thus, according to avoidant subjects, work leaves little time for close relationships, and vacations are generally pleasureless.

Discriminant analyses. A question remains as to whether the differences are simply unidimensional, namely, simply a matter of security versus insecurity, rather than reflections of two distinct insecure patterns. Of 16 individual work items yielding significant differences among the three attachment groups, only 2 ("work leaves no time for friends" and "difficulty finishing projects") significantly distinguish the avoidant group from the anxious/ambivalent group. None of the multi-item scales in Table 3 distinguish significantly between the two insecure groups, although the two differ significantly from the secure group in distinctive ways. To address this issue and summarize differences among the three groups, two hierarchical dis-

criminant-function analyses were performed to assess predictability of membership in the three attachment categories from work variables. Subjects with no missing data on any of the variables involved ($N = 224$) were included in the analyses. In the first analysis, both discriminant functions (two being the maximum possible number, given three target groups) were statistically significant, with a combined $\chi^2(24, N = 224) = 78.35, p < .001$. After removal of the first function, $\chi^2(11, N = 224) = 32.38, p < .001$, for the second function. The first function accounted for 59.5% of the between-groups variability; the second accounted for a sizable 40.5%, indicating that the differences between groups are not reducible to a single security-insecurity dimension. As shown in Figure 1, the first discriminant function separated secure subjects from insecure subjects. The second function separated avoidant subjects from anxious/ambivalent subjects. As can be seen in Table 5, 54.7% of the avoidant subjects were classified correctly, as were 55.8% of the anxious/ambivalent subjects and 64.0% of the secure subjects, for an overall correct classification percentage of 59.6% (in a three-category system, chance accuracy is 33.3%).

Correlations of the 19 predictor variables with the two discriminant functions are shown in Table 6. Only correlations of .20 or above are shown. The items that best discriminated between secure and insecure subjects included (a) work leaves no time for friends, (b) work interferes with relationships, (c) fears work failure, (d) work efforts are misunderstood, (e) rejects others' involvement, (f) nervous when not working, (g) prefers to work alone, and (h) work is useful for avoiding social events.

Because the same items were used for both the discrimina-

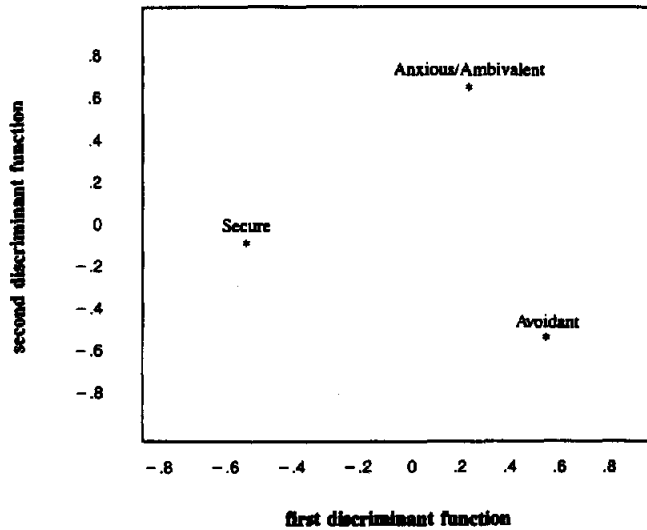


Figure 1. Plot of three group centroids on two discriminant functions derived from work items ($N = 260$).

tion between secure and insecure types, on the one hand, and the discrimination between the two insecure types, on the other hand, we conducted a second analysis to investigate more clearly the best discriminators between avoidant subjects and anxious/ambivalent subjects. The discriminant function was significant, $\chi^2(35, N = 113) = 26.56, p < .001$, and correctly classified 76.6% of the avoidant subjects and 63.5% of the anxious/ambivalents. Correlations of the 13 predictor variables (those with correlations of .20 or above) with the discriminant function are shown in Table 7. The items that best discriminated between the avoidant and anxious/ambivalent types, with positively correlated variables being those named more frequently by anxious/ambivalent subjects, included (a) difficulty finishing work projects, (b) work leaves no time for friends, (c) work efforts are misunderstood, (d) vacations are pleasureless, (e) work efforts are unappreciated, (f) work interferes with relationships, (g) works better with others, (h) slacks off after praise, (i) uses work to avoid social events, (j) gets overinvolved in tasks, (k) hates working alone, (l) prefers to work alone, and (m) daydreams about success. All of these findings were in line with theory-based predictions.

Summary and comments. The results can be summarized by saying that secure subjects generally do not worry about work failure or feel unappreciated. In addition, they generally

Table 5
Classification Results for the Discriminant Analysis

Actual group	Predicted group membership		
	Avoidant	Anxious/ambivalent	Secure
Avoidant	54.7%	17.2%	28.1%
Anxious/ambivalent	23.1%	55.8%	21.2%
Secure	18.4%	17.5%	64.0%

Table 6
Correlations Between Work Items and Discriminant Functions for the Entire Study 2 Sample ($N = 260$)

Item	Function 1	Function 2
Work leaves no time for friends	.54	-.34
Work interferes with relationships	.53	-.20
Fears work failure	.52	
Work efforts misunderstood	.44	.43
Rejects others' involvement	.43	.22
Nervous when not working	.42	
Prefers to work alone	.42	
Work useful for avoiding social events	.40	
Overwork damages self/significant others	.35	
Work efforts unappreciated	.35	.34
Worries about work performance	.34	
Vacations are pleasureless	.34	-.22
Worries others won't be impressed	.32	
Rejects advice for improving work	.24	
Fears rejection for poor work	.24	
Difficulty finishing projects		.58
Slacks off after praise		.25
Gets overinvolved in tasks	.21	.25
Overobligates self at work		.21

do not allow work to interfere with friendships or health and do take enjoyable vacations from work. Anxious/ambivalent subjects, in contrast, worry about their work performance, prefer to work with others but feel underappreciated and fear rejection for poor performance. They are also easily distracted, have trouble completing projects, and tend to slack off after receiving praise. Avoidant subjects prefer to work alone, use work to avoid having friends or a social life, and do not take enjoyable vacations from work.

Overall, the results of Study 2 support an attachment-theoretical approach to the study of love and work. There are three distinct patterns of feelings regarding work, and they are functionally similar to the three patterns of exploration seen in infancy and early childhood. Anxious/ambivalent attachment entails a preoccupation with attachment issues and an accompanying inability to focus on tasks, except when performance is

Table 7
Correlations Between Work Items and Discriminant Function for Avoidant and Anxious/Ambivalent Subjects ($n = 113$)

Item	Function 1
Difficulty finishing projects	.55
Work leaves no time for friends	-.43
Work efforts misunderstood	.34
Vacations are pleasureless	-.29
Work efforts unappreciated	.29
Work interferes with relationships	-.28
Works better with others	.27
Slacks off after praise	.25
Work useful for avoiding social events	-.24
Gets overinvolved in tasks	.24
Hates working alone	.21
Prefers to work alone	-.20
Daydreams about success	.20

perceived as an opportunity to work closely with others or to gain love and respect. Such distraction and preoccupation may be costly: Anxious/ambivalent subjects reported the lowest average income of the three groups—\$20,000 to \$30,000 compared with \$30,000 to \$40,000 for both the secure and avoidant subjects, $F(2, 644) = 24.83, p < .001$. The income difference is independent of the sex difference in income reported earlier, and is not due simply to education. Attachment type was related to educational level; the secure group reported a significantly higher level of education than did the two insecure groups ("graduated college" vs. "some college"), $F(2, 661) = 5.20, p < .01$. However, a three-way (Sex \times Education \times Attachment Type) ANOVA predicting income revealed no significant interaction between sex and attachment type, $F(2, 608) = 1.04, ns$, or between education and attachment type, $F(12, 608) = 1.39, ns$.

The relatively low income reported by anxious/ambivalent respondents may be interpreted in a number of ways. One possibility is that anxious/ambivalent people are more likely to hold low-status jobs. However, only 2 of the 12 occupational categories were significantly related to attachment type: Teachers were more likely to endorse the secure attachment type, and technicians—skilled workers were more likely to describe themselves as anxious/ambivalent. Attachment type was not related to occupational categories such as artist, housewife, manager, or professional. Another possibility is that insufficient income causes relationship dissatisfaction, which is reflected in the endorsement of an insecure attachment type. However, this interpretation does not explain why avoidant respondents had an average income equal to that of the secure group. A third interpretation is that anxious/ambivalent attachment actually interferes with job performance and productivity, as predicted by attachment theory.

Avoidant attachment is associated with a compulsive approach to activity that serves as a way of avoiding other people. This approach to work is costly in terms of overall well-being, if not in terms of income. In contrast, secure attachment seems to support the healthiest and most satisfying approach to work: one that results in success but without the personal and social costs of the other two types.

General Discussion

Three hypotheses concerning the relation between attachment–love and exploration–work in adulthood were derived from attachment theory and research. We assessed adult attachment type by using a single-item measure that asked subjects to choose the one description among three that best summarized their feelings and behavior in romantic love relationships. The descriptions were designed by translating into adult terms the three patterns of attachment observed by Ainsworth et al. (1978).

In line with Hypothesis 1, secure respondents approach their work with the confidence associated with secure attachment. They enjoy work activity and are relatively unburdened by fears of failure. And, although they value work, they tend to value relationships more and generally do not allow work to interfere with those relationships. Securely attached people typically do

not use work to satisfy unmet needs for love, nor do they use work to avoid social interaction.

In support of Hypothesis 2, anxious/ambivalent respondents reported that love concerns often interfere with work performance and that they frequently fear rejection for poor performance. They also reported a tendency to slack off following praise, which may indicate that their main motivation at work is to gain respect and admiration from others. Anxious/ambivalent respondents have the lowest average income of the three groups, even when differences in education are controlled.

Consistent with Hypothesis 3, avoidant respondents use work activity to avoid social interaction. They said that work interferes with having friends and a social life. Although they reported an average income equal to that of the secure group, they are less satisfied with their jobs. Nevertheless, they are least likely to take enjoyable vacations.

Secure attachment was also associated with greater overall well-being. In relation to insecure respondents, secure respondents are less likely to report suffering from loneliness and depression, anxiety, or irritability or are less likely to report having had colds or flu.

A number of limitations of our studies deserve discussion. First, the conceptualization of work as exploration may be too simple. Although work is probably the major form of exploratory behavior in adulthood, exploration could be manifested in other ways—for instance, in one's general approach to novelty and challenge in all domains of life. In addition, attachment type and orientation to work were treated more as traits than as products of unique person/situation interactions. Surely more objective features of the work environment, such as noise levels, power hierarchies, and leave policies also affect people's attitudes toward and satisfaction with their work.

Second, the work measures designed for these studies were necessarily exploratory, some had insufficient reliability, and a few failed to show the predicted associations with attachment type. Unfortunately, attachment theory in its present form does not make clear or precise predictions about adult exploration; thus, the hypotheses, as well as the measures, were derived by extrapolation from the theory and from the empirical literature on infancy and early childhood. Further research is needed before adult exploration can be measured more completely and reliably. Our aim in this pair of studies was to test the feasibility of an important extension of attachment theory into research on adulthood; the pattern of findings was sufficiently supportive of the theory to indicate the feasibility and desirability of more extensive research efforts. Eventually, such efforts will enable the formulation of a more powerful and complete theory of adult attachment.

Third, our single-item measure of attachment type also needs elaboration. Various alternatives have been proposed recently by Levy and Davis (1988), Collins and Read (1990), and Brennan, Hazan, and Shaver (1989). Note, however, that the single-item measure produced significant results in Study 2 despite more than a 2-month gap between its administration and the administration of items assessing orientation to work.

Another important issue concerns continuity and change. It is impossible to determine from the present studies whether there is continuity in attachment type or continuity only in the

relationship between attachment and exploration. Eventually, longitudinal research will be needed to assess the stability of attachment types and their effects on exploration. (See Hazan and Hutt, 1989, for preliminary findings.)

An important question that remains unanswered concerns how attachment type relates to actual work performance. The finding that anxious/ambivalently attached respondents had lower incomes than the other two groups of respondents may indicate that attachment type does affect work performance. Part of anxious/ambivalent attachment is a preoccupation with unmet attachment needs. It is possible that such preoccupation makes concentration on work more difficult and professional advancement less probable. Another possibility is that anxious/ambivalent respondents originally came disproportionately from lower socioeconomic backgrounds, an association compatible with findings reported by Egeland and Farber (1984).

One possible criticism of our previous work on adult attachment (e.g., Hazan & Shaver, 1987) is that the measures of attachment type, on the one hand, and of relationship experiences (e.g., trust, jealousy, desire for reciprocation), on the other hand, were part of a shared semantic network. The supposed dependent variables may have been logical extensions or elaborations of the independent variable (as happens so often in personality research). We think the present studies begin to counter that criticism. Little in the descriptions of the three attachment types necessitates any particular pattern of responses on many of the work items. For instance, items such as feeling distrustful of others and being reluctant to take vacations from work (both endorsed more frequently by avoidant respondents) are semantically dissimilar but closely connected through the theory. Other items—such as an inability to finish tasks, slacking off after praise, or daydreaming about success—also go beyond a mere semantic expansion of the anxious/ambivalent attachment-type description. Note also that the same three attachment groups have been derived from subjects' descriptions of childhood relationships with parents, features of adult love experiences (Hazan & Shaver, 1987), and now from orientation to work. This is an indication of the broad integrative power of the theory and the validity of the three types. No other social-psychological theory of love offers this kind of integrative breadth (Shaver & Hazan, 1988).

Scientists often treat love and work as two separate realms, but being deeply social creatures, humans cannot easily separate the two. Mental health, viewed as the abilities to love, to work, and to put the two in balance, is a coherent if complex state, as Freud may have implied when he linked *lieben und arbeiten* in describing the goals of psychotherapy. Attachment theory offers a way of explaining why love and work are so closely intertwined.

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