

The Inventory of Parent and Peer Attachment: Individual Differences and Their Relationship to Psychological Well-Being in Adolescence

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The results of two studies are reported. Study I involved the development of the Inventory of Parent and Peer Attachment (IPPA), a self-report instrument for use with adolescents. Subject were 179 college students aged 16-20 years. Item content of the instrument was suggested by attachment theory's formulations concerning the nature of feelings toward attachment figures. In Study II, the convergent validity of the IPPA was examined. Also, a hierarchical regression model was employed to investigate the association between quality of attachment and self-esteem, life-satisfaction, and affective status. Respondents were 86 adolescents from the Study I sample. As hypothesized, perceived quality of both parent and peer attachments was significantly related to psychological well-being. Results of the development of a theoretically focused, exploratory classification scheme indicated that adolescents classified as highly securely attached reported greater satisfaction with themselves, a higher likelihood of seeking social support, and less symptomatic response to stressful life events.

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INTRODUCTION

The relationship between ties to one's family and one's personality and well-being has long been a question of interest in developmental psychology. Recently, there has also been a growing recognition of the increasing importance of extrafamilial relationships through childhood and adolescence. In the present study, we examine the attachment relationships of late adolescents to their parents and peers, and explore their differential association to well-being.

Attachment is generally defined as an enduring affectional bond of substantial intensity. The central concern of attachment theory is the implication of optimal and nonoptimal social attachments for psychological fitness (Ainsworth, Blehar, Waters, and Wall, 1978; Bowlby, 1973a, 1977; Bretherton, 1985; Hinde, 1982; Sroufe, 1978, 1979). Bowlby's theoretical work (1969/1982, 1973b, 1980) conceptualizes the formation of attachments in infancy, and explains the emotional and psychological disturbances that may result at any age from their actual or threatened disruption. Organized patterns of behavior that develop and maintain affectional bonds are seen to persist throughout life, and to be activated in order to maintain or regulate some degree of proximity to highly discriminated persons. A sense of security is derived from the maintenance of a bond in which confidence in the availability (accessibility and responsiveness) of the attachment figure(s) predominates over fears concerning unavailability of this figure(s) in times of need. By contrast, anxiety, sadness, depression, and anger may be produced by the threatened or actual loss of attachment relationships, or by unresponsive and unpredictable attachment relationships. According to Bowlby's model (1973b), the child with secure attachment to principal care-givers carries an unconscious assurance that s/he has access to trustworthy, helpful others, and views him/herself as worthy of love and caring. Such a child is more likely to develop a balance of self-reliance and appropriate help-seeking capacities as s/he matures.

Bowlby (1969/1982) has concluded that human beings at any age are most well-adjusted when they have confidence in the accessibility and responsiveness of a trusted other. In his view, attachment across the life span may be inferred from a behavioral disposition to seek proximity to and/or contact with particular others, under conditions of vulnerability (fear, illness, etc.). With increasing age, behaviors promoting proximity to attachment figures become somewhat less intense and frequent, and symbolic communications (e.g. phone calls, letters) become increasingly effective in providing comfort. Despite such age-related changes in attachment behavior, expectations of attachment figures based on earlier experience are believed to persist and to influence the individual's mode of relating to others. Exam-

ples of aspects of "interactional styles" (Bretherton, 1985) that may develop from insecure attachment(s) are anxious "clinging" and resentful detachment.

Most research carried out within the framework of attachment theory has centered on the concept of security of attachment in early childhood. Observational research conducted by Ainsworth and her associates (1978) has demonstrated that individual differences in patterns of attachment behavior in infancy, as evidenced in the Ainsworth and Wittig (1969) Strange Situation, are reliably classifiable as "secure" and "insecure" ("ambivalent" or "avoidant"). Such differences show substantial stability under conditions of family and caretaking continuity (Ainsworth *et al.*, 1978; Vaughn, Egeland, Sroufe, and Waters, 1979; Waters, 1978). Security of attachment at one year has been shown to be related to ego strength and peer and social competence in the preschool years (Arend, Gove, and Sroufe, 1979; Easterbrooks and Lamb, 1979; Matas, Arend, and Sroufe, 1978; Waters, Wippman, and Sroufe, 1979).

There is a growing interest in extending the study of attachment beyond early childhood (Greenberg, Siegal, and Letch, 1984; Kahn and Antonucci, 1980; Lerner and Rytff, 1979). Weiss (1982) and Bretherton (1985) have argued that attachment beyond childhood is reflected in continuity in the organization of the individual's "perceptual-emotional system" or "internal working model." Weiss (1982) observes that, while there are increasing intervals during which parental accessibility is not necessary for adolescents' felt security, confidence in their parents' commitment to them remains crucial. His interview studies suggest that as adolescents mature the sense of security fostered by their parents becomes less due to their actual presence and more due to their capacities to function as competent allies. Clinical observation suggests that the ease with which adolescents cope with the conflicts involved in achieving independence from parents and identity formation is critically influenced by the elements of trusts, mutual respect, and good rapport in relationships with parents (Bloom, 1980; Blos, 1975).

As suggested by attachment theory, Weiss (1982) has found that adults' attachments to their peers are characterized by seeking out attachment figures when under duress, by experiencing anxiety when these figures are inaccessible, and by feeling comforted in their company. His research (1973, 1974) also suggests that attachment bonds are found only in those relationships perceived as emotionally significant. Similarly, Henderson (1977, 1982) has concluded that, rather than the actual availability of social relationships, it is the perceived adequacy of the adults' relationships, especially in the presence of adversity, that is most crucial in terms of the degree of risk of developing neurotic impairment.

During adolescence, attachment behavior is often directed toward non-parental (noncaretaking) figures (Weiss, 1982). While peers may not neces-

sarily be considered stronger or wiser (as per Bowlby's definition of childhood attachment), they may be considered such on a situational or temporary basis, as in adult peer relationships. Thus, certain peer relationships, especially beginning in adolescence, can be considered as a type of attachment relationship. In Weiss's view, a particularly important aspect of adolescent peer attachment is the peer's ability to support and encourage the adolescent's assumption of growth-promoting challenges.

As might be expected from the preceding theory, there is evidence of a strong link between the adolescent's intimate relationships and such outcomes as self-concept, psychological adjustment, and physical health (Bachman, Kahn, Mcdnick, Davidson, and Johnston, 1967; Cooper-Smith, 1967; Gallagher, 1976; Offer and Offer, 1975; Greenberg *et al.*, 1984; Thomas, Gecas, Weigart, and Rooney, 1974). In their study of 13- to 20-year-olds, Burke and Weir (1978) found that those adolescents expressing greater satisfaction with help received from peers, and particularly from parents, experienced greater psychological well-being. Rosenberg (1965) reported a stable relationship throughout adolescence between self-esteem and perception of warm relationships with parents. In college students, warm and autonomous relations with parents has been found to be associated with higher stages of ego-identity (Marcia, 1980), greater self-disclosure tendencies (Snoek and Rothblum, 1979), and, in freshman males, better predicted well-being in the senior year than did academic status and involvement in activities (Mortimer and Lorence, (1980).

Studies in which the influence of parents and peers on well-being is compared have focused primarily on self-esteem. In all studies, perceptions of parental relations were more highly related to self-esteem than were peer relations (Gecas, 1972; Greenberg *et al.*, 1984; O'Donnell, 1976). More research is needed, however, concerning the relative importance of relationships with parents and peers for well-being during late adolescence.

Despite the existing body of literature on the importance of these figures, currently there is no standardized self-report measure that assesses adolescent parent and peer relations using the conceptual framework of attachment theory. Attachment theory provides a rich source of hypotheses concerning ontogenetic continuity and change and individual differences in attachment, and their relationships to other aspects of intrapsychic and interpersonal functioning. The development of an attachment instrument would assist in testing alternative hypotheses regarding the relative importance of different figures for psychological well-being in adolescence and early adulthood.

The multidimensional character of attachment is implicit in attachment theory and research (Parkes and Stevenson-Hinde, 1982). Two major dimensions of attachment are suggested by the literature: behavioral aspects and affective/cognitive aspects (cf. Hinde, 1982). Observational studies of in-

fants assess the former dimension, from which affective experience is inferred. As cognitive capacities increase, attachment behavior is theorized to be guided by cognitively based "working models" of attachment figures. The use of a self-report instrument to assess adolescent attachment, rather than an observational procedure, could tap not only behavioral elements of adolescents' proximity seeking and support seeking, but also the affectively toned cognitive expectancies that are part of the "internal working model" the individual has of attachment figures (Bretherton, 1985). These two dimensions could be expected to be correlated. The use of self-report reflects the view that attachment represents aspects of a relationship from the point of view of one individual in the dyad, in this case, the adolescent (Hinde, 1982; Henderson, Byrne, and Duncan-Jones, 1981).

Following Bowlby's attachment theory, Greenberg and his colleagues (1984) developed a self-report measure of the behavioral and affective/cognitive dimensions of adolescents' attachment to their parents and peers. Their findings that 12- to 19-year-old adolescents' attachments to both parents and peers were related to self-esteem and life satisfaction (correlation coefficients were between .30 and .40) suggest the role of attachments in psychological well-being, as postulated by attachment theorists. While Greenberg's measure provided greater operational clarity as to the nature of attachment in adolescence, the scale reliabilities were only moderate. Furthermore, because the affective dimension was unifactorial, exploration of individual differences in the nature of attachment was limited. By examining qualitative dimensions of attachment, their roles in the development of individual differences may be studied.

In this report, we examine the general affective/cognitive dimensions of attachment to parental and peer figures. We hypothesized that the "internal working model" of attachment figures may be tapped by assessing (1) the positive affective/cognitive experience of trust in the accessibility and responsiveness of attachment figures, and (2) the negative affective/cognitive experiences of anger and/or hopelessness resulting from unresponsive or inconsistently responsive attachment figures. Because a major question addressed in this research follows from the current controversy regarding the differential impact of parent and peer influences, we chose not to inquire about both mother and father, or about different types of peer relationships. Instead, as a variety of figures (parents or peers) might differentially affect the adolescent, we suggested to our adolescent subjects that they respond regarding the parents or peers who most influenced them. Our intention is to present the early results of our scale development efforts in order to provide impetus for the generation of ideas concerning the nature and measurement of adolescent attachment.

The present studies aimed (1) to develop a more comprehensive and reliable measure of attachment that is multifactorial, and (2) to attempt to

use this measure to examine the role of security of attachment in late adolescence.

STUDY I

Purpose

The purpose of Study I was to develop a reliable multifactorial measure of adolescent attachment. It was hypothesized that parent attachment items would load on separate factors from peer items, since they are presumed to assess distinct attachment systems.

Method

Sample

The Inventory of Parent and Peer Attachment (IPPA) was developed with two samples of undergraduate students at the University of Washington who were enrolled in departmental courses and participated in research for additional credit. Sample I ($n = 93$) was obtained in Spring 1981, and Sample II ($n = 86$) in Fall 1982. Sixty-three percent of the subjects were female. The age range was 16–20 years, with a mean age of 18.9 years. Approximately 75% of subjects were Caucasian. The sample was predominantly middle class. Family background characteristics of the sample were not available.

Procedure

Subjects completed a 60-item questionnaire by indicating how often each statement was true for them on a 5-point Likert scale. Response categories were *Almost Never or Never*, *Seldom*, *Sometimes*, *Often*, and *Almost Always or Always*. The two extreme responses were scored as 1 or 5, depending on whether an item was positively or negatively worded. Scale construction began with expanding the Inventory of Adolescent Attachments (Greenberg *et al.*, 1984) in order to include more comprehensive coverage of Bowlby's theoretical formulations (1969/1982, 1973b, 1980) concerning attachment behavior and the nature of feelings toward expectations about attachment figures. Items were designed to assess the adolescent's trust (felt security) that attachment figures understand and respect her/his needs and desires, and perceptions that they are sensitive and responsive to her/his emotional states and helpful with concerns. Items assessing anger toward or emotional detachment

from attachment figures are also included, since frequent and intense anger or detachment are seen to be responses to actual or threatened disruption of an insecure attachment bond. Items tapping parent attachment were grouped separately from peer-attachment items. Generally, a parent item had a corresponding peer item, worded similarly. Exceptions were items with obvious family context or general alienation items. If subjects felt they had a very different relationship with mother and father, they were instructed to respond to the parent items for the parent who had "most influenced" them (see the discussion section). Subjects were asked to think about their closest friendships when answering the peer items.

Results

In order to examine their underlying structure, the attachment items were factor analyzed using principal factoring with iteration and Varimax rotation. Loading patterns suggested the appropriateness of separating items assessing parent attachment from items assessing peer attachment in future analyses. Twenty-nine of 31 parent items had loadings greater than .35 on Factor I, while 21 of 29 peer items had loadings greater than .35 on Factor II. No peer item loaded greater than .28 on Factor I, and no parent item loaded greater than .19 on Factor II. Because the two items assessing general feelings of alienation loaded higher on Factor I and had loadings of less than .30 on Factor II, such items were grouped with parent items in the inventory.

The 31 parent and 29 peer items were then separately analyzed using Varimax rotation. For the parent measure, three factors emerged with eigenvalues greater than 1. Together they accounted for 92% of the total variance and were found to have readily interpretable patterns of factor loadings. The first factor, with loadings ranging from $-.20$ to $+.71$, had highest loading for items suggesting themes of parental understanding and respect, and mutual trust. The second factor, with loadings ranging from $-.21$ to $+.76$, had highest saturations for items related to the extent and quality of verbal communication with parents. Items loading highly on the third factor (loadings ranged from $-.43$ to $+.64$) suggested feelings of alienation and isolation. For the peer measure, three factors emerged with eigenvalues greater than 1. These factors accounted for 84% of the total variance and were readily interpretable. As in the first parent factor, item content of the first factor suggested mutual trust and respect; loadings were $-.44$ to $+.79$. The second peer factor (loadings ranged from $-.27$ to $+.76$) had highest loadings for items assessing perceived quality of communication. Factor III suggested alienation from friends but with the recognition of the need to be closer to them; loadings were $-.42$ to $+.59$.

Preliminary scales were created from the six factors by selecting and summing items with loadings of .30 or greater. Items satisfying this criterion on more than one factor were assigned on the basis of the highest loading. In the few cases where loadings differed by less than .10, assignment was made on the basis of conceptual content. In a final item-selection step, items were removed if their inclusion in a scale reduced its internal consistency (Cronbach's alpha). The three final parent scales are Trust (10 items; alpha = .91), Communication (10 items; alpha = .91), and Alienation (8 items; alpha = .86). The final peer scales are Trust (10 items; alpha = .91), Communication (8 items; alpha = .87), and Alienation (7 items; alpha = .72). Appendix A lists the items comprising the IPPA. Examination of the range of scores revealed that at least 68% and on the average 80% of the possible score ranges of these scales were utilized by the sample, indicating acceptable differentiation of subjects. The final sets of parent and peer items were factor analyzed using the Varimax rotation, with the number of factors to be extracted limited to three. As shown in Appendix B, factor loadings for the parent items ranged from .45 to .74; for the peer items the range was .45 to .75.

Table I presents the Pearson correlations between the six parent and peer scales. All intercorrelations were significant at the 1% significance level or less. Parent scales were more highly related to each other than they were to the peer scales. Trust and Communication scores were highly correlated within both parent ($r = .76$) and peer ($r = .76$) measures. Corresponding parent and peer scales were not as strongly related; the coefficient obtained for the Trust scales was .33, for the Communication scales, .29, and for the Alienation scales, .47.

The patterns of factor loadings suggest a partial confirmation of the notion of positive and negative affective/cognitive dimensions of attachment. However, the intercorrelations among the factor-based scales suggest, with the possible exception of peer Alienation vs peer Trust and peer Communica-

Table I. Intercorrelations of IPPA Scales^a

	Parent		Peer		
	Communication	Alienation	Trust	Communication	Alienation
Parent					
Trust	.76	-.76	.33	.26	-.24
Communication		-.70	.25	.29	-.22 ^b
Alienation			-.28	-.21 ^b	.47
Peer					
Trust				.76	-.46
Communication					-.40

^aps are one-tailed and < .001 unless indicated.
^bp < .01.

tion, that these factors are not independent as assessed with the current item content. For this reason, in Study II the attachment measure is first treated as a unifactorial measure assessing aspects of security-insecurity along a single dimension. This is followed by an exploratory approach to classifying individual differences in attachment utilizing the factor-based subscales.

STUDY II

Purpose

Having found evidence for favorable internal reliability of the IPPA, Study II was designed with the objective of assessing the validity of the instrument by examining its relation to measures of psychological well-being, family environment, and support-seeking from significant others. In accordance with the organizational view of attachment (Bowlby, 1973b; Sroufe and Waters, 1977), the following hypotheses were formulated: First, quality of attachment to parents and peers would be related to measures of well-being. In order to test this, a hierarchical regression model was employed, using a linear attachment score. The second hypothesis was that adolescents with qualitatively different attachments to parents and peers would differ in proximity seeking and in well-being. Third, the associations between negative life change and psychological symptomatology would be weaker for the group of adolescents who are more securely attached. In order to test the latter two hypotheses, two attachment groups were defined according to a set of decision rules regarding the interrelationships among subscores obtained on the attachment measure. In addition, Study II examined the test-retest reliability of the IPPA.

Method

Sample

The subjects were a subsample of Study I (Sample II), consisting of 32 male and 54 female undergraduate students. (Sample I was not available for the longer testing period required.) Subjects ranged in age from 17 to 20 years, with a mean age of 18.6 years. Over 80% were Caucasian; approximately 15% were Asian or Asian-American. Seventy-one subjects reported having lived with both parents most of their lives; of the remaining 15, all but one had lived with their mothers. All subjects had one or more siblings. Nearly three-quarters of the sample were living away from home at the time of data collection.

Procedure

Subjects completed all questionnaires in one session. Data were collected using the following measures:

Well-Being. The Tennessee Self-Concept Scale (TSCS; Fitts, 1965). This scale is a collection of 100 self-descriptive statements with a 5-point Likert rating. A total positive score, calculated from 90 items, assesses overall self-esteem. Scores computed from subsets of these 90 items provide self-concept subscales for more limited domains; in this study the Family Self and Social subscales were utilized. The Total Conflict score provided a measure of the extent of confusion or contradiction in self-perception. The Self-Criticism scale, consisting of 10 items taken from the Minnesota Multiphasic Personality Inventory L-Scale, was used to obtain a measure of the capacity for critical self-evaluation (high scores) or alternatively, of the tendency for defensive, more socially desirable responding (low scores). High test-retest reliabilities (typically in the mid-80s) have been reported for the major TSCS scales (Bentler, 1972).

For purposes of the cross-validation of outcome measures, a single global question was also used to assess life satisfaction. Each subject was asked to indicate whether she/he was *very dissatisfied* (scored as 1), *a little dissatisfied*, *neither satisfied nor dissatisfied*, *well satisfied*, or *completely satisfied* (scored as 5) with her/his life in general. In a study of late adolescents, two-week test-retest reliability of this measure was .81 (Greenberg *et al.*, 1984).

Affective Status. Eleven scales assessing dimensions of emotional status were selected from Bachman's (1970) Affective States Index, which was constructed for use with adolescents. As part of the present study, results were factor analyzed and four scales were derived from the original 11: Depression/Anxiety (21 items; alpha = .95), Irritability/Anger (11 items; alpha = .89), Resentment/Alienation (9 items; alpha = .88), and Guilt (2 items; alpha = .83). Scale intercorrelations ranged from .47 (for Guilt and Resentment/Alienation) to .80 (for Depression/Anxiety and Resentment/Alienation).

Family Characteristics. The Family Environment Scale (FES) profiles the social climate of an individual's family (Moos, 1974). The items are grouped into 10 subscales. Six subscales, consisting of nine items each, were examined: Cohesion, Expressiveness, Conflict, Organization, Control, and Independence. The first three of these characteristics are conceptualized as relationship dimensions assessing feelings of belonging and perceptions of the extent of mutual support, openness, and conflict in family members' interactions. Organization and Control scores are intended to reflect dimen-

sions related to maintenance of the family as a system, i.e., the degree of structure and control imposed by members vis-à-vis each other. The Independence subscale, one dimension of personal development, measures encouragement of autonomy and of the development of individual interests.

Stressful Life Events. The Life Events Checklist (Johnson and McCutcheon, 1980) was tailored from the Life Events Survey (Sarason, Johnson, and Siegel, 1978) for use with adolescent samples. Respondents are asked to indicate which of 47 listed events occurred in the past year and to rate each event's type of impact (positive or negative) and degree of impact (*no* [0], *some*, *moderate*, or *great* [3]). Life-Change scores are calculated by summing impact ratings separately for positive and negative events. This provision of positive and negative scores is a methodological acknowledgment of indications that only subjectively negative events are related to psychological and physical health status in adolescents (Sarason *et al.*, 1978). Brand and Johnson (1982) report two-week test-retest reliabilities of .71 for positive events and .66 for negative events.

Proximity Seeking. Two types of measures provided information about self-reported behavior in situations where a desire to seek out other (particularly significant others) would be expected. First, the Family and Peer Utilization factors from the Inventory of Adolescent Attachment (Greenberg *et al.*, 1984) was used to assess how frequently (*never*, *sometimes*, *often*) subjects sought out family members and friends in five situations. The situations selected were when feeling lonely, depressed, angry, anxious, or happy. Scale scores consisted of the sum of the frequencies with which the individual went to any one of or group of the attachment figures in the five situations. Four Utilization scales were examined: Mother, Father, Family (parents and siblings), and Peer (male and female friends plus steady boy- or girlfriend). A second self-report measure assessed the frequency of proximity seeking in both (1) everyday, annoying situations and (2) more complicated, upsetting situations. A 5-point Likert scale was used for each type of situation. *I never share my concerns with others* was scored as 1 while *I always share my concerns with others* was scored as 5. Subjects were also asked to indicate their desired (rather than actual) frequency of sharing concerns in both types of situations.

Questions were also asked concerning frequencies of subject- and parent-initiated telephone contact and visiting with parents. Subjects were also asked the following: Have you lived with both parents most of your life? Do you consider your relationship with your father very different from that with your mother? If so, do you have a closer relationship with your mother or your father? Subjects not living at home were asked how frequently they visited their parents.

Results

Sex Differences

Scores on all measures were examined for sex differences. Females scored significantly higher on Mother Utilization ($F(11,84) = 13.0, p < .001$), and Parent Utilization ($F(11,84) = 4.25, p < .05$). In addition, females reported more negative life change ($F(11,85) = 7.7, p < .01$) and were less consistent than males in their concepts of themselves (TSCS Total Conflict scores: $F(1,82) = 6.9, p < .01$). As 94% of the sample were between 18 and 19 years of age, age differences were not examined. Caucasian vs non-Caucasian, and living at home vs living away, comparisons of utilization scores proved nonsignificant.

Convergent Validity of IPPA

A summary score of quality of attachment was separately defined for parents and peers as the degree of trust and communication relative to alienation. This summary score was necessary for regression analysis, due to the high intercorrelations among subscales. Parent and Peer Attachment scores for each individual were computed by summing Trust and Communication raw scores, and subtracting from this sum the Alienation raw score. Parent Attachment scores ranged from 16 to 92 ($\bar{X} = 60.7, SD = 16.2$). The score range for Peer Attachment was 19 to 82 ($\bar{X} = 56.6, SD = 10.4$). For a separate sample of twenty-seven 18–21-year olds (mean age = 20.1), three-week test-retest reliabilities were .93 for the Parent Attachment measure and .86 for the Peer Attachment measure.

Females scored higher than males on Peer attachment ($F(11,84) = 21.45, p < .0001$). This finding, together with gender differences found on several other measures, would ordinarily suggest separate male/female analyses. Because of the small sample size, however, such separate analyses would most likely prove unreliable. No differences were found on Attachment scores between Caucasians and non-Caucasians, or between subjects living at home and subjects living away from home.

The qualities of parent and peer attachments were expected to be directly related to growth-promoting family characteristics, positive perceptions of oneself as family member and social being, and frequency of seeking out significant others in times of need. Therefore, data from the FES, TSCS, and Family and Peer Utilization factors were used to evaluate the convergent validity of the IPPA. As can be seen in Table II, Parent Attachment scores correlated significantly with five of the six indices of family climate.

Table II. Correlations Between IPPA Scores and Scores on the TSCS, FES, and Utilization Factors

	Parent Attachment	Peer Attachment
TSCS		
Family self-concept	.78 ^c	.28 ^b
Social self-concept	.46 ^c	.57 ^c
FES		
Cohesion	.56 ^c	.15
Expressiveness	.52 ^c	.25 ^b
Conflict	-.36 ^c	.04
Independence	.15	-.01
Organization	.38 ^c	.02
Control	-.20 ^a	-.12
Mother Utilization	.62 ^c	.33 ^b
Father Utilization	.60 ^c	.27 ^b
Family Utilization	.54 ^c	.28 ^b
Peer Utilization	.18 ($n = 55$)	.32 ^b ($n = 55$)

^a $p < .05$ (one-tailed).

^b $p < .01$.

^c $p < .001$.

Highest correlation coefficients were obtained for the FES Cohesion and Expressiveness scales (.56 and .52, respectively; $p < .001$). Family self-concept, as measured by the TSCS, appeared strongly associated with parent attachment ($r = .78$). Consistent with theoretical expectations, parent attachment moderately correlated with seeking out parents in times of need.

As expected, Peer Attachment scores correlated most highly with TSCS Social Self-Concept ($r = .57, p < .001$). Peer attachment on the whole was not related to the measures of family environment. The correlation between peer attachment and peer utilization was significant but weaker than that between parent attachment and parent utilization. Furthermore, peer attachment was equally related to Parent and Peer Utilization factors. Neither Parent nor Peer Attachment scores were significantly correlated with scores on the TSCS Self-Criticism scale (an indicator of social desirability).

Attachment, Well-Being, and Affective Status

In order to test the relationship of quality of attachments to measures of psychological status, hierarchical multiple regression analyses were performed. The criterion variables examined were two well-being measures (Self-Esteem and Life-Satisfaction) and four indices of affective status (Depression/Anxiety, Resentment/Alienation, Irritability/Anger, and Guilt). Sex was entered in the first step, followed by simultaneous entry of positive and negative life-change. Inclusion of the attachment variables followed. The inter-

Table III. Intercorrelations of Predictor Variables

	Negative life change	Parent Attachment	Peer Attachment
Positive life change	.18	.24 ^a	.11
Negative life change		-.27 ^a	-.03
Parent attachment			.36 ^c

^a $p < .05$.
^b $p < .01$.
^c $p < .001$.

correlations of the predictor variables, excluding sex, are presented in Table III. In consideration of the predictors' multicollinearity, Parent Attachment was entered after Peer Attachment, thus biasing against its presumed greater explanatory power.

Table IV presents the results of the multiple regression analyses for the well-being measures. The variables accounted for 59% of the total variance in Self-Esteem scores and 53% of the variance in Life-Satisfaction scores. Positive and negative life change and Peer and Parent Attachment all significantly predicted both self-esteem and life satisfaction. Life-Change scores accounted for 21% of the variance in Self-Esteem scores and 31% of the variance in Life-Satisfaction scores. Peer Attachment appeared more highly related to self-esteem than to life satisfaction, accounting for 20% and 7% of the variance, respectively, in these measures. Parent Attachment was highly significantly related to both well-being measures, even though estimation of its contribution was biased against by its late entry into the multiple regression equation. Eighteen and 15% of the variances in Self-Esteem and Life-Satisfaction, respectively, were accounted for by Parent Attachment scores.

Table IV. Regression Statistics for Predicting Well-Being from Peer and Parent Attachment Scores

Criterion	Predictor	R ² ^a	F ^b	r
Self-esteem	Positive life change	.06	8.4 ^c	.22
	Negative life change	.21	15.7 ^d	-.33
	Peer attachment	.40	26.6 ^d	.45
	Parent attachment	.58	33.3 ^d	.67
Life satisfaction	Positive life change	.15	22.6 ^d	.38
	Negative life change	.31	19.7 ^d	-.33
	Peer attachment	.38	9.0 ^c	.33
	Parent attachment	.53	25.6 ^d	.64

^aReflects cumulative R².

^bF₁₀-enter value.

^c $p < .01$.

^d $p < .001$.

Table V. Regression Statistics for Equations Predicting Affective Status from Peer and Parent Attachment Scores

Criterion	Predictor	R ² ^a	F ^b	r
Depression/ Anxiety	Positive life change	.05	7.5 ^c	-.18
	Negative life change	.25	22.2 ^d	.43
	Peer attachment	.35	12.6 ^c	-.33
Resentment/ Alienation	Parent attachment	.43	11.1 ^c	-.53
	Positive Life Change	.03	5.4 ^d	-.16
	Negative Life Change	.24	23.5 ^d	.41
Irritability/Anger	Peer Attachment	.35	12.9 ^c	-.38
	Parent Attachment	.44	13.4 ^c	-.56
	Positive Life change	.03	4.8 ^d	-.16
Guilt	Negative Life Change	.28	20.1 ^d	.37
	Peer Attachment	.28	7.0 ^d	-.34
	(Parent Attachment) ^e	(.29)	(1.1)	(-.35)
	Negative Life Change	.14	11.4 ^c	.35
	Peer Attachment	.23	9.3 ^c	-.27
	(Parent Attachment)	(.23)	(0.1)	(-.24)

^aReflects cumulative R².

^bF₁₀-enter value.

^cVariables in parentheses contributed nonsignificantly to the regression equation.

^d $p < .05$.

^e $p < .01$.

^f $p < .001$.

The contribution of sex was nonsignificant for both well-being criterion measures.

The results of the multiple regression analyses for the affective-status measures are presented in Table V. Together, the life-change variables accounted for between 14 and 25% of the total variance in affective status scores. Similar to the results for the well-being criterion measures, the predictors accounted for 43 and 44% of the total variances in Depression/Anxiety and Resentment/Alienation, respectively. Positive and negative life change and Peer and Parent Attachment all significantly predicted scores on these two affective-status measures. On the average, Peer Attachment accounted for about 9% of the total variance in scores on affective-status measures. Parent Attachment accounted for an additional 8% of the variance in Depression/Anxiety and 9% in Resentment/Alienation scores. However, Parent Attachment accounted for an additional 8% of the variance in Irritability/Anger, and Guilt scores. Similar to the well-being measures, affective status was not predicted by sex.

Summarizing the multiple regression analyses, when entered last into the regression equation (following sex and negative life change), Parent and Peer Attachment together accounted for 37% of the variance in Self-Esteem and 22% of the variance in Life-Satisfaction scores. Parent and Peer Attach-

ment together also contributed to between 7 (Anger/Irritability) and 20% of the explained variance in affective-status measures. The Attachment variables accounted best and approximately equally for the variances in Depression/Anxiety and Resentment/Alienation scores. Parent Attachment did not, however, predict Irritability/Anger or Guilt, even when brought into the regression equations prior to Peer Attachment.

Individual Differences in Attachment

In order to begin examination of individual differences in attachment across types of relationships, an exploratory categorization of subjects was made. Parent attachment and peer attachment were considered separately. The score distribution of each IPPA subscale (Trust, Communication, Alienation) was divided into lowest, middle and highest third. Because of the significant sex differences in two of three Peer Attachment subscales, the separate distribution of the Peer subscale scores for male and female subjects were divided as just described. Each subject was then given a rating of "low," "medium" or "high" for each of the three subscales according to where her/his score fell. A set of logical rules defined attachment group assignment:

1. Individuals were assigned to the *High Security* (HS) group if their Alienation scores were not high, and if their Trust or Communication scores were at least medium level. Because of the theoretical importance given by Bowlby to the element of trust in the attachment relationship, in cases where Trust scores were only medium level but Alienation scores were also medium level, HS group assignment was not made.
2. Individuals were assigned to the *Low Security* (LS) group if their Trust and Communication scores were both low, and if their Alienation scores were medium or high level. In cases where the Trust or Communication score was medium level but the other was low, LS group placement was made if the Alienation score was high.

Using this scheme, 66% of the sample was assignable to a parent attachment group and 49% fell into one of the peer attachment comparison groups. While the individuals scoring in the midrange were excluded from this analysis, it was our intention to define, on theoretical grounds, two attachment comparison groups that would be maximally distinct (see the discussion section). The compositions by sex of the Parent and Peer Attachment groups are shown in Table VI. Overall chi-square analyses were not significant. Defining peer-group membership separately for the sexes avoided substantial overrepresentation of females in the HS group and males in the LS group (confounding attachment type with sex in analyses). Had the entire sample's score distributions been utilized for the peer group categorization

Table VI. Frequencies and Proportions of Males and Females in Attachment Groups^a

	High security	Low security	Not categorized
	Parent ^b		
M	.34 (11)	.41 (13)	.25 (8)
F	.37 (20)	.24 (13)	.39 (21)
Total	.36 (31)	.30 (26)	.34 (29)
	Peer ^c		
M	.34 (11)	.32 (10)	.34 (11)
F	.20 (11)	.19 (10)	.61 (33)
Total	.26 (22)	.23 (20)	.51 (44)

^aFrequencies are in parentheses.

^b $\chi^2(2) = 3.01$, n.s.

^c $\chi^2(2) = 5.75$, n.s.

procedure, females would have comprised fully 87% of the HS group and only 20% of the LS group.

Of those subjects who had lived with both parents most of their lives, 51% (36) reported having a very different relationship with Father than with Mother. All but six of these individuals reported feeling closer to Mother than Father. Chi-square tests revealed no significant differences between subjects in the HS and LS parent-attachment groups on the following variables: ethnicity (Caucasian vs non-Caucasian), history of residence with one or both parents, and feeling closer to mother than to father. Of the 15 subjects who had lived separately from one parent for most of their lives, 10 were assignable to either the HS or LS parent attachment groups. These 10 subjects had no greater probability of placement in the LS group to parents than did the remainder of the sample.

In order to explore the validity of assigning adolescents to differentially defined attachment groups, the parent and peer attachment groups were separately compared on variables theoretically expected to distinguish them. Separate set of *t* tests for parent and peer comparison groups were conducted to test the hypotheses that the HS group was higher than the LS group in self-esteem, life-satisfaction, and proximity seeking, while lower than the LS group in negative affective states, and degree of confusion or contradiction in self-concepts.

As Table VII shows, the HS parent-attachment group was significantly different from the LS group on all measures except Guilt and Peer Utilization. The mean self-esteem score for the HS group (3.67) fell at the 70th percentile according to normative data provided by Fitts (1965) for individuals aged 12-68 years; the mean self-esteem score for the LS group was 3.20 (20th percentile). When the sharing-of-concerns data were examined, although the parent group did not differ in frequency of sharing everyday concerns, reported frequency of sharing serious concerns was significantly lower for the LS group ($t = 3.67$, $df = 55$, $p < .001$). Consistent with this result is the find-

Table VII. Summary of Tests of Differences Between Parent and Peer Attachment Groups (*t* Values)

	Parent		Peer	
	High security vs low security ^a	High security vs low security ^b	High security vs low security ^a	High security vs low security ^b
Self-Esteem (TSCS total positive)	5.11*	3.14*	3.01*	3.14*
Life Satisfaction	4.61*	4.16*	4.16*	4.16*
Depression/Anxiety	-4.64*	-4.16*	-4.16*	-4.16*
Resentment/Allegation	-4.34*	-3.21*	-3.21*	-3.21*
Irritability/Anger	-3.91*	-1.82*	-1.82*	-1.82*
Guilt	n.s.	-2.62*	n.s.	-2.62*
Mother Utilization	5.88*	n.s.	n.s.	n.s.
Father Utilization	6.02*	n.s.	n.s.	n.s.
Peer Utilization	n.s.	1.78*	n.s.	1.78*
Self-Concept Confusion (TSCS total conflict)	-2.42*	-1.76*	-1.76*	-1.76*

^a*df* = 55 except for Peer Utilization (*df* = 31).

^b*df* = 40 except for Peer Utilization (*df* = 25).

**p* < .05 (one-tailed).

^c*p* < .01.

^d*p* < .001.

ing that members of the LS group indicated they actually desired significantly less sharing of serious concerns than was indicated by members of the HS group ($t = 2.55$, $df = 55$, $p < .01$).

Among the peer attachment classification groups, the HS group was significantly higher in self-esteem and life-satisfaction and lower on the four affective status measures than the LS group. The mean self-esteem scores of the HS and LS Peer groups were 370 and 334, respectively. Peer Utilization but not Mother or Father Utilization differentiated the peer attachment groups from each other. The HS Peer group did report more frequent sharing of both everyday and serious concerns than the LS group ($t = 1.64$, $df = 40$, $p < .06$; $t = 3.08$, $df = 40$, $p < .005$). The LS peer group, similarly to the LS parent group, reported that they desired less sharing of serious concerns ($t = 2.37$, $df = 40$, $p < .025$).

A comparison made between parent attachment group placements and peer-group placement revealed good correspondence. Of the 29 subjects whose IPPA score patterns were classifiable in terms of both peer and parent attachment category, 21 (72%) were either HS or LS in their attachment to both peers and parents. Forty-five percent of subjects assigned to the HS parent-attachment group were also assigned to the HS peer-attachment group (comprising two-thirds of the HS peer group), while only 16% were assigned to the LS peer-attachment group. Most subjects (62%) in the LS parent group were not categorized in terms of their attachment to peers. Seven (27%) were also classified as LS in their attachment to peers, and only three subjects were classified as HS to peers.

Table VIII. Correlation Coefficients for Negative Life-Change and Psychological Symptomatology (Controlling for Parent and Peer Attachment Scores)

	High security group (<i>n</i> = 31)		Low security group (<i>n</i> = 26)	
	Parent (<i>n</i> = 31)	Peer (<i>n</i> = 23)	Parent (<i>n</i> = 26)	Peer (<i>n</i> = 20)
Depression/Anxiety	-.11	.09	.59*	.29
Resentment/Allegation	-.08	.09	.57*	.30
Irritability/Anger	-.27	.12	.61*	-.01
Guilt	-.02	-.34	.60*	.08

**p* < .01 (one-tailed).

The third major hypothesis of this study concerned a greater association between negative life change and psychological symptomatology for the LS attachment groups than for the HS groups. Correlations were obtained between degree of negative life change and measures of affective status for the HS the LS attachment groups. Because Parent and Peer Attachment scores were known to be moderately related to the variables examined in this analysis, the common variance was removed. As shown in Table VIII, a pattern of moderate partial correlation coefficients emerged for the LS parent group, in contrast with generally low coefficients for the HS parent group. The analysis of the two peer attachment groupings suggested no difference between the HS and LS groups in the relationship between negative life change and symptomatology. The possibility was investigated that the HS and LS groups differed in the degree of negative life change experienced. The LS parent attachment group reported significantly more negative life change than the HS group ($t = 2.04$, $df = 55$, $p < .05$, two-tailed), but no difference was found for the two peer groups.

Discussion

As hypothesized, quality of parent and peer attachments in late adolescence was highly related to well-being, particularly to self-esteem and life satisfaction. This finding is congruent with the results of a number of studies linking psychological adjustment to the quality of intimate relationships with parents and peers. Importantly, quality of attachment not only was strongly related to well-being, but also meaningfully contributed to predicting the adolescents' depression/anxiety and resentment/allegation scores. These findings are congruent with Bowlby's hypothesis (1973b) regarding the relationships between attachment, and anxiety and depression. According to a hierarchical regression model, quality of attachment to parents was signifi-

cantly related to the criterion measures after quality of peer attachment and negative life change had been controlled.

Thus, it appears, even in a college-aged population, the present perception of family relationships continues to be linked with well-being. This finding is congruent with that of Morimer and Lorence (1980), who reported significant influences of family relationships on self-esteem in a college population. While the IPPA taps aspects of current relationships with parents, studies have indicated that parent-child relationships are quite stable through childhood and adolescence (Grandall, 1972; Hunt and Eichorn, 1972), and that there is continuity in child-rearing orientations of both parents (Roberts, Block, and Block, 1984). Such data are congruent with Bowlby's (1969/1982) thesis that, barring major discontinuities in experience, quality of attachment is enduring.

In this study, a partial classification scheme was devised in order to compare late adolescents according to the differential nature of their attachments. Adolescents with attachments marked by high security to their parents appear very well adjusted. They possess higher than average self-esteem, and enjoy frequent and satisfactory communication with their families. Almost half of these subjects also reported a high quality to their relationships with peers. In contrast, subjects comprising the LS parent attachment group described feelings of resentment and alienation, and a more emotionally and verbally detached quality to their relationships with their parents.

While negative life change was independently related to well-being in this study, the results indicate considerable discrepancy between those adolescents securely attached to parents and those with low security in the strength of association between negative life change and symptomatology. This pattern was not evident for the two categories of peer attachment. Such data, although necessarily tentative due to the low *ns*, suggest that those adolescents characterized by low security to parents may be more vulnerable to the deleterious effects of such damage on well-being. These findings are consonant with Greenberg *et al.*'s (1984) data suggesting a moderating effect of positively perceived attachment to parents but not to peers, for their sample of 12- to 19-year-olds. Together, these results, contrary to Gad and Johnson's negative findings (1980), contribute toward substantiation of a buffering role of parental relationships in adolescence. Such a role is predicted by Bowlby's theoretical formulations (1969/1982), providing evidence for one mechanism by which attachment may maintain its hypothesized enduring relationship to quality of adaptation. However, as Thoits (1982) cautions, only longitudinal data can address the causal question implicit in the buffering hypothesis.

The method of comparison of individual differences in adolescent attachment should be considered exploratory. First, the dimensionality of adolescent attachment remains open to question. Possibly, a more heterogene-

ous item content would result in better confirmation of our hypothesis of affective/cognitive and behavioral dimensions. The superiority of this categorization method over the use of linear scale scores on a single dimension of security remains to be proven. The attachment groups formed in this study were based on relative criteria, determined by the characteristics of one sample of late adolescents (college students). The variability of self-esteem scores and the ranges of the IPPA scores do suggest that differentiation of subjects was adequate for limited generalizability of findings within late adolescence. With our conceptual analysis, however, 34% of the sample for parent attachment and 51% for peer attachment were not categorized. While we have characterized a somewhat extreme subsample as LS, more than one pattern of insecure attachment may be discriminable. It is not clear what the development manifestations of "avoidant" or "ambivalent" attachment would be in adolescence, or if other conceptualizations of insecure attachment would be more appropriate. Furthermore, these categories are only comparative in nature, denoting more secure vs more insecure.

The IPPA has shown substantial reliability and good potential validity as a measure of perceived quality of close relationships in late adolescence. Further development with younger adolescents is planned. Construct validity remains to be demonstrated through the clinical assessment of adolescents' psychological functioning (rather than self-report methods). One question that might be raised regards the validity of findings resulting solely from self-report measures. While multimethod investigations will provide necessary corroboration of these findings, the pattern of results provides evidence to support their validity. First, there is a relatively low correlation between self-reported quality of relationships to parents and that to peers. Thus, there does not seem to be a plaintive set with individuals reporting homogeneously across two different types of attachment figures. Second, as hypothesized in this study, differential associations were found between outcome measures and security of attachment to peers vs parents. Behavioral observation of adolescents' interactions with their parents and peers are also needed to further validate the IPPA. Hauser and his associates (Hauser, Powers, Noam, Jacobson, Weiss, and Follansbee, 1984) have recently developed an observational method for identifying interactions within families including adolescents (Constraining and Enabling Coding System), which may be useful in this regard.

The comparisons of attachment groupings based on patterns of subscale scores represents an advance toward fuller understanding of individual differences, beyond that provided by linear scale scores. Following the development of an improved method of classification, several avenues of investigation seem particularly warranted. First, in light of Main and Weston's (1981) and Lamb's (1977) infant studies providing evidence for differential qualities of attachment to mothers and fathers, we were currently expanding

the IPPA to separately assess mother and father attachment in adolescence. By doing so, questions may be examined regarding the effects of discordant attachments to these figures on well-being and the disposition to form secure or insecure peer relationships, as well as their differential relationship to the working model of the self (Bowlby, 1980). Further exploration in this area may help explain the present findings that adolescent subjects with LS parent attachment showed more confusion and contradiction in their "self-system" (Epstein, 1980).

Second, the importance of parent vs peer attachment throughout adolescence needs continued investigation. In contrast to Greenberg *et al.*'s (1984) findings of little association between parent and peer affectional attachment, the present results indicate substantial correspondence. There were some individuals, however, who were classified as insecurely attached to parents but securely attached to peers, or vice versa. These groups were too small for meaningful analysis, but deserve future attention—particularly the group comprised of individuals who may be able to "compensate" for poor parental relationships by turning to their peers.

Third, possible sex differences in peer attachment should be explored. Females scored significantly higher on the peer Communication subscale. Hunter and Younis (1982) report a similar sex difference in adolescent communication. Because females in this study also scored higher on the peer Trust subscale, unless separate criteria for attachment group classification were used (as was done), very few males would have been characterized as securely attached, and few females as insecurely attached. In addition, Bowlby (1973b) has noted a greater occurrence of anxious, clinging attachment in girls while among boys, detachment is more common. Thus, while sex differences in a conceptualization of attachment common to both males and females is an important question (raising the issue of culturally normative socialization mediating attachment formation), separate norms may prove to have great predictive power.

The last suggested avenue for future research is methodological in nature. In order to lend support to Bowlby's reasonable theoretical notion that security of attachment is causally related to well-being, longitudinal data are called for. Such data would also help answer the troublesome question of whether the relationship between attachment and well-being may be explained by the fact that individuals with poorer adjustment perceive their relationships as less satisfactory. Precedential longitudinal research on attachment in early life and on the family-related antecedents of self-esteem in childhood (Coopersmith, 1967; Rosenberg, 1965), however, suggests the appropriateness of a developmental hypothesis of a causal association between parental influence and well-being in adolescence.

REFERENCES

- Ainsworth, M., and Wittig, B. (1969). Attachment and exploratory behavior of one-year-olds in a strange situation. In Foss, B. M. (Ed.), *Determinants of Infant Behavior*, Vol. 4. Methuen, London.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., and Wall, S. (1978). *Patterns of Attachment*. Erlbaum Associates, Hillsdale, NJ.
- Arend, R., Gove, F., and Stroufe, L. A. (1979). Continuity of individual adaptation from infancy to kindergarten: A predictive study of ego-resiliency and curiosity in preschoolers. *Child Develop.* 50: 950-959.
- Bachman, J. G. (1970). *Youth in transition: The Impact of Family Background and Intelligence of Tenth-Grade Boys*, Vol. 2. Blumfield, Ann Arbor, MI.
- Bachman, J. G., Kahn, R. L., Mednick, M. I., Davidson, T. W., and Johnson, L. D. (1967). *Youth in Transition: Blueprint for a Longitudinal Study of Adolescent Boys*, Vol. 1. Blumfield, Ann Arbor, MI.
- Bentler, P. M. (1972). Review of Tennessee Self-Concept Scale. In Buros, O. (ed.), *The Seventh Mental Measurements Yearbook*. Gryphon Press, Highland Park, NJ.
- Bloom, M. V. (1980). *Adolescent-Parental Separation*. Gardner Press, New York.
- Bloss, P. (1975). The second individuation process of adolescence. In Esman, A. H. (ed.), *The Psychology of Adolescence*. International Universities Press, New York.
- Bowlby, J. (1969/1982). *Attachment and Loss, Volume I, Attachment*. Basic Books, New York.
- Bowlby, J. (1973a). The self-reliant personality: Some conditions that promote it. In Gosling, R. (ed.), *Support, Innovation and Autonomy*. Tavistock, London.
- Bowlby, J. (1973b). *Attachment and Loss, Volume 2, Separation*. Basic Books, New York.
- Bowlby, J. (1977). The making and breaking of affectional bonds: Aetiology and psychopathology in the light of attachment theory. *Brit. J. Psychiat.* 130: 201-210.
- Bowlby, J. (1980). *Attachment and Loss, Volume 3, Loss*. Basic Books, New York.
- Brand, A. H., and Johnson, J. H. (1983). Notes on reliability of the Life Events Checklist. *Psychol. Rep.* 50: 1274.
- Bretherton, I. (1985). Attachment theory: Retrospect and prospect. In Bretherton, I., and Waters, E. (eds.), *Growing Points in Attachment Theory and Research, Monograph of the Society for Research in Child Development*, Vol. 50, (1-2, Serial No. 209), University of Chicago Press.
- Burke, R. J., and Weir, T. (1978). Benefits to adolescents of informal helping relationships with parents and peers. *Psychol. Rep.* 42: 1175-1184.
- Coopersmith, S. (1967). *The Antecedents of Self-Esteem*. Miller Freeman Publications, San Francisco.
- Crandall, V. C., (1972, November). The Feis Study: Some contributions to personality development and achievement in childhood and adulthood. *Sem. Psychiatr.* 4: 383-398.
- Easterbrooks, M., and Lamb, M. (1979). The relationship between quality of infant-mother attachment and infant competence in initial encounters with peers. *Child Develop.* 50: 380-387.
- Epstein, S. (1980). The self-concept: A review and the proposal of an integrated theory of personality. In Staub, E. (ed.), *Personality: Basic Aspects and Current Research*. Prentice-Hall, Englewood Cliffs, NJ.
- Fitts, W. H. (1965). *Tennessee Self-Concept Scale Manual*. Counselor Recordings and Tests, Nashville.
- Gad, M. T., and Johnson, J. H. (1980). Correlates of adolescent life stress as related to race, SES, and levels of perceived social support. *J. Clin. Child Psychol.* 9, 13-16.
- Gallagher, J. R. (1976). *Emotional Problems of Adolescents*. Oxford University Press, New York.
- Gecas, V. (1972). Parental behavior and contextual variations in adolescent self-esteem. *Sociometry*, 35(2): 332-345.
- Greenberg, M., Siegal, J., and Leitch, C. (1984). The nature and importance of attachment relationships to parents and peers during adolescence. *J. Youth Adoles.* 12(5): 373-386.

- Hauser, S. T., Powers, S. I., Noam, G. G., Jacobson, A. M., Weiss, B., and Follansbee, D. J. (1988). Familial contexts of adolescent ego development. *Child Develop.* 55, 195-213.
- Henderson, S. (1977). The social network, support and neuroses: The function of attachment in adult life. *Brit. J. Psychiatr.* 131: 185-191.
- Henderson, S. (1982). The significance of social relationships in the etiology of neurosis. In Parkes, C. M., and Stevenson-Hinde, J. (eds.), *The Place of Attachment in Human Behavior*. Basic Books, New York.
- Henderson, S., Byrne, D. G., and Duncan-Jones, P. (1981). *Neurosis and the Social Environment*. Academic Press, Sydney, Australia.
- Hinde, R. A. (1982). Attachment: Some conceptual and biological issues. In Parkes, C. M., and Stevenson-Hinde, J. (eds.), *The Place of Attachment in Human Behavior*. Basic Books, New York.
- Hunt, J. V., and Eichhorn, D. H. (1972, November). Maternal and child behaviors: A review of data from the Berkeley Growth Study. *Sem. Psychiatr.* 4: 367-381.
- Hunter, F. T., and Youniss, J. (1982). Changes in functions of three relations during adolescence. *Devel. Psychol.* 18(6): 806-811.
- Johnson, J. H., and McCutcheon, S. (1980). Assessing life stress in older children and adolescents: Preliminary findings with the *Life Events Checklist*. In Sarason, I. G., and Spielberger, C. D. (eds.), *Stress and Anxiety, Volume 7*. Hemisphere, Washington, D.C.
- Kahn, R. L., and Antonucci, T. C. (1980). Convoys over the life course: Attachments, roles, and social support. In Baltes, P. B., and Brim, O. G. (eds.), *Life-Span Development and Behavior, Volume 3*. Academic Press, New York.
- Lamb, M. E. (1977). Father-infant and mother-infant interaction in the first year of life. *Child Develop.* 48: 167-181.
- Leiner, R., and Ryll, C. (1978). Implementation of the life-span view of human development: The sample case of attachment. In Baltes, P. B. (ed.), *Life-Span Development and Behavior, Volume 2*. Academic Press, New York.
- Main, M., and Weston, D. R. (1981). Security of Attachment to mother and father: Related to conflict behavior and the readiness to form new relationships. *Child Develop.* 52: 932-940.
- Marcia, J. F. (1980). Identity in adolescence. In Adelson, J. (ed.), *Handbook of Adolescent Psychology*. Wiley, New York.
- Matas, L., Arend, R., and Sroufe, L. A. (1978). Continuity of adaptation in the second year: The relationship between quality of attachment and later competence. *Child Develop.* 49: 547-556.
- Moos, R. H. (1974). *Family Environment Scale*. Consulting Psychologists Press, Inc., Palo Alto, CA.
- Mortimer, J. T., and Lorence, J. (1980). Self-concept stability and change from late adolescence to early adulthood. In Simmons, R. G. (ed.), *Research in Community Mental Health*. JAI Press, Greenwich, CT.
- Mueller, D. P. (1980). Social network: A promising direction for research on the relationship of the social environment to psychiatric disorder. *Soc. Sci. Med.* 40: 147-161.
- O'Donnell, W. J. (1976). Adolescent self-esteem related to feelings toward parents and peers. *J. Youth Adoles.* 5(2): 179-185.
- Offer, D., and Offer, J. B. (1975). *From Teenage to Young Adulthood*. New York: Basic Books.
- Parkes, C. M., and Stevenson-Hinde, J. (Eds.) (1982). *The Place of Attachment in Human Behavior*. Basic Books, New York.
- Roberts, G. C., Block, J. M., and Block, J.K. (1984). Continuity and change in parents' child-rearing practices. *Child Develop.* 55: 586-597.
- Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton University Press, Princeton, NJ.
- Sarason, I. G., Johnson, J. H., and Siegel, J. (1978). Assessing the impact of life-changes: Development of the Life Experiences Survey. *J. Counsel. Clin. Psychol.* 46: 932-946.
- Snook, D., and Rohlbium, E. (1979). Self-disclosure among adolescents in relation to parental affection and control patterns. *Adolescence* 15(54): 333-340.
- Sroufe, L. A. (1978). Attachment and the roots of competence. *Human Nature* 1(10), 50-57.

- Sroufe, L. A. (1979). The coherence of individual development. *Amer. Psychol.* 34: 834-841.
- Sroufe, L. A., and Waters, E. (1977). Attachment as an organizational construct. *Child Develop.* 48: 1184-1199.
- Thoits, P. A. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. *J. Hill. Soc. Behav.* 23: 145-159.
- Thomas, D. L., Gecas, V., Weigart, A., and Rooney, E. (1974). *Family Socialization and the Adolescent*. Lexington Books, Lexington, MA.
- Vaughn, B., England, B., Sroufe, L. A., and Waters, E. (1979). Individual differences in infant-mother attachment at twelve and eighteen months: Stability and change in families under stress. *Child Develop.* 50: 971-975.
- Waters, E. (1978). The reliability and stability of individual differences in infant-mother attachment. *Child Develop.* 49: 483-494.
- Waters, E., Wippman, J., and Sroufe, L. A. (1979). Attachment, positive affect and competence in the peer group: Two studies in construct validation. *Child Develop.* 50: 821-829.
- Weiss, R. S. (1973, July). The contributions of an organization of single parents to the well-being of its members. *Fam. Coord.* 32:1-326.
- Weiss, R. S. (1974). The provisions of social relationships. In Rubin, Z. (ed.), *Doing unto Others*. Prentice-Hall, Englewood Cliffs, NJ.
- Weiss, R. S. (1982). Attachment in adult life. In Parkes, C. M., and Stevenson-Hinde, J. (eds.), *The Place of Attachment in Human Behavior*. Basic Books, New York.

APPENDIX A

Inventory of Parent and Peer Attachment

Respondents indicate whether the following items are *almost always or always true, often true, sometimes true, seldom true, or almost never or never true.*

Section I

1. My parents respect my feelings.
2. I feel my parents are successful as parents.
3. I wish I had different parents.
4. My parents accept me as I am.
5. I have to rely on myself when I have a problem to solve.
6. I like to get my parents' point of view on things I'm concerned about.
7. I feel it's no use letting my feelings show.
8. My parents sense when I'm upset about something.
9. Talking over my problems with my parents makes me feel ashamed or foolish.
10. My parents expect too much from me.
11. I get upset easily at home.
12. I get upset a lot more than my parents know about.

13. When we discuss things, my parents consider my point of view.
14. My parents trust my judgment.
15. My parents have their own problems, so I don't bother them with mine.
16. My parents help me to understand myself better.
17. I tell my parents about my problems and troubles.
18. I feel angry with my parents.
19. I don't get much attention at home.
20. My parents encourage me to talk about my difficulties.
21. My parents understand me.
22. I don't know whom I can depend on these days.
23. When I am angry about something, my parents try to be understanding.
24. I trust my parents.
25. My parents don't understand what I'm going through these days.
26. I can count on my parents when I need to get something off my chest.
27. I feel that no one understands me.
28. If my parents know something is bothering me, they ask me about it.

Section II

1. I like to get my friends' point of view on things I'm concerned about.
2. My friends sense when I'm upset about something.
3. When we discuss things, my friends consider my point of view.
4. Talking over my problems with my friends makes me feel ashamed or foolish.
5. I wish I had different friends.
6. My friends understand me.
7. My friends encourage me to talk about my difficulties.
8. My friends accept me as I am.
9. I feel the need to be in touch with my friends more often.
10. My friends don't understand what I'm going through these days.
11. I feel alone or apart when I am with my friends.
12. My friends listen to what I have to say.
13. I feel my friends are good friends.
14. My friends are fairly easy to talk to.
15. When I am angry about something, my friends try to be understanding.
16. My friends help me to understand myself better.
17. My friends are concerned about my well-being.
18. I feel angry with my friends.
19. I can count on my friends when I need to get something off my chest.
20. I trust my friends.

21. My friends respect my feelings.
22. I get upset a lot more than my friends know about.
23. It seems as if my friends are irritated with me for no reason.
24. I tell my friends about my problems and troubles.
25. If my friends know something is bothering me, they ask me about it.

APPENDIX B

Factor Loadings of Parent Attachment Items*

Item	Factor I: Communication	Factor II: Trust	Factor III: Alienation
1	364	714	-203
2	432	545	-251
3	238	505	-217
4	174	680	-394
5	-423	-019	470
6	583	308	-218
7	491	213	-300
8	611	203	-127
9	-274	-377	447
10	130	411	-457
11	-143	-383	519
12	-217	-217	552
13	324	650	-241
14	258	718	-207
15	-544	023	-304
16	604	450	-322
17	726	268	-522
18	-063	-417	522
19	-330	-297	467
20	742	380	-127
21	443	470	-453
22	-186	-244	541
23	401	605	-281
24	405	521	-193
25	-332	-352	644
26	675	371	-276
27	-240	-193	656
28	605	366	269

*Orthogonal analysis with factors limited to three, performed on final set of items. Decimals omitted.

Factor Loadings of Peer Attachment Items*

Item	Factor I:	Factor II:	Factor III:
	Trust	Communication	Alienation
1	312	542	049
2	236	605	-166
3	432	484	-142
4	-246	-123	552
5	527	216	-219
6	386	457	-292
7	219	645	-174
8	537	298	-280
9	096	204	474
10	-144	-099	531
11	-398	-191	454
12	610	424	-141
13	678	341	-229
14	577	339	-306
15	602	396	-187
16	205	560	-147
17	443	547	-041
18	-073	-185	450
19	547	480	-110
20	749	206	-027
21	720	295	-148
22	-070	-287	494
23	-301	-115	518
24	300	708	-155
25	312	701	-191

*Orthogonal analysis with factors limited to three, performed on final set of items. Decimals omitted.

Israeli Adolescents' Self-Image Profile

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Seven hundred and seventy-two Jewish Israeli male and female high school students (aged 14-18) responded to a Hebrew version of the Offer Self-Image Questionnaire (OSIQ). Results show that, much like the American adolescents, the majority of the Israeli respondents are happy and well-adjusted, although a noticeable minority experiences some personal trouble. Gender and age differences show that males hold a more positive self-image than do females, and that age differences among males are larger than among females. Comparisons with the American norm sample indicate that the Israeli and American self-image profiles differ significantly on only three scales. Israelis report a higher impulse control, and lower morals and vocational and educational goals. These results are discussed in terms of ecological and cultural explanations, and the need for extending OSIQ research to additional sectors of Israeli society is noted.

INTRODUCTION

This study describes the phenomenological self of Israeli adolescents, assessed by means of the Offer Self-Image Questionnaire. The primacy of a self-image description to the understanding of adolescents and prediction of their behavior, by both adults and adolescents, is discussed by Offer, Ostrov, and Howard (1981a). These authors contend that, whether the objective is knowledge for its own sake, prediction of behavior, or empathic

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