

# Adolescents' Attachment Representations and Developmental Tasks in Emerging Adulthood

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The association between attachment representations and adolescents' coping with 3 developmental tasks of emerging adulthood—leaving home, advancing in the capacity for mature intimacy, and developing individuation—was examined. Israeli male adolescents ( $N = 88$ ) were administered the Adult Attachment Interview during their high-school senior year. A year later, they and their friends reported on the adolescents' adjustment to mandatory military service. Three years later, participants and their parents reported on the adolescents' capacity for intimacy using an in-depth interview and on their individuation. An autonomous state of mind was associated with better coping with basic training and with a higher capacity for mature intimacy but was not associated with markers of individuation. The results highlight the importance of attachment representations in shaping an individual's developmental trajectory.

The aim of this study was to examine the association between attachment representations and successful coping with developmental tasks of emerging adulthood. Three of the most salient developmental tasks of this period were examined: (a) coping effectively with the home-leaving transition, (b) advancing in the development of the capacity for mature intimacy in friendships and in romantic relationships while maintaining close and autonomous relationships with parents, and (c) developing a sense of efficacy and individuation (Arnett, 2000, 2001). Although these developmental tasks start evolving before late adolescence (Collins & Sroufe, 1999; Furman, Brown, & Feiring, 1999; Sullivan, 1953), during that period and in emerging adulthood they are deemed more central and salient (Allen & Land, 1999; Gray & Steinberg, 1999). Attachment representations are assumed to guide one's expectations, feelings, and information processing as well as emotion regulation in situations that are attachment related (Bretherton & Munholland, 1999). Hence, individual differences in these rep-

resentations are expected to be implicated in functioning related to these developmental tasks (Allen & Land, 1999; Cassidy, 1999; Sroufe, 2002). The current study examined longitudinal trajectories of psychosocial development in adolescents with secure (autonomous) and insecure attachment representations during emerging adulthood.

## Attachment Representations

The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) has been used extensively to examine attachment representations in adolescence and adulthood. The AAI's coding is based on the participant's reflections and evaluations, which are considered a manifestation of his or her *state of mind* with regard to attachment (Main & Goldwyn, 1998). Individuals are classified as having a secure state of mind, termed *autonomous*, if they are coherent in discussing and evaluating their experiences. In general, autonomous individuals maintain a balanced view of early relationships, value attachment relationships, and view attachment-related experiences as influential in their development. Having internalized secure representations, these individuals are expected to be able to cope in a flexible manner. They are also expected to be able to forge and maintain close, intimate, and trustworthy relationships, not only with their attachment figures but also with other people, such as friends and romantic partners (Cassidy, 2001; Collins & Sroufe, 1999).

By contrast, insecure representations (dismissing, preoccupied, or unresolved) are evinced by low levels of coherency in discussing and evaluating attachment experiences. *Dismissing* individuals have difficulty recalling specific events and tend to minimize the importance of early attachment experiences on their personality or to idealize their childhood experiences. These individuals are expected to cope by deactivating and minimizing the expression of distress, and they tend to mistrust others and to keep emotionally distant from close others (Dozier & Kobak, 1992; Hesse, 1999). *Preoccupied* individuals display confusion or oscillation about past experiences, and their descriptions are marked by active anger or passivity. They are seen as enmeshed in their relationships with

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The collection of data reported here was partly supported by a research grant to Ofra Mayselless from the Faculty of Education, University of Haifa. Parts of this article were presented at a symposium at the Biennial Meeting of the Society for Research in Child Development, Albuquerque, New Mexico, April 1999, and at a symposium at the Biennial Meeting of the Society for Research on Adolescence, New Orleans, Louisiana, April 2002.

We thank the families that participated in this study for their willingness to contribute their time and experience and for sharing with us some of their most precious moments. We also thank the very dedicated group of undergraduate and graduate research assistants who were involved in various phases of the research project. Special thanks are due Kathy Bell for her helpful and valuable observations and suggestions regarding an earlier version of the manuscript.

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their childhood attachment figures. It has been suggested that these individuals heighten their expression of distress and find it difficult to cope on their own or to form a relationship in which their autonomy is maintained (Cassidy & Berlin, 1994). A fourth insecure group is also identified by the AAI, which includes individuals who are *Unresolved* with regard to loss or trauma.

### Developmental Tasks of Young Adulthood

In most Western cultures, young men and women are expected to leave their parents' residence (Goldscheider & Davanzo, 1986) and to cope effectively with being apart from their parents and with the demands of the new environment. Autonomous adolescents, who evince better emotion regulation capacities than others (Cassidy, 1994), who can rely on others for comfort and help when in need (Belsky & Cassidy, 1994), and for whom separation poses less of a threat (Scharf, 2001), are expected to cope with this transition better than others. In contrast, preoccupied adolescents, for whom such separation poses a greater threat and who evince difficulties in emotion regulation under stressful situations (Cassidy, 1994), may show the worst coping with this transition. Finally, dismissing adolescents, who may meet such a separation with defensive dismissal of the difficulties, may still manifest problems in their coping but to a moderate degree; and these difficulties may be more discernible by others than by themselves (Kobak & Sceery, 1988).

In line with these expectations, in North America, where a large number of adolescents leave home to study in college, an autonomous state of mind has been associated with feeling less distress and anxiety and with reporting higher levels of social support during the first year in college (Kobak & Sceery, 1988). A preoccupied tendency has been associated with more stress and loneliness (Larose & Bernier, 2001). The present study expanded the examination of coping with the leaving-home transition, one of the key developmental tasks of emerging adulthood, by examining it in the Israeli context, where this normative transition is into the military milieu rather than to college.

In Israel, the great majority of the 18-year-old cohort of Jewish men (85%) leave their parents' homes for a period of 3 years' mandatory service in the Israel Defense Forces (IDF). Most of the women in the same age group (65%) perform mandatory military service of 20 months (Gal, 1986). Men and women who are identified as having serious adjustment problems (e.g., delinquency) or who are ultra-orthodox in their religious orientation, or women who keep the religious tradition, receive exemption from military service. In general, the army may be characterized as a highly demanding and rigid ecology (Gal, 1986). As young recruits enter military service, they are stripped of part of their personal identity; they must obey orders and fulfill duties even if these conflict with their personal desires. Furthermore, military service exposes many of the soldiers to difficult and stirring experiences that might enhance or hamper their successful negotiation of the age-appropriate developmental tasks. Although the military environment is difficult, the great majority of young recruits successfully complete their military service, adjust to and cope well with its hardships, and find these experiences valuable (Dar & Kimhi, 2001; Maysel, 1995). So we expected that in Israel, as in the North American context, an autonomous state of mind would be associated with better coping during this transition,

which would be revealed by less distress, better functioning, and a higher capacity to rely on parental support.

During emerging adulthood, young adults are also expected to expand their relationship network (Collins, Gleason, & Sesma, 1997) and to further develop their capacity for mature intimacy with peers (friends and romantic partners) as these relationships become more central in their affective world (Allen & Land, 1999). Indeed, establishing intimacy in close relationships with peers, particularly romantic partners, has been described as a central marker of emerging adulthood (Erikson, 1968). At the same time, adolescents are expected to negotiate their relationships with their parents, transforming them into more mature and autonomous ones while maintaining closeness and intimacy (e.g., Grotevant & Cooper, 1986).

Autonomous adolescents, who have internalized a positive model of themselves and of others, accordingly have trust in others and in themselves and have learned to balance closeness and autonomy in their relationships with their parents (Allen & Land, 1999). They may therefore have an advantage over others in developing intimate and autonomous close relationships with age-mates. In contrast, dismissing adolescents may be especially at a disadvantage with regard to this developmental task because they have mostly learned to distance themselves from close relationships and to be self-reliant (Collins & Sroufe, 1999). Finally, preoccupied adolescents, who tend to heighten their emotional display and neediness (Cassidy, 1994), may be able to forge some intimacy in their relationships with peers, but at the expense of separateness.

Research with adolescents has shown, as expected, that an autonomous/secure state of mind with regard to attachment is associated with better quality of friendships and romantic relationships and with higher perceived support from parents (Kobak & Sceery, 1988). For example, attachment security has been associated with the capacity to balance autonomy and relatedness in the relationship with parents (Allen, Hauser, Bell, & O'Connor, 1994; Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993). Further, attachment security has been associated with having secure working models of relationships with friends (Furman, Simon, Shaffer, & Bouche, 2002) and with exhibiting fewer disruptive behaviors toward friends, such as ignoring them or rejecting their suggestions without discussion (Zimmermann, Maier, Winter, & Grossmann, 2001).

Furthermore, adults' and adolescents' secure attachment representations were related to ratings of more positive dyadic processes during an observed interaction with the romantic partner both concurrently (Cohn, Silver, Cowan, Cowan, & Pearson, 1992; Crowell, Treboux, Gao, et al., 2002) and longitudinally (Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001) and to secure representations of relationships with romantic partners (Crowell, Fraley, & Shaver, 1999; Crowell, Treboux, & Waters, 2002; Owens et al., 1995). In addition, adults' AAI classifications predicted feelings of intimacy as part of romantic relationships (Cohn et al., 1992; Crowell, Treboux, & Waters, 2002). Together, these studies demonstrate that state of mind with regard to attachment is associated with close relationships with parents, friends, and romantic partners.

Another age-normative change during emerging adulthood involves advancement in the process of individuation, which includes the achievement of some degree of self-definition (Blos,

1979; Hill & Holmbeck, 1986). Young adults, at least in Western cultures, are expected to increase their levels of individuation and differentiation of the self, as demonstrated by the capacity to rely on themselves and to make independent decisions that they follow through on competently and in a mature manner (Arnett, 2001; Bowlby, 1973; Greenberger & Sorensen, 1974). Autonomous adolescents may have an advantage over others in this domain too. Having internalized a resilient and positive self-perception, they are better able to venture into independence and exploration on their own (Grossmann, Grossmann, & Zimmermann, 1999). In contrast, preoccupied adolescents, for whom excessive closeness comes at the expense of autonomy and resiliency, may evince the lowest competence in this developmental task, whereas dismissing adolescents, who have internalized a self-sufficient stance, may on some indicators, in particular self-reported ones, look even more individuated and mature than their autonomous counterparts. Assuming that this maturity reflects defensive processes, we might expect their vulnerability to be exposed either by observers or when instigating difficult experiences occur.

Although previous research with the AAI has not directly examined processes of individuation, state of mind with regard to attachment has been linked to related aspects. For example, autonomous individuals were rated by others (observers or peers) as more ego resilient than insecure individuals (Kobak & Sceery, 1988; Zimmermann, 1999). However, and more pertinent to issues of individuation, autonomous youngsters did not differ from insecure youths in their reported self-esteem or in their sense of competence and personal control (Crowell, Fraley, & Shaver, 1999; Zeanah et al., 1993). Thus, when the association of an autonomous state of mind with markers of individuation was researched, the results depended on the measures used (i.e., self-report vs. observations) and were less consistent than those regarding the association with markers of close relationships. The main objective of this study was to examine the extent to which state of mind with regard to attachment would be associated with the successful negotiation of each of these developmental tasks. In general, we expected that autonomous adolescents would show better coping than insecure adolescents in each of the developmental tasks.

As indicated above, we pursued this objective in Israeli society, where the transition from adolescence to emerging adulthood occurs in the context of military service. Experiences during military service might affect the successful negotiation of the developmental tasks examined in this study. For example, for some recruits, especially those who go on to command positions, military service includes responsibilities rarely assigned to adolescents at that age (e.g., responsibility for the lives of others or for very expensive equipment). These challenges might enhance the development of efficacy and individuation (Dar & Kimhi, 2001) and even contribute to the recruits' capacity for empathic concern for others (Mayseless, 1993). Similarly, successful negotiation of the challenges encountered during military service might contribute to feelings of confidence, efficacy, and individuation. In addition, stressful events might affect relationships with close others and might also expose vulnerabilities or contribute to an individual's hardness and individuation. These experiences could magnify preexisting differences between autonomous and insecure individuals: The former may be able to make use of these challenging encounters, whereas the latter might be more vulnerable in such

circumstances. Accordingly, the moderating effects of experiences during military service were also explored in this study.

## Method

### Sample

We focused on the developmental trajectories of male adolescents. Females' military service in Israel is shorter, is generally less physically and mentally arduous, and is relatively less authoritarian in terms of discipline and demands than is males' military service (Gal, 1986). These differences might affect the developmental trajectories of the two sexes and underscore the importance of examining developmental processes with a large enough sample of each sex. To meet statistical power considerations, we decided to focus on males only rather than split the sample into two smaller groups of males and females.

The study reported here is part of a longitudinal project examining parent-son relationships in Israel during late adolescence and young adulthood. Participants in the study were identified and recruited from published lists of high-school seniors in metropolitan middle-class neighborhoods in the northern part of Israel. All of the families with an adolescent son on these lists, which covered all the high schools in these neighborhoods, were contacted by mail and then by phone. They were informed about the research, and after we screened out families that did not meet the research requirements (i.e., nonintact families, families that recently immigrated to Israel, families whose son's conscription was deferred), the remaining families were asked for their cooperation. We limited our choice of subjects to intact families and to families that had not immigrated recently to Israel (i.e., families for whom life had been fairly stable) so as to avoid diverse sources of variation. This constraint did not result in a highly skewed sample because divorce rates in Israel are much lower than in the United States (8.5% according to the *Statistical Abstract of Israel*, 1996) and because in these neighborhoods new immigrants comprise only 5% of the population (*Statistical Abstract of Israel*, 1996). Deferment of military service occurs because IDF authorities distribute the conscription dates throughout the year according to the adolescents' age. Owing to time constraints on the research project, we only included families in which the son's conscription was due up to a year following the first assessment.

The active consent of all three family members concerned (father, mother, and son) was required for a family to be included in the study. Participants did not receive any payment, only small gifts for their participation. As the current study required an investment of several hours by each family member, most families who declined to participate did so because of time pressures. The final sample included 88 families, which reflected consent by 41% of eligible families. In Israel, parental level of education, density of living quarters, and neighborhoods are considered better indices of socioeconomic status (SES) than is income (Dar & Resh, 1991). In addition, families of Western origin (Europe or North America) are more prevalent in high SES levels. In line with the prevailing characteristics of the middle-class neighborhoods from which they were sampled, the families in our sample were primarily well educated (80% of the fathers and 74% of the mothers had at least a college education), were of Western origin (70% of families), and had living quarters of moderately low density (0.98 person per room). These characteristics (i.e., academic education, moderate living quarters density) are similar to those of middle-class families in Israel (*Statistical Abstract of Israel*, 1996).

At the time of the first assessment, adolescents' ages ranged from 17 to 18 years. The number of children in these families varied between two and five, with a mean of 2.93 ( $SD = 0.74$ ). About a third of the adolescents (37%) were firstborn children. About 70% of the families described themselves as secular, and the remainder described themselves as upholding the Jewish religious tradition but not in an orthodox manner. None of these background variables was associated with the variables assessed in this study. In terms of military service, 59% of the adolescents were assigned

to combat units and 41% to noncombat units. Thirty percent served as officers, and 70% served as rank-and-file soldiers.

### Procedure

The adolescents were interviewed (AAI) during their senior year in high school, approximately 1 year prior to their conscription, and filled out questionnaires (Time 1: late-adolescence assessment). Halfway through the basic training period (approximately 5 weeks after conscription) during a weekend vacation, 84 of the adolescents filled out questionnaires regarding their coping with this transition (Time 2: basic training assessment), and in addition, they were asked to provide the names of two peers (friends from their basic training unit who knew them well). These peers were contacted by the research team and rated the respondents' coping and adjustment by means of a phone interview. Logistic problems prevented us from gathering peers' data for more than a subsample of the adolescents ( $n = 64$ ). This subsample did not differ from the rest, for whom peers' reports were not available, on any of the background variables or the measures used in this study.

Finally, at the end of the participants' 3-year mandatory military service (Time 3: emerging adulthood assessment), 83 of them were interviewed, during a furlough, regarding their intimacy status, and 74 participants and their parents (mothers and fathers) were able to complete questionnaires. No difference existed between participants who completed the Time 3 assessment and the others on any of the background variables or the measures used in this study.

### Measures

#### Time 1: Late-Adolescence Assessment

The AAI and measures assessing the adolescent's self-perception and relationships with parents were administered to examine the contribution of state of mind to coping with the leaving-home transition, involvement of the capacity for intimacy, and efficacy and individuation during emerging adulthood over and above psychosocial functioning in relevant aspects during late adolescence. Self-variables and affective relationships with parents at Time 1 were considered relevant psychosocial covariates for Time 2 and Time 3 developmental outcomes. Adolescents who evince better self-concept and closer relationships with parents are more likely to cope better with the leaving-home transition (e.g., Kobak & Sceery, 1988; Larose & Bernier, 2001), to develop intimate relationships with peers (e.g., Azmitia, 2002; DeHart, Murray, Pelham, & Rose, 2003; Murray, Holmes, & Griffin, 2000), and to acquire higher levels of individuation (e.g., Moore, 1987). Close relationships with parents as well as positive self-concepts have both been shown to contribute to each of these achievements. Because these psychosocial attributes are related to attachment representations (e.g., Allen & Land, 1999), we wanted to control for their baseline levels in order to examine the extent to which AAI representations would predict success in these developmental tasks even after these attributes were controlled.

**Attachment assessment.** The Adult Attachment Interview (AAI; Main & Goldwyn, 1998) is a structured interview designed to arouse memories and emotions regarding attachment experiences. Participants were requested to give general descriptions of their relationships with their parents and to support these descriptions with specific biographical incidents. The interviewees were asked to give explanations for their parents' behavior, to describe the nature of their current relationship with their parents, and to assess the influence of childhood experiences on their development and personality. Minor adaptations were made to the interview's closing questions, which in their original form inquire about the subject's own children. Instead, the adolescents were asked to imagine how they would feel and behave if and when they became parents themselves.

Scores were assigned to inferred childhood experiences of love, rejection, involvement, inattentiveness (neglect), and pressure to achieve exerted by each parent and to the respondent's state of mind with regard to

idealization, anger, derogation, insistence upon inability to recall childhood, passivity, and coherence. The coding of the AAI is based on the participant's reflections and evaluations and assigns transcripts to the following state-of-mind groups: *secure-autonomous*, *insecure-dismissing*, *insecure-preoccupied*, and *unresolved trauma or loss* (Main & Goldwyn, 1998). The interviews were audiotaped and transcribed verbatim. Miri Scharf and Inbal Kivenson-Baron, both reliable coders of the AAI, analyzed transcripts identified by number only. Twenty-one transcripts were analyzed by these two coders, and interrater reliability was 95% ( $\kappa = .90$ ). Disagreements between coders were resolved by conference. Intraclass reliabilities on the AAI scales were all above .90 except for mother's involvement, at .73.

**Self-variables.** The 7-item Self-Esteem scale from the Weinberger Adjustment Inventory (WAI; Feldman & Weinberger, 1994) was used to assess self-evaluation or self-esteem (e.g., "I feel that I am really good at things I try to do"). Participants were asked to rate on a 5-point scale the extent to which each statement applied to them. Cronbach's  $\alpha$  was .73. The questionnaire has good internal reliability and concurrent and predictive validity (e.g., D'Angelo, Weinberger, & Feldman, 1995).

The Personal Control scale from the Spheres of Control questionnaire (Paulhus, 1983) was used to assess internal locus of control. Participants were asked to rate on a 7-point scale the extent to which a statement described them (10 items, e.g., "My major accomplishments are entirely due to hard work and intelligence"). The reliability and the convergent and discriminant validity of the scale have been demonstrated (for a detailed description, see Robinson, Shaver, & Wrightsman, 1991). Internal reliability in the present study was moderate: Cronbach's  $\alpha = .61$ .

**Relationships with parents.** The Family System Test (FAST; Gehring & Wyler, 1986) was used to assess closeness in relationships with parents. Participants were asked to place figures representing father, mother, and son on a board of  $9 \times 9$  squares in a way that represented how close family members felt toward each other. Perceived closeness was measured by the distances between the figures on the board; distance on horizontally and vertically adjacent squares was scored 1, and distance on diagonally adjacent squares was scored 1.44. The FAST has been used in normal and clinical samples and showed good psychometric properties (Gehring & Marti, 2001).

An 8-item version of the Social Support Questionnaire (B. R. Sarason, Shearin, Pierce, & Sarason, 1987; I. G. Sarason, Levine, Basham, & Sarason, 1983), a well-validated scale, was used to assess support availability pertaining to mother and father (e.g., "When you feel the need to talk to somebody who listens to you?"). Respondents were asked to report on a 1 (*not at all*) to 5 (*always*) scale the frequency with which they turned to fathers and to mothers in the situations described in the questionnaire. Cronbach's alphas were .85 and .87, respectively.

The demographic data questionnaire solicited data about the adolescent's family and personal history, such as his birth order, age, and level of school achievements, as well as information about his parents' country of origin and their educational level.

#### Time 2: Basic Training Assessment

Level of distress, coping strategies, and functioning, as well as the capacity to rely on parents for support, were examined as indicators of coping with the Israeli normative leaving-home transition.

**Adolescent's report.** Level of distress was assessed by nine items from the Mental Health Inventory (Veit & Ware, 1983; e.g., feeling depressed, lonely, nervous, anxious, or in control). Adolescents were asked to answer each item using a 1 (*never*) to 6 (*all the time*) scale in reference to their feelings in military service during the previous 2 weeks (Cronbach's  $\alpha = .76$ ). The measure has shown high internal reliability and good test-retest reliability as well as construct and discriminant validity (e.g., Florian & Drory, 1990).

The Ways of Coping scale (Folkman & Lazarus, 1980) measures cognitive and behavioral strategies people use in coping with stressful situa-

tions. Participants were asked to indicate on a 1 (*not at all*) to 5 (*to a very large extent*) scale the extent to which they employed each of these strategies during their basic training. We included Problem-Focused Coping (six items, e.g., "I concentrated only on what should be done immediately") and Emotion-Focused Coping (eight items, e.g., "I wished that I could change what was happening or how I felt"). Cronbach's alphas were .53 and .75 for these two scales, respectively. The Problem-Focused Coping scale of this version (the community version) has typically low internal reliabilities (Folkman & Lazarus, 1985), probably because the items reflect different coping efforts that may be somewhat mutually exclusive. (For a similar point, see Carver, Scheier, & Weintraub, 1989.) Results from this study and others attest to the validity of the scale despite its low internal reliability. For example, Mikulincer and Florian (1995) found the same scale to be positively associated with support seeking and secondary appraisal. In our study as well, this scale was significantly associated with higher levels of self-esteem and internal locus of control and with lower levels of distress.

A measure of sensitive responding of parents during basic training was devised specifically for this study to reflect the adolescent's perception of each parent's responsiveness, thus indicating his capacity to rely on parents for support (five items, e.g., "I share with my parent what I'm going through"; "He/she listens to what I have to say"). Cronbach's alphas were .75 and .81 for the mother's and the father's scales, respectively.

*Peers' report.* A peers' appraisal of adjustment questionnaire was designed to assess adjustment and coping by different observers (Catz & Orbach, 1990). The questionnaire included dimensions that tapped the peers' evaluations of the IDF recruit's adjustment. Two peers from basic training were asked to answer these questions using a 1 (*not at all*) to 5 (*very much*) Likert scale. The mean of their answers to two scales was computed: The Distress scale measured how stressed the focal adolescent was (three items, Cronbach's  $\alpha = .86$ ), and the Instrumental and Social Functioning scale measured the extent to which he successfully coped with the demands of basic training, including instrumental, social, and discipline aspects (six items, Cronbach's  $\alpha = .82$ ).

### Time 3: Emerging Adulthood Assessment

*Relationships with close others.* The capacity to forge mature intimacy with friends and romantic partners while maintaining closeness with parents and negotiating mature and egalitarian relationships with them was assessed by means of an interview with the participants and questionnaires administered to the participants and their parents.

The Affective Relationships Scale (Takahashi & Nagima, 1994) assesses attachment-related affective and behavioral qualities in close relationships. Participants (who were now emerging adults) were asked to rate on a 5-point scale the extent to which a statement characterized their relationships with their mothers and fathers (12 items, e.g., "When I receive bad news I want to be with X"). Cronbach's alphas were .92 and .91, respectively. In addition, parents were asked to report on the affective relationships between their sons and themselves (e.g., "When my son receives bad news he wants to be with me"). Cronbach's alphas were .75 for mothers and .76 for fathers. (For reliability and validity of the scale, see Takahashi & Sakamoto, 2000.)

A measure of positive changes in relationships with parents following military service was devised specifically for this study. Participants (the emerging adults) were asked to rate on a 5-point scale the extent to which changes in different dimensions had occurred (six items, e.g., more closeness, greater mutual acceptance, greater mutual understanding and appreciation). Cronbach's alphas were .75 and .81 for mothers and fathers, respectively.

The Intimacy Status Interview (Orlofsky, 1993; Orlofsky & Roades, 1993) is a 60- to 90-min semistructured interview designed to examine individuals' interpersonal attitudes and behavior and their capacity for intimacy in friendships and romantic relationships. Participants were asked about emotional closeness, conflict resolution, involvement and autonomy,

satisfaction, and commitment in their relationships with friends and with past and/or current romantic partners. The interview assesses the capacity for intimacy on the basis of past and present relationships even if the respondent does not have a current romantic relationship. The interviews were audiotaped and rated according to the manual (Orlofsky & Roades, 1993) by two raters using several rating scales, all ranging from 1 (the low end of the scale) to 5 (the high end). To establish reliability, each of the two raters coded 25 interviews. Two dimensions of the capacity for intimacy were assessed: closeness and separateness. Closeness was assessed by means of four scales: Intrapersonal Self-Disclosure (confiding and sharing of worries, problems, and personal matters); Interpersonal Disclosure (sharing openly positive and negative feelings); Caring and Affection (genuine caring for the partner); and Knowing Partner's Characteristics. Interrater reliabilities were .94, .97, .94, and .91, respectively, for romantic relationships and .93, .92, .83, and .91, respectively, for friendships. A composite closeness scale was constructed by averaging across the four scales (Cronbach's  $\alpha = .96$  in romantic relationships and .91 in close same-sex friendships).

Separateness was assessed by three rating scales: Maintenance of Own Interests (maintaining own interests while caring for the partner's needs and wishes); Acceptance of Partner's Separateness (encouragement and valuing of the partner's autonomy); and Perspective Taking (the capacity to perceive and appreciate the partner's perspective). Interrater reliabilities were .76, .73, and .93, respectively, for romantic relationships and .63, .77, and .93, respectively, for friendships. A composite Separateness scale was constructed by averaging across the three scales (Cronbach's  $\alpha = .77$  in romantic relationships and .80 in friendships). Because correlations between closeness and separateness for each type of relationship were high ( $r \cong .75$ ), we averaged across the two scales to construct one composite scale for each relationship reflecting the general capacity for mature intimacy in romantic relationships and in friendships.

*Indicators of individuation.* Several measures assessing various facets of individuation (differentiation of the self-system, efficacy, and maturity) were included. The Differentiation of Self Scale (Haber, 1993) is a 24-item unidimensional scale that measures intellectual and emotional differentiation of the self-system on the basis of Bowen's (1978) conceptualization (e.g., "I will change my opinion more on the basis of new knowledge than on the basis of the opinions of others"; "My life is guided by a clear set of goals that I have established for myself"). The scale has demonstrated internal reliability and content and construct validity (Garbarino, Gaa, & Gratch, 1995; Haber, 1990). Emerging adults and each parent filled out the questionnaire pertaining to the emerging adult's differentiation. Cronbach's alphas were .87, .89, and .85 for the emerging adults', mothers', and fathers' reports, respectively.

The General Perceived Self-Efficacy Scale (Schwarzer, 1993) is a 10-item scale pertaining to optimistic beliefs about being able to cope with a large variety of stressors (e.g., "No matter what comes my way, I am usually able to handle it"; "I can solve most problems if I invest the necessary effort"). The scale has proven reliable and valid in various field studies and in cross-cultural research (Schwarzer, Mueller, & Greenglass, 1999). Emerging adults, mothers, and fathers filled out the scale with respect to the emerging adult's efficacy. Cronbach's alphas were .83, .87, and .87, respectively.

A measure of perceived influence of military service on the emerging adult's maturity was devised specifically for this study and included eight items depicting aspects deemed central to being considered a mature adult (e.g., "learned to cope with changes and difficulties," "developed wider perspective on world and life"; Mayselless & Scharf, 2003). Emerging adults were asked to indicate on a 1 to 5 scale the extent to which military service affected them in this regard (Cronbach's alpha was .86).

*Background information.* The Military Experiences Questionnaire solicited data about the adolescent's experiences and positions during his military service, such as whether he was in a command position and his evaluation of military service (satisfaction with the service and its positive

effect). These were used to examine the moderating effect of military service.

The Stressful Life Events Questionnaire (Levav, Krassnoff, & Dohrenwend, 1981) was used to assess the experience of stressful situations (relevant to the Israeli culture) to control for potentially intervening variables. A shortened version including seven stressful events (e.g., losses, experiencing terror events, illnesses, and termination of important relationships) and three blank lines on which participants were asked to add stressful events (if relevant) was used. Participants were asked to indicate whether they had experienced any of these events in the time between the first and third assessments. A score reflecting the number of such events or experiences was computed.

## Results

### *Data Reduction*

To increase the power of the analyses, we tried to reduce the number of variables without losing meaningful distinctions among them. Because correlations between adolescents' reports regarding their relationships with mothers and fathers were high (Pearson  $r$ s ranged between .77 and .95), we constructed new composite scales that averaged across mothers' and fathers' scores. This procedure was undertaken for closeness to parents, support from parents (in the Time 1 assessment), parents' sensitive responding (in the Time 2 assessment), as well as affective relationships with parents and positive changes in the relationships with parents (in the Time 3 assessment). The same procedure was undertaken with parents' (mothers' and fathers') reports in the Time 3 assessment regarding affective relationships with their sons and their sons' self-efficacy and differentiation of self (where  $r$ s ranged from .38 to .48). Although these correlations were only moderate in magnitude, this procedure was undertaken because mothers' and fathers' reports on all the Time 3 measures were not significantly different, and a similar pattern of results was observed when the reports by mothers and fathers were analyzed separately.

### *Analytic Overview*

We first examined differences in late-adolescence psychosocial attributes between groups of participants differing in their states of mind. We then computed multivariate analyses of variance (MANOVAs) to examine differences between state-of-mind groups with regard to indicators of each of the developmental tasks according to time of assessment (leaving home—Time 2, intimacy/close relationships and individuation—Time 3), following them with post hoc tests when they were significant. For each of the significant post hoc tests, we also conducted an analysis of covariance (ANCOVA) with Time 1 psychosocial attributes serving as covariates. Finally, we examined military service experiences as moderators by running hierarchical regression analyses with regard to the developmental outcomes of Time 3 (intimacy/close relationships and individuation).

### *Late-Adolescence and Basic Training Assessments*

The assessment of the participants' states of mind with regard to attachment resulted in 43 participants being classified as autonomous (48.9%), 40 as dismissing (45.5%), and 5 as preoccupied (5.7%). None of the participants was classified as unresolved. Because only 5 participants evinced a preoccupied state of mind,

and because preoccupied and dismissing individuals might be expected to have different psychosocial trajectories (Allen & Land, 1999; Kobak & Cole, 1994), we focused on the differences between autonomous and dismissing adolescents.

Two MANOVAs were conducted with state of mind (autonomous or dismissing) serving as the independent variable and the late-adolescence measures of psychosocial functioning as the dependent variables in order to examine baseline differences. The MANOVA conducted with state of mind serving as the independent variable and self-variables serving as dependent variables was not significant. As can be seen in Table 1, autonomous and dismissing participants did not differ in their perceptions regarding self-esteem and personal control. However, the MANOVA regarding relationships with parents was significant,  $F(2, 80) = 4.62$ ,  $p < .01$ . Adolescents with autonomous state of mind depicted more closeness to (less distance from) parents and reported receiving more support from parents than did their dismissing counterparts (see Table 1 for means and results of  $t$  tests).

A MANOVA conducted to examine respondents' reports regarding adjustment during basic training was marginally significant,  $F(3, 76) = 2.51$ ,  $p = .07$ . Follow-up  $t$  tests evinced no differences between the groups in levels of distress and emotion-focused coping, yet autonomous participants reported a higher level of problem-focused coping (see Table 1 for means and results of  $t$  tests). A MANOVA regarding peers' reports indicated that peers perceived autonomous participants as adapting better than their dismissing counterparts,  $F(2, 55) = 3.14$ ,  $p < .05$ . Follow-up  $t$  tests (see Table 1) showed that this advantage was significant for the Instrumental and Social Functioning scale and was marginally significant with regard to peers' perception of the adolescent's distress. Finally, autonomous adolescents reported higher levels of parents' sensitive responding than did dismissing adolescents (see Table 1 for means and results of  $t$  tests).

To examine whether attachment representations predicted coping over and above late-adolescence functioning, we conducted several ANCOVAs with attachment representation as the between-subjects factor and Time 1 variables as covariates. Time 1 covariates included the self-variables (self-esteem and personal control) as well as a composite scale tapping supportive and close relationships with parents, which was based on the mean of the closeness (FAST) and the support (B. R. Sarason et al., 1987) scales after their standardization. The correlation between the scales ( $r = .48$ ,  $p < .01$ ) warranted such a procedure.

The effects regarding adolescents' problem-focused coping and peers' reports on the adolescent's instrumental and social functioning remained significant after we controlled for Time 1 covariates: ANCOVA  $F(1, 74) = 5.56$ ,  $p < .05$  and  $F(1, 52) = 7.62$ ,  $p < .01$ , respectively. However, state of mind did not predict parents' sensitive responding during the basic training period over and above late-adolescence variables, of which a supportive and close relationship with parents was the significant predictor,  $F(1, 74) = 17.11$ ,  $p < .01$ .

### *Emerging Adulthood Assessment*

Autonomous adolescents reported a higher level of positive affective relationships and positive changes in the relationships with their parents than did dismissing adolescents, MANOVA  $F(2,$

Table 1  
*Differences Between Adolescents With Autonomous and Dismissing State of Mind (Time 1 and Time 2 Assessments)*

Variable	Autonomous ( <i>n</i> = 43)		Dismissing ( <i>n</i> = 40)		<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Time 1 assessment						
Self-variables						
Self-esteem	4.03	0.66	4.20	0.51	-1.30	81
Personal control	5.14	0.74	5.32	0.65	-1.16	81
Relationships with parents						
Distance from parents (FAST)	2.06	1.09	2.78	1.65	-2.35*	81
Support from parents	2.79	1.00	2.09	0.70	3.63**	81
Time 2 assessment						
Adolescents' report						
Distress	( <i>n</i> = 42) 2.30	0.58	( <i>n</i> = 38) 2.15	0.60	1.10	78
Emotion-focused coping	1.93	0.53	1.92	0.65	0.11	78
Problem-focused coping	3.18	0.41	3.02	0.28	2.07*	78
Parents' sensitive responding	4.19	0.56	3.85	0.68	2.48*	78
Peers' report						
Peers' report of distress	( <i>n</i> = 33) 2.01	0.62	( <i>n</i> = 25) 2.32	0.70	-1.80†	56
Peers' report of instrumental and social functioning	4.12	0.38	3.74	0.70	2.63**	56

Note. FAST = Family System Test.  
 †  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

66) = 5.78,  $p < .01$  (see Table 2 for means and follow-up  $t$  tests). In addition, parents of autonomous adolescents reported higher levels of affective relationships with their sons than did parents of dismissing adolescents (see means and  $t$  test in Table 2). Finally, as expected, compared with their dismissing counterparts, autonomous adolescents showed a higher capacity for intimacy (closeness and separateness) in friendships and in romantic relationships, MANOVA  $F(2, 72) = 4.37$ ,  $p < .05$  (see Table 2 for means and follow-up  $t$  tests).

When Time 1 assessments (self-variables and relationships with parents) were controlled, attachment representations continued to significantly predict affective relationships with parents (adolescent's report) during the Time 3 assessment, ANCOVA  $F(1, 67) = 4.87$ ,  $p < .03$ , even after the significant contribution of Time 1 level of closeness to parents was taken into account,  $F(1, 67) = 2.74$ ,  $p < .01$ . Attachment representations also continued to significantly predict perceived positive changes in relationships with parents, ANCOVA  $F(1, 67) = 9.43$ ,  $p < .01$ , above Time 1

Table 2  
*Differences Between Adolescents With Autonomous and Dismissing State of Mind During Emerging Adulthood (Time 3 Assessment)*

Variable	Autonomous ( <i>n</i> = 38)		Dismissing ( <i>n</i> = 31)		<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Relationships with close others						
Affective relationships with parents—emerging adults' report	3.98	0.74	3.46	0.77	2.88**	67
Positive changes with parents—emerging adults' report	3.06	0.86	2.54	0.90	2.46*	67
Affective relationships—parents' report	4.10	0.51	3.83	0.43	2.28*	61
Intimacy interview						
Capacity for intimacy in romantic relationships	( <i>n</i> = 41) 3.33	0.84	( <i>n</i> = 34) 2.91	0.81	4.91*	73
Capacity for intimacy in friendships	3.40	0.62	2.98	0.61	8.82**	73
Indicators of individuation						
Differentiation of self—emerging adults' report	3.95	0.42	3.90	0.33	0.48	67
Differentiation of self—parents' report	3.83	0.36	3.85	0.29	-0.20	61
Self-efficacy—emerging adults' report	3.59	0.43	3.51	0.38	0.83	67
Self-efficacy—parents' report	3.60	0.36	3.56	0.31	0.57	61
Perceived influence of military service on maturity	3.82	0.70	3.48	0.63	2.05*	67

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

variables. Furthermore, attachment representations continued to predict affective relationships with parents from the parents' perspective above Time 1 variables, ANCOVA  $F(1, 61) = 4.29, p < .05$ , even after the significant prediction of Time 1 personal control,  $F(1, 61) = 4.59, p < .05$ . Finally, attachment representations continued to predict the capacity for romantic intimacy, ANCOVA  $F(1, 69) = 6.41, p < .01$ , as well as the capacity for friendship intimacy, ANCOVA  $F(1, 69) = 9.54, p < .01$ , above Time 1 variables, which did not significantly predict these outcomes.

A MANOVA conducted to examine the effects of state of mind with regard to attachment on the four indicators of individuation was not significant, nor were any of the follow-up  $t$  tests. As can be seen in Table 2, no differences emerged between the autonomous and dismissing participants in levels of differentiation of the self and general self-efficacy as assessed via emerging adults' and parents' perspectives. However, autonomous participants reported higher perceived military influence on their maturity than did dismissing participants (see Table 2 for means and  $t$  test). Attachment representations continued to predict a perceived positive influence of military service on maturity, ANCOVA  $F(1, 67) = 5.58, p < .05$ , above Time 1 variables, which were entered as covariates.

#### Military Service Experiences as Moderators

To examine the extent to which experiences during military service moderated the developmental trajectories of emerging adults with different attachment representations, we performed hierarchical regression analyses with regard to the developmental outcomes of Time 3. In the first step, we entered the block of variables examined during the late-adolescence assessment (self-esteem, personal control, supportive and close relationships with parents). In the second step, we entered attachment representations

(dummy coded: dismissing = 0 vs. autonomous = 1), and in the third step, we entered the block of military service variables. The military service variables examined were evaluation of military service, command position (officer vs. rank-and-file), and number of stressful life events (e.g., losses, illness) in the period between the Time 1 and Time 3 assessments. Last, in the fourth step, we entered the three interactions between the military service variables and attachment representations.

#### Predicting Relationships With Close Others

Close and supportive relationships assessed at Time 1 significantly predicted Time 3 level of affective relationships with parents from the emerging adult's perspective (see Table 3), and this first step was significant,  $F_{\text{change}}(3, 64) = 8.78, p < .01$ . As with the ANCOVA reported above, attachment representations, entered in the second step, further significantly contributed to the prediction,  $F_{\text{change}}(1, 63) = 4.87, p < .05$ . In addition, the interaction between number of stressful events during military service and attachment representations significantly contributed to the prediction ( $\beta = .34, p < .05$ ), and this fourth step approached significance,  $F_{\text{change}}(3, 57) = 2.23, p < .09$ . In general, autonomous participants reported similarly high levels of affective relationships with parents regardless of the number of stressful events they had experienced ( $M_s = 3.81$  and  $4.07$  for low and high stress levels, respectively). However, dismissing participants reported lower levels of affective relationships with parents when they had experienced stressful events than when they had not ( $M = 3.18$  and  $M = 3.78$ , respectively),  $t(29) = 2.25, p < .05$ .

As for the emerging adults' perception of positive changes in their relationships with their parents, only attachment representations, entered in the second step of the regression, proved significant,  $F_{\text{change}}(1, 63) = 7.66, p < .01, \beta = .38, R^2 = .13$ . Similarly,

Table 3  
Hierarchical Regression Analyses: Predicting Relationships' Quality at Time 3

Step and predictors	Affective relationships—emerging adults' report		Perceived influence of military service on maturity	
	$\beta$	$R^2$	$\beta$	$R^2$
Step 1		.29**		.02
Supportive and close relationships with parents	.46**		-.08	
Self-esteem	.14		-.06	
Personal control	.06		-.14	
Step 2		.05*		.08*
AAI classification	.24*		.30*	
Step 3		.04		.07
Satisfaction with military service	.11		.08	
Command position (0 = no, 1 = yes)	-.06		.03	
Number of stressful events	.04		.13	
Step 4		.07†		.09†
Satisfaction With Military Service $\times$ AAI	.73		.54	
Command Position $\times$ AAI	.17		-.06	
Number of Stressful Events $\times$ AAI	.34*		.45*	
Total $R^2$		.43		.26
Final model, $F(10, 57)$		4.28**		1.59

Note. For Adult Attachment Interview (AAI), 1 = autonomous, 0 = dismissing.  
†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

the regression regarding parents' reports of their affective relationships with their sons again only showed attachment representations, entered in the second step, as significantly contributing to the prediction,  $F_{\text{change}}(1, 65) = 4.90, p < .05, \beta = .29, R^2 = .07$ . Finally, with regard to capacity for intimacy in romantic relationships and in friendships, only attachment representations, entered in the second step, significantly contributed to the predictions:  $F_{\text{change}}(1, 65) = 7.66, p < .01, \beta = .35, R^2 = .11$  for romantic relationships, and  $F_{\text{change}}(1, 65) = 9.35, p < .01, \beta = .37, R^2 = .12$  for friendships.

### Predicting Indicators of Individuation

Concerning differentiation of the self (emerging adults' report), self-esteem from the Time 1 assessment was a significant predictor, but state of mind was not. Though none of the military service variables entered in the third step directly predicted differentiation of the self, the interaction between attachment representations and command position significantly contributed to the prediction, and this fourth step was significant,  $F_{\text{change}}(3, 57) = 2.77, p < .05$  (see Table 3). Examination of the interaction showed that officers with an autonomous attachment representation had higher levels of differentiation of the self ( $M = 3.91$ ) than did officers with dismissing representations ( $M = 3.52$ ),  $t(19) = 2.09, p < .05$ . By contrast, differentiation of the self for rank-and-file respondents did not differ as a function of their attachment security.

When parents' report regarding differentiation of self was predicted, none of the Time 1 variables was significant, including attachment representations. However, positive evaluation of military service, entered in the third step,  $F_{\text{change}}(3, 56) = 2.39, p < .05$  (see Table 4), as well as its interaction with attachment repre-

sentations, entered in the fourth step,  $F_{\text{change}}(3, 53) = 3.25, p < .05$ , were significant. Specifically, when evaluation regarding military service was high (above the median), autonomous adolescents showed higher differentiation of the self (as perceived by their parents) than did dismissing participants ( $M = 4.12$  and  $M = 3.85$ , respectively),  $t(14) = 2.43, p < .05$ . When evaluation was low (below the median), there was no significant difference between autonomous and dismissing participants in their self-differentiation. In addition, the interaction between command position and attachment representations was significant. Though none of the simple effects was significant, examination of the means indicated that officers with an autonomous attachment representation tended to have higher levels of differentiation of the self ( $M = 3.93$ ) than did officers with dismissing representations ( $M = 3.68$ ),  $t(19) = 1.76, p < .07$ . By contrast, differentiation of the self in rank-and-file respondents was similar for autonomous ( $M = 3.90$ ) and dismissing ( $M = 3.80$ ) respondents.

With regard to self-efficacy (emerging adults' report), only supportive and close relationships with parents at Time 1, entered in the first step, significantly contributed to the prediction,  $F_{\text{change}}(3, 64) = 2.99, p < .05, \beta = .27, R^2 = .12$ . With self-efficacy assessed by parents, only the interaction between positive evaluation of military service and attachment representations significantly contributed to the prediction, and this fourth step was significant,  $F_{\text{change}}(3, 53) = 2.85, p < .05$  (see Table 4). As with self-differentiation, when evaluation regarding military service was high (above the median), autonomous participants showed higher self-efficacy (as perceived by their parents;  $M = 3.85$ ) than did dismissing participants ( $M = 3.60$ ),  $t(14) = 2.33, p < .05$ . When evaluation was low (below the median), there was no

Table 4  
Hierarchical Regression Analyses: Predicting Individuation and Efficacy at Time 3

Step and predictors	Differentiation of self—emerging adults' report		Differentiation of self—parents' report		Self-efficacy—emerging adults' report		Self-efficacy—parents' report	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
Step 1		.10†		.07		.12*		.09
Supportive and close relationships with parents	.07		.11		.27*		.14	
Self-esteem	.34*		.001		.19		.01	
Personal control	-.08		.21		-.06		.23	
Step 2		.02		.00		.02		.01
AAI classification	-.13		-.02		-.14		-.10	
Step 3		.08		.11*		.02		.06
Satisfaction with military service	.17		.39**		.04		.22	
Command position (0 = no, 1 = yes)	.01		-.07		-.02		.13	
Number of stressful events	.22†		.14		.07		-.09	
Step 4		.09*		.07*				.09*
Satisfaction × AAI	-.10		1.50*		.03		1.69*	
Command × AAI	.59*		.51*		.23		.08	
Number of Stressful Events × AAI	.18		-.17		.07		-.29	
Total $R^2$		.31		.31		.18		.25
Final model								
$F$		2.39**		2.13*		1.18		1.94†
$df$		(10, 57)		(10, 53)		(10, 57)		(10, 53)

Note. For Adult Attachment Interview (AAI), 1 = autonomous, 0 = dismissing.  
†  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

significant difference between autonomous and dismissing participants in their self-efficacy.

When perceived influence of the military service on emerging adults' maturity was examined, attachment representations, entered in the second step, were significant after we controlled for Time 1 variables,  $F_{\text{change}}(1, 63) = 5.58, p < .05$  (see Table 3). In addition, the interaction between number of stressful events and attachment representations was significant ( $\beta = .45, p < .05$ ), although this fourth step only approached significance,  $F_{\text{change}}(3, 57) = 2.22, p < .09$ . In general, autonomous participants perceived greater influence of military service on their maturity than did dismissing participants, but this was significant only for those who experienced stressful events during their military service (range of events = 1 to 4;  $n = 30$ ;  $M_s = 4.10$  and  $3.46$ , respectively),  $t(28) = 2.77, p < .01$ . Autonomous and dismissing participants who were not exposed to stressful events during their military service ( $n = 39$ ) did not differ in terms of perceived influence of military service on their maturity.

## Discussion

### *Attachment Representations and Coping With the Leaving-Home Transition*

As expected, attachment representations were implicated in better coping with several developmental tasks of emerging adulthood. With regard to coping with the demands of basic training, autonomous individuals reported using more problem-focused coping than did dismissing individuals. In addition, peers of autonomous individuals in basic training perceived them to cope instrumentally and socially better than peers of dismissing adolescents. This advantage was apparent even after we controlled for Time 1 self-attributes, such as self-esteem and personal control, as well as support and closeness to parents. In addition, as expected during this stressful transition, autonomous individuals perceived their parents as more sensitively responsive to them than did dismissing individuals. The association between state of mind and peers' reports is especially compelling because it reflects an association across different informants. By complementing research in a different culture (North America) that examined a transition into a different context (college), our findings attest to the importance of attachment representations in coping with the leaving-home transition, a normative developmental task of youths in many Western societies.

Interestingly, instrumental and social functioning and problem-focused coping showed a clearer association with state of mind than did distress or emotion-focused coping. This finding may be related to the specific groups that we compared (autonomous and dismissing individuals). The display of intensified distress and the use of emotion-focused coping are expected to reflect mostly the coping strategy of preoccupied individuals (Cassidy & Berlin, 1994). Had we included such a group in our statistical analyses, we might have observed significant differences also in these measures.<sup>1</sup>

### *Attachment Representations and Close Relationships With Parents and Peers*

At the end of their military service, secure-autonomous individuals consistently showed better functioning than dismissing

young men in the close relationship domain as manifested in different relationships with friends, romantic partners, and parents) and as examined by various means (interviews, self-report questionnaires, parental reports). First, in an extensive interview used to assess the participants' inner capacity for intimate relationships (rather than the quality of one specific relationship), autonomous individuals displayed a higher capacity for intimacy in friendships as well as in romantic relationships, over and above the contribution of reported level of closeness with parents at Time 1.

The association between attachment representations and romantic intimacy is especially impressive given that our participants had spent those years in mandatory military service, a milieu limited in opportunities to socialize with the other sex and to invest in close and intimate romantic relationships (e.g., furloughs are infrequent and short; Scharf & Mayseless, 2001). Interestingly, a previous study conducted with respondents in late adolescence (Furman et al., 2002) found stronger associations between attachment representations and friendships than between attachment representations and romantic relationships. This was attributed to the fact that at that age, attachment processes are not expected to have emerged in most romantic relationships, whereas they may already be present in close friendships. In our study, the associations between attachment representations and the capacity for intimacy in friendships and in romantic relationships were moderate to high and similar in magnitude, thus underscoring the possibility that by this age (emerging adulthood), both types of relationships might involve attachment processes. Although a longitudinal design was used, caution should be exercised with regard to causal inferences. Because we did not control the baseline level of the various aspects of psychosocial functioning that we later assessed (i.e., intimacy in friendships), the association that we found might have reflected a Time 1 association between AAI representations and these psychosocial accomplishments (in which the direction of the effect was uncertain) and may not necessarily have demonstrated a developmental process.

Theoretical conceptualizations stress that during this period, emerging adults not only expand their social networks to include romantic partners but also negotiate their relationships with their parents, which are transformed into more mature and egalitarian ones (Allen & Land, 1999; Thornton, Orbuch, & Axinn, 1995). In line with these conceptualizations, we also found that an autonomous state of mind was associated with closer affective relationships between parents and emerging adults on the basis of both groups' perspectives. It also was associated with perceived positive changes in the relationships with parents toward more closeness, acceptance of each other, and mutual respect and apprecia-

<sup>1</sup> Although the number of preoccupied participants was too small to conduct statistical analyses, examination of the means of the small group of preoccupied males demonstrated that they reported the lowest levels of support from parents ( $M = 1.63$ ) during their senior high school year and the lowest levels of affective relationships with parents as emerging adults ( $M = 2.93$ ). During basic training, they reported the highest level of distress ( $M = 2.53$ ) and the highest level of emotion-focused coping ( $M = 2.09$ ). Their level of capacity for intimacy in romantic relationships was similar to the level of autonomous participants ( $M = 3.35$ ), and they were even higher than the autonomous group in their capacity for intimacy in friendship ( $M = 3.70$ ). However, their self-reported levels of differentiation of the self ( $M = 3.58$ ) and self-efficacy ( $M = 3.33$ ) were the lowest.

tion. Participants' state of mind was associated with these markers of better quality in the relationships with parents over and above the contribution of level of support and closeness with parents at Time 1, thus attesting to the unique contribution of state of mind to changes toward mutuality and maturity in these relationships.

Experiences during military service were not implicated in most of these accomplishments in the close relationship domain. However, the number of stressful events experienced during military service interacted with attachment representations in predicting the young adults' reports of their affective relationships with parents. Whereas autonomous individuals reported high levels of affective relationships with parents regardless of the number of stressful events they had experienced, dismissing individuals, in line with their emotion regulation strategy, seemed to distance themselves from their parents and showed lower levels of affective relationships with them when they had experienced stressful events than when they had not. Together, these results accentuate the significant contribution of attachment representations to developmental achievements during emerging adulthood in the domain of close relationships with parents, friends, and romantic partners. These contributions attest to the importance of state of mind in advancing these achievements and demonstrate that closer and more intimate relationships with peers develop in line with closer and more mutual relationships with parents, not at the expense of such relationships.

#### *Attachment Representations and Self-Efficacy and Individuation*

As for the third developmental task, attachment representations were not significantly associated either with the development of self-efficacy or with the differentiation of the self in terms of the capacity to make independent decisions and follow through on them without overreliance on others for approval. These nonsignificant results were evident from the emerging adults' own reports and from those of their parents (mothers and fathers). However, various aspects related to military service were implicated in differentially affecting the development of individuation and efficacy in autonomous individuals and dismissing individuals. First, a positive evaluation of military service enhanced the level of efficacy and differentiation of the self (reported by parents) in autonomous participants but not in dismissing participants. Second, being in a command position enhanced the level of differentiation of the self (reported by the emerging adults and by their parents) in autonomous participants but not in dismissing participants. Finally, in the emerging adults' own evaluations of the contribution of military service to their maturity, autonomous participants perceived it as advancing their maturity more than did dismissing participants, particularly if they had experienced stressful events.

Thus, although an autonomous state of mind was not associated in and of itself with higher individuation and self-differentiation, it seems to have predisposed autonomous individuals to make better use of challenging circumstances and, by capitalizing on these experiences, to advance in these capacities. Another way of interpreting these findings is to suggest that differences between autonomous and dismissing individuals become more apparent when stressful situations challenge them and expose personal vulnerabilities and/or sources of strength.

Similar processes were highlighted in a study examining the reactions of autonomous and dismissing adolescents to imagined separations (Scharf, 2001). In that study, autonomous adolescents showed better constructive coping in severe as opposed to mild separations, whereas nonautonomous adolescents evinced their lowest constructive coping in severe separations. In our study too, stressful or challenging experiences apparently underscored the capacity of autonomous individuals to mobilize their self-regulation competencies and coping skills. This effect is consistent with formulations advanced by attachment researchers that individual differences in attachment organization will be most apparent in stressful situations (Phelps, Belsky, & Crnic, 1998). In our study, these moderating effects of military service emerged in only some of the analyses and were variable with regard to type of experience or outcome. This variability suggests that different instigating experiences may be implicated in different developmental outcomes and that, in any event, the effects are not too strong. Future research may need to examine in more detail the range of vulnerabilities or resiliencies of autonomous and nonautonomous young adults and how they are affected by different instigating experiences.

#### *Variability in Outcomes Depending on the Developmental Task Assessed*

In our study, an autonomous attachment representation was not associated with concurrent reports of self-esteem and sense of control, nor did it show a direct (main effect) advantage with regard to markers of individuation and efficacy; rather, it showed only an interaction with these markers. By contrast, with indicators of close relationships, a main effect of attachment representations rather than an interaction of these representations with challenging experiences was apparent. This finding might be related to a perspective termed "the narrow view of attachment" by some attachment researchers (Belsky & Cassidy, 1994). According to this view, individual differences in attachment representations should be particularly apparent in some domains, mostly having to do with interpersonal relations (especially close relationships), and less in other domains (Goldberg, Grusec, & Jenkins, 1999; Weinfield, Sroufe, Egeland, & Carlson, 1999). Accordingly, attachment representations might be expected to be more strongly related to the development and evolution of the capacity for intimacy and closeness in close relationships but to be less influential in aspects related to the self-system, such as individuation. It seems that only challenging experiences during military service such as holding a command position or experiencing stressful events prompted the potential of autonomous individuals and created a distinction between them and dismissing individuals, revealing the former's advantage. The significant differences between autonomous and dismissing adolescents during basic training may be interpreted similarly. The demands of basic training, which IDF authorities deem the most difficult period of military service (Gal, 1986), may have acted as a challenging experience that instigated autonomous adolescents to realize their inner potential strength.

However, this pattern of results might also be related to the specific categories of attachment representations examined in this study (i.e., autonomous and dismissing). Given that dismissing individuals are conspicuous in their self-reliance, they may be expected to differ from autonomous individuals more in their

coping with the developmental task of intimacy than with that of individuation. Had we examined a group of preoccupied individuals, characterized as dependent and enmeshed, we might have observed significant differences between them and autonomous individuals in the realm of individuation as well (see Footnote 1).

Furthermore, dismissing individuals are also assumed to tend to portray themselves as individuated and self-sufficient even if they are not truly so (Kobak & Sceery, 1988). Their parents may have comparable needs to perceive their sons as self-reliant, as research regarding intergenerational transmission has shown (van IJzendoorn, 1995). Thus, the depiction of dismissing individuals by themselves and by their parents as having high levels of efficacy and individuation may be interpreted as a defensive portrayal. In line with this interpretation, when autonomous individuals evaluated the service positively and experienced the challenges and the responsibilities of being in command, they indeed reported higher levels of self-differentiation and efficacy. In contrast, the reports of the dismissing individuals seem to be more stereotypical, and perhaps more defensive, as they were not correlated with these experiences. Previous research similarly found few significant differences between autonomous and dismissing individuals when self-reports were used (e.g., Crowell et al., 1999). More objective measures (e.g., such as observations; Zimmermann, 1999), or measures that circumvent defensive portrayals (e.g., projective measures), might be able to expose clearer differences between autonomous and dismissing individuals even in the realm of individuation.

### *Implications and Limitations*

Because some of the information gathered from the participants in this study relied on self-report questionnaires, which as noted above are open to different biases (e.g., Dozier & Lee, 1995), we used various techniques in our study to try and circumvent such biases. For example, we utilized several methods (questionnaires, interview, and a spatial-configural task) and included different informants (adolescents, their parents, and their peers), although in some cases, such as the peers' reports, we obtained a reduced sample, a drawback that needs to be noted. Looking at this multi-method/multi-informant design, we should note that in our study, autonomous and dismissing adolescents significantly differed in close relationships with parents, even though self-report measures were used. Furthermore, the pattern of findings with regard to basic training assessment was similar in self-reports and peers' evaluations. Finally, the pattern of findings in Time 3 self-reports was similar to that in Time 3 parents' reports regarding the same constructs. Hence, though we cannot rule out self-report biases in some of the domains assessed in this study (i.e., individuation), it seems unlikely that these biases are the sole explanation for these results.

In our study, which included 88 adolescents, the group of preoccupied young men was too small ( $n = 5$ ) to allow statistical examination of their distinct psychosocial trajectory. Though insecure in their attachment representations, they are expected to differ from dismissing adolescents in their affect regulation strategies and in their defensive makeup (Cassidy & Berlin, 1994; Main, 1990), so they might evince a different trajectory of psychosocial development (see Footnote 1). It will be the task of future research to explore these developmental trajectories with a

sufficiently large sample of adolescents with different attachment representations, including the preoccupied representation. Note in this respect that the relatively small number of preoccupied adolescent males has already been observed in other studies (e.g., Kobak & Sceery, 1988; Larose & Bernier, 2001). The understanding of this seemingly gender-related variation also awaits future investigation.

This study was conducted in a unique cultural context and examined adolescents from intact middle-class families, so the generalizability of its findings to other contexts and social groups needs to be further explored. Nevertheless, because some of the findings of this study replicated previous results in other contexts (North American culture and the transition to college), the external validity of the findings is partly supported. Furthermore, this study focused only on the developmental trajectories of young men. Several theoretical frameworks (Gilligan, 1982; Josselson, 1996) as well as empirical research (Feldman, Gowen, & Fisher, 1998; Lapsley, Rice, & Shadid, 1989) suggest that young men's negotiation of the developmental tasks of emerging adulthood is different from that of young women. These differences warrant a separate examination to study the processes and precursors involved in women's negotiation of the developmental tasks of emerging adulthood.

Our study longitudinally examined developmental trajectories of male adolescents with regard to three developmental tasks across a 4-year time span and during an especially malleable period. At this formative and sensitive age, these young men had to adjust to a new and difficult authoritarian milieu, and they were exposed to demanding, challenging, and possibly highly stressful experiences. Thus, the association found between states of mind with respect to attachment and psychosocial developmental accomplishments is quite impressive and attests to the importance of attachment representations in guiding an individual's experiences as part of a specific course in a developmental trajectory. State of mind emerged as a unique contributor to the capacity to form intimate relationships with close peers and to the positive transformations in the relationships with parents over and above the contribution of the baseline quality of the relationships with parents.

What might be the processes that mediate the associations between state of mind and these trajectories? Previous conceptualizations have suggested that the autonomous state of mind carries with it positive generalized expectations regarding relationships and the self, internalization of better social competencies, as well as flexible and resilient emotion regulation (Collins & Sroufe, 1999). Furthermore, it has been suggested that state of mind might reflect differences in the capacity for flexibility of attentional processes pertaining to attachment (Main, 1991, 2000). Together, all of these qualities may be implicated in the association between state of mind and these psychosocial trajectories. Future research might shed light on these mediating processes.

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Received February 13, 2003

Revision received November 18, 2003

Accepted December 31, 2003 ■

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