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Using Interviews to Assess Adult Attachment

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John Bowlby (1969/1982, 1973) provided psychology with a rich and cogent theory of personality development and interpersonal relating. From the beginning, he conceptualized attachment theory in terms of both typical and psychopathological development. Bowlby (1979) believed that attachment difficulties increase vulnerability to psychopathology and can help clinicians to identify and understand the specific kinds of psychological difficulties that arise. Bowlby (1977) contended that *internal working models* of attachment help to explain "the many forms of emotional distress and personality disturbances, including anxiety, anger, depression, and emotional detachment, to which unwilling separations and loss give rise" (p. 201). He held that childhood attachment underlies the "later capacity to make affectional bonds as well as a whole range of adult dysfunctions," including "marital problems and trouble with children, as well as ... neurotic symptoms and personality disorders" (p. 206). Thus Bowlby postulated that the effects of early attachment experiences tend to persist across the lifespan, are among the major determinants of personality organization, and have specific clinical relevance.

On the basis of Bowlby's attachment theory, Ainsworth, Blehar, Waters, and Wall (1978) identified three major styles of attachment in infancy—secure, anxious-avoidant, and anxious-ambivalent—and traced them to caregivers' parenting behavior. In Ainsworth's Strange Situation paradigm, attachment security was determined behaviorally. Babies who approached their mothers for comfort, soothing, and emotional refueling after a 3-minute separation from the mothers were deemed securely attached. Infants

who avoided their mothers, ignored them, or were difficult to console after such a separation were coded as insecurely attached. Subsequent investigators replicated and extended Ainsworth et al.'s (1978) initial findings, both in the United States and in other countries (for a review, see van IJzendoorn, 1995). Longitudinal studies investigating the predictability of later functioning and adaptation from infant attachment styles have found considerable stability of attachment classification from infancy to adulthood, although the degree of stability is dependent on intervening experiences in relationships (for reviews, see Fraley, 2002, and Grossmann, Grossmann, & Waters, 2005).

On the basis of Bowlby's contention that the attachment system is active throughout the lifespan, Mary Main began focusing on adults' *state of mind with respect to attachment* as a predictor of the adults' infants' attachment classification in the Strange Situation. In so doing, she moved the assessment of attachment from the behavioral level to what she and her colleagues (e.g., Main, Kaplan, & Cassidy, 1985) called the *level of representation,* as reflected in the Adult Attachment Interview (AAI). In this chapter, we discuss the essential elements of AAI administration and coding. We also discus the AAI's clinical utility and the challenges involved in using the AAI with a clinical population. Since the AAI was created, a number of other interviews have been developed to assess attachment security in adults. These include the Current Relationship Interview (Crowell & Owens, 1996), a modified AAI (Crittenden, 1995), and the Patient–Therapist AAI (Diamond et al., 1999). Although we briefly describe these other interviews, we focus mainly on the AAI because (1) the design and scoring of all the variants are based on the AAI, and (2) the AAI has generated the most reliability and validity data.

THE ADULT ATTACHMENT INTERVIEW

Main and her colleagues (George, Kaplan, & Main, 1984, 1985, 1996; Main et al., 1985) developed the AAI, a 1-hour attachment history interview, as a way of beginning to determine what residues of attachment-related experiences exist in parents' minds and affect the ways in which they behave with their young children. The interview asks about early attachment relationships, as well as an interviewee's sense of how these experiences affected his or her adult personality, by probing for specific memories that corroborate and/or contradict the nature of the attachment history presented by the interviewee. Noting the discourse features in the interviews, Main and colleagues identified three major patterns of adult attachment: *secure-autonomous* (F), *dismissing* (Ds), and *enmeshed/preoccupied* (E). More recently, they have added two further categories: *unresolved/disorganized* (U/d) and *cannot classify* (CC). The first three categories parallel the attachment classifications originally identified in childhood by Ainsworth et al. (1978), and the unresolved/disorganized classification parallels a pattern that Main earlier noticed in infants (Main & Weston, 1981; see also Main & Solomon, 1990). As hoped, Main found that the adult attachment patterns identified in adults reliably predict the Strange Situation behavior of their children (Main et al., 1985; for a review, see van IJzendoorn, 1995).

The AAI is a semistructured clinical-like interview designed to elicit thoughts, feelings, and memories related to early attachment experiences, and to assess an adult's state of mind with respect to attachment, or internal working model of attachment relationships. The interview consists of 18–20 questions asked in a set order with standardized probes. Interviewees are asked to describe their childhood relationships with their parents, choosing five adjectives or short phrases to describe each relationship and (later in the interview) supporting these descriptors with specific memories. To elicit attachment-related information, they are asked how their parents responded to them when they were in physical or emotional distress (e.g., during times when they were upset, injured, or ill as children). They are also asked about memories of separations, losses, experiences of rejection, and times when they might have felt threatened (including, but not limited to, times involving physical and sexual abuse). The interview requires that they reflect on their parents' styles of parenting and consider how their childhood experiences with their parents have influenced their lives. The interview technique has been described as "surprising the unconscious" (George et al., 1985), and it provides numerous opportunities for an interviewee to elaborate upon, contradict, or fail to support previous statements. Although the AAI is a semistructured interview, it yields information similar to what is obtained in a less structured clinical interview.

Coding

The AAI is transcribed verbatim and very carefully, and trained coders score the typed transcripts by using several scale ratings (Main & Goldwyn, 1984; Main, Goldwyn, & Hesse, 2003), which are then used to assign the person interviewed to one of five primary attachment classifications (secure-autonomous, dismissing, preoccupied, unresolved/disorganized, and cannot classify). The unresolved classification can be a primary or secondary designation, and a person given this designation is also assigned the one of three main organized styles that best fits the transcript (secure, dismissing, or preoccupied). Primary attachment classifications are derived from three classes of scale ratings:

1. The first class contains scales based on the rater's (i.e., coder's) *inferences* about the individual's experiences with parents during childhood (e.g., the extent to which each parent was or was not loving, rejecting, neglecting, involving, and role-reversing). It is important

to note that the AAI does not purport to assess an individual's actual experiences, but only the content and structure of the person's current representations of those experiences.

2. The second group of scales assesses the individual's style of discourse (including coherence of the transcript, idealization of parents, insistence on lack of recall, expression of anger or other strong feelings, lack of resolution of loss or trauma, and overall coherence of thought).
3. The third group contains scales that assess the individual's overall state of mind with respect to attachment (e.g., degree of derogation of attachment).

The scale ratings are usually made along a 9-point continuum, where 1 refers to absence or very low levels and 9 refers to high levels of the quality in question. Although all of the subscales are used to classify interviewees' overall state of mind with respect to attachment, research indicates that the coherence-of-the-narrative scale is the best single indicator of attachment security ($r = .96$, $p < .001$) (Waters, Treboux, Crowell, Fyffe, & Crowell, 2001).

Classification

Individuals classified as *secure-autonomous* describe the positive and negative aspects of their childhood experiences with parents in an open, coherent, and consistent manner. Their responses are typically spontaneous and fresh, and at times indicate that they are actively reflecting on their own thought processes. Security is also characterized by a well-organized, undefended discourse style in which emotions are freely expressed and by a high degree of coherence in discussing attachment relationships, regardless of how positively or negatively those relationships might have been described. (Because security, according to the scoring system, is mostly a matter of coherence, coherent discourse about negative relationship experiences is also counted toward security.) Secure individuals are collaborative during the interview process, maintain a balanced and realistic-seeming view of their early relationships, value attachment relationships, and view attachment-related experiences as highly influential in their development.

Individuals classified as *dismissing* devalue attachment relationships or portray them in an idealized fashion while being unable to provide corroborating concrete examples. As the interview proceeds, inconsistencies usually appear between vaguely positive generalizations and "leaked" concrete evidence to the contrary. In contrast with secure individuals, dismissing individuals typically exhibit discomfort with the interview, either implicitly or explicitly, often responding to the relationship questions as if they are

foreign and unexpected. They also have difficulty recalling specific events, but gradually reveal an early history of rejection; they may attempt to normalize this and to deny or minimize any untoward effects. They are judged to have low *coherence of mind* because of the vagueness and sparseness of their descriptions, as well as the inconsistency between the vaguely positive generalizations and the "leaked" concrete evidence of negative experiences.

Individuals who are classified as *preoccupied* with respect to attachment are confused and entangled with previous attachment relationships or experiences. While typically speaking about their parents and past experiences in an open, unguarded manner, they produce narratives that are unfruitful and lack objectivity. Perhaps most importantly, preoccupied individuals have a tendency toward incoherence in their accounts. Their interviews are often excessively long and characterized by the use of lengthy, grammatically entangled sentences; jargon and nonsense words; reversions to childlike speech; or confusion regarding past and present relationships—all of which convey a lack of distance or an adult perspective. They often describe early relationships with parents as overinvolved or as guilt-inducing. Descriptions of their current relationships with parents are often characterized by pervasive anger, passivity, and/or attempts to please parents. Preoccupied answers often fail to address the interviewer's original questions, as if the person is so enmeshed in past negative feelings that he or she loses track of the interviewer's needs (or existence).

Individuals classified as *unresolved/disorganized* (concerning trauma or loss) may speak largely in a coherent manner, yet make fleeting, confused statements in relation to traumatic attachment-related events. Because their interviews may have prominent features of either the secure, dismissing, or preoccupied attachment style, these interviews are given a corresponding secondary classification. The unresolved classification is assigned when an individual displays lapses in the monitoring of reasoning or discourse when discussing experiences of loss or abuse. These lapses include highly implausible statements regarding the causes and consequences of traumatic attachment-related events, loss of memory for attachment-related traumas, and confusion and silence during discussions of trauma or loss.

The fifth category, *cannot classify,* was developed because Hesse (1996) found that approximately 18–20% of people in typical community samples and 40% of clinical samples could not be classified within the four-category system. The cannot classify designation is assigned when an individual displays a combination of contradictory or incompatible attachment patterns, or when no single state of mind with respect to attachment is predominant. The person may shift attachment patterns in midinterview, display different attachment patterns when discussing different attachment figures, or exhibit a mixture of different discourse styles within the same portion of the transcript.

As with the Strange Situation coding procedure for infants, there are subclassifications within each of the major adult attachment categories. We do not attempt to delve into those details here, although it is worth noting that they may eventually prove clinically important and useful.

The AAI is generally administered by interviewers who have completed a 2-week training workshop conducted by Mary Main and Erik Hesse or by one of the trainers they have certified. However, many research teams have found that a range of individuals, from graduate students in developmental and clinical psychology to clinicians in the community, can be trained to administer the AAI (but *not* code it) by an experienced AAI interviewer, preferably one who has completed the 2-week training workshop. The AAI is administered face to face in a single session, and because the time needed to complete it varies, the interviewer needs to schedule sufficient time. We have had interviews take as little as 20 minutes and as long as 3–4 hours. The median is somewhere between 1 and 3 hours. Because the interview is lengthy and emotional, we recommend a comfortable room, complete with tissues and bottled water. The interview is audiotaped; although it can be videotaped, this makes it more difficult and expensive to transcribe, because VCR/DVD transcription machines are expensive. We recommend using a digital recorder with separate clip-on microphones to ensure the best-quality recording.

Because the AAI is designed to parallel the infant Strange Situation procedure by surprising the unconscious and activating the attachment system, and because it flows differently than a therapy session does, we recommend that therapists not administer the AAI to their own patients. When using the AAI in a clinical setting, an interviewer needs to be able to assess the interviewee's emotional state and be prepared to end the interview if clinically indicated. We should mention, however, that in conducting over 200 interviews with patients who had borderline personality disorder (BPD), we had to end an interview prematurely on only one occasion.

How Is the AAI Coded?

The AAI is transcribed verbatim according to transcription rules developed by Mary Main. It usually takes a person using a foot-pedaled transcription machine 6–12 hours to transcribe an AAI, depending on such factors as the length of the interview, clearness of the speakers, and typing speed. Once transcribed and checked for accuracy, the AAI is scored for attachment classification by coders who have been properly trained and have achieved reliability on an extensive set of training transcripts. Raters must remain unaware of each participant's identifying characteristics, including clinical status, diagnosis, and (if the AAI is being administered as part of a research project) the nature and purpose of the study and the participant's placement in the design.

Distribution of Attachment Patterns

In a meta-analytic study with a combined sample of 584 nonclinical mothers, when the three-way classification system was used, 58% of participants were classified as secure-autonomous, 24% as dismissing, and 18% as preoccupied. When the four-way system was used with 487 nonclinical mothers, 55% were classified as secure-autonomous, 16% as dismissing, 9% as preoccupied, and 19% as unresolved. In two nonclinical samples, 6.6% and 10% of participants received the cannot classify designation (Allen, Hauser, & Borman-Spurrell, 1996; Holtzworth-Monroe, Stuart, & Hutchinson, 1997).

Interrater Reliability

Studies indicate a range of interrater reliabilities from 75% to 100% agreement in overall classification (Allen et al., 1996; de Haas, Bakermans-Kranenburg, & van IJzendoorn, 1994; Levy et al., 2006; Pianta, Egeland, & Adam, 1996; Sagi, van IJzendoorn, Scharf, & Koren-Karie, 1994), and a greater range of scores across rating scales. In our own study of patients with BPD (Levy et al., 2006), raters agreed on 86% of the categorical classifications ($\kappa = .80$, $t = 6.11$, $p < .001$). The intraclass correlation for dimensional ratings of narrative coherence was .88.

Test–Retest Reliability

Much research has shown that the secure, dismissing, and preoccupied classifications are stable over long periods of time (Bakermans-Kranenburg & van IJzendoorn, 1993; Benoit & Parker, 1994; de Haas et al., 1994; Sagi et al., 1994). Bakermans-Kranenburg and van IJzendoorn (1993) found 78% stability ($\kappa = .63$) across the three organized attachment categories. Sagi et al. (1994) reported a reliability of 90% ($\kappa = .79$) over a 3-month period. Benoit and Parker (1994) found 90% three-category stability between prebirth interviews and interviews conducted when the participants' infants were 11 months old. Crowell, Waters, Treboux, and O'Connor (1996) reported a stability of 86% (three-category; $\kappa = .73$). Ammaniti, van IJzendoorn, Speranza, and Tambelli (2000), over a 4-year period, found 95% secure–insecure correspondence and 70% three-category correspondence.

Validity

The validity of the AAI has been judged primarily in terms of its ability to predict the quality of an adult's attachment relationship with his or her infant, as observed in the Strange Situation, and to predict parents' responsiveness to their infants' attachment signals. Much of this work has been done with nonclinical samples, although there is some evidence that the AAI

is predictive in clinical samples (Fonagy, Steele, Steele, Moran, & Higgitt, 1991).

Predictive Validity

van IJzendoorn (1995) conducted a meta-analytic review of studies assessing secure versus insecure parental attachment representations and the quality of infant attachment as observed in the Strange Situation, as well as observations of parents' sensitivity, warmth, structure, and supportiveness toward their infants or preschool-age children. In 18 samples (N = 854), the combined effect size for predicting infant secure versus insecure attachment was 1.06 in the expected direction. For a portion of the studies, the percentage of correspondence between parents' state of mind with respect to attachment and their infants' attachment security could be computed, and the resulting percentage was 75% (k = .49). There was a strong association between AAI and Strange Situation classifications (r = .49, biserial r = .59).

With regard to responsiveness to infants' attachment signals, a meta-analysis of 10 studies (N = 389) yielded a combined effect size of 0.72. Whereas the match between the AAI and the infants' Strange Situation classifications was somewhat lower in those studies (although still strong, d = 0.80) for fathers than for mothers, the predictability of caregiving responsiveness from the AAI was greater for fathers than for mothers. These effect sizes are considered large (Cohen, 1992). The effect size discriminating clinical from nonclinical populations (d = 1.03) was almost identical to that discriminating parents of secure infants from parents of insecure infants (d = 1.06; van IJzendoorn & Bakermans-Kranenburg, 1996).

Long-Term Continuity

Several studies have examined long-term continuity by following infants into young adulthood (Hamilton, 2000; Lewis, Feiring, & Rosenthal, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000; Weinfield, Sroufe, & Egeland, 2000; Zimmerman, Fremmer-Bombik, Spangler, & Grossmann, 1997). The results of these studies have been somewhat inconsistent, but overall they are consistent with Sroufe's concept of *lawful discontinuity* (Stroufe, 1979; Weinfield et al., 2000). Two studies found high continuity (Hamilton, 2000; Waters et al., 2000). Hamilton (2000) found a 75% correspondence for secure–insecure attachment status between infancy and late adolescence, with the strongest stability in the preoccupied group. Waters et al. (2000) followed 50 individuals for 20 years, finding 64% stability in attachment classification. Three other studies found less continuity, but have found evidence of lawful discontinuity. Weinfield et al. (2000) were able to differentiate stable from unstable groups on the basis of child maltreatment, maternal depression, and family functioning in early adolescence. Lewis et al. (2000) found that parental divorce during childhood was related to later insecure attachment. Waters et al. (2000) also found evidence of lawful discontinuity. They found greater than 70% stability for individuals with no major negative life events, and less than 50% stability for those who had lost a parent, endured parental divorce, or the like. These findings provide evidence that the stability of attachment representations over time vary as a function of family environment and difficult and chaotic life experiences.

In a meta-analytic study, Fraley (2002) tested two mathematical models of stability and change: (1) a *revisionist* model, which holds that early attachment patterns are subject to continual change on the basis of new experience; and (2) a *prototype* model, which holds that despite some capacity for change, core attachment patterns are sustained over time and continue to influence attachment behavior later in adulthood. Results indicated that the moderate stability of attachment security over the first 19 years of life is better accounted for by the prototype model.

Discriminant Validity

van IJzendoorn (1995) found that in five out of six studies, secure versus insecure adult attachment status was unrelated to intelligence, and Bakermans-Kranenburg and van IJzendoorn (1993) found that AAI classifications were independent of non-attachment-related memory. Crowell et al. (1996) studied the discriminant validity of the AAI vis-à-vis measures of intelligence, social desirability, discourse style, and general social adjustment in a sample of 53 married women with preschool children. There was no relation between AAI classifications and discourse style or social desirability, but there were modest but significant correlations with IQ scores and social adjustment. With regard to dismissing attachment, Bakermans-Kranenburg and van IJzendoorn (1993) found the AAI to be unrelated to social desirability. In general, then, the AAI appears to be an attachment-related measure rather than a measure of some other, more general trait.

INCORPORATING THE AAI INTO CLINICAL PRACTICE

There are at least two ways that the AAI might be incorporated into clinical practice. First, it can be administered before beginning therapy or during the evaluation process to provide clinically relevant data; it can also be administered periodically to assess change in the coherence of a client's narrative and improvement on some of the attachment coding scales. This first kind of assessment would probably take place outside the therapy hour, and, as mentioned earlier, it would be best in this case for the AAI to be administered by someone other than the therapist. However, for most clinicians it may be difficult to use the AAI for formal assessments of attachment state

of mind. Thus it is worthwhile to consider a second manner in which the AAI can be used in clinical practice—employing the central constructs and principles in the AAI to understand and guide clinical work.

Once the AAI coding system is learned, a clinician can listen to clinical process with attachment organization in mind (Slade, 1999). For example, when a patient is describing relationships with important attachment figures, a clinician can listen for cues that may suggest the individual's state of mind with respect to attachment.

Using the AAI in Clinical Diagnosis

The AAI was not designed as a clinical diagnostic tool and should not be used as a substitute for diagnosis, particularly a formal psychiatric diagnostic-and-statistical-manual-based diagnosis. However, it provides useful clinical information about the way in which an individual organizes his or her thought processes and copes with stress, and it may aid in distinguishing subtypes within particular diagnostic classifications (e.g., Levy & Blatt, 1999).

As mentioned earlier, the AAI was intended to "surprise the unconscious" and to serve as an adult version of the Strange Situation procedure by activating an individual's attachment system. The interview achieves these goals through presenting questions that catch the interviewee off guard by directing attention to images, memories, and representations of childhood attachment experiences, and it calls upon the person to evaluate these emotion-laden experiences while maintaining appropriate interview discourse and reasoning. The interviewee has to integrate challenging thoughts and feelings in a way that allows the interviewer to observe and evaluate the person's self-regulatory abilities. In this way, the AAI is similar to Kernberg's (1984) structural interview, which assesses the degree of differentiation and integration of representations of self and others to determine a person's personality organization, although the AAI is much more structured. It is interesting to note that object relations theorists like Kernberg and Blatt, and developmental psychologists like Main, independently developed assessment procedures to examine the organization of mental representations revealed in discourse; they also invented similar questions and coding schemes (although Kernberg's procedure was meant to be used clinically, whereas Blatt and Main developed their respective systems for research purposes).

There are few data regarding the potential diagnostic value of the AAI for relating a particular disorder or groups of disorders to specific attachment patterns. For example, unresolved attachment has been related to a host of different psychopathological outcomes, including substance abuse (Riggs & Jacobvitz, 2002), BPD (Barone, 2003; Fonagy et al., 1996; Levy et al., 2006; Patrick, Hobson, Castle, & Howard, 1994), psychiatric hospitalization (Adam, Sheldon-Keller, & West, 1996; Allen et al., 1996; van IJzendoorn & Bakermans-Kranenburg, 1996), suicidal ideation (Allen et al., 1996; Riggs & Jacobvitz, 2002), posttraumatic stress disorder (PTSD) (Stovall-McClough & Cloitre, 2006), and dissociation (Carlson, 1998).

AAI States of Mind as Predictors of Treatment Use and Response

The AAI may be useful for understanding important aspects of psychotherapy, particularly the therapeutic relationship, transference–countertransference dynamics, and psychotherapy dropout.

The AAI and Treatment Use

A number of studies have related AAI states of mind to treatment use (Dozier, 1990; Korfmacher, Adam, Ogawa, & Egeland, 1997; Riggs & Jacobvitz, 2002). Not surprisingly, those with secure states of mind have proven to be more collaborative, more receptive, and better able to utilize treatment. In contrast, those with dismissing states of mind have been found to be less engaged in treatment. Those with preoccupied states of mind have presented as more needy, but have not necessarily been compliant with treatment.

Dozier (1990) found that dismissing patients were often resistant to treatment, had difficulty asking for help, and retreated from help when it was offered. Riggs and Jacobvitz (2002) found that dismissing adults were less likely to report having ever been in therapy than those who were secure, preoccupied, or unresolved with respect to attachment. Interestingly, secure adults reported the highest rates of couple therapy. Korfmacher et al. (1997), in a study of treatment use among pregnant mothers receiving home visitation services, found that those with secure states of mind were rated as more collaborative in the treatment process than those who were less secure-autonomous. Clients who were more dismissing were rated as rejecting treatment. This can be understood by noticing that a person seems to act toward therapists as he or she acts toward AAI interviewers.

Using the AAI as a Guide to Therapeutic Interventions

Treating People Who Have Secure-Autonomous States of Mind

Given that secure individuals are more open to exploring their surroundings and relationships, it is not surprising that they tend to be open, engaged, collaborative, compliant, committed, and proactive in treatment (Dozier, 1990; Korfmacher et al., 1997; Riggs & Jacobvitz, 2002). Although they may enter treatment distressed, they tend to be trusting of therapists and, most importantly, able to integrate what their therapists say and suggest. In addition, anecdotal evidence suggests that they tend to be more able to show gratitude toward their therapists for providing treatment.

Treating People Who Have Preoccupied States of Mind

Because preoccupied individuals can be so interpersonally engaged, initially they may appear to be easier to treat. They are often so distressed and interpersonally oriented that they are eager to discuss their worries and both past and current relationship difficulties (Dozier, 1990). However, both clinical and empirical evidence suggests that they may nevertheless be extremely difficult to treat. Because their chaotic and contradictory representations of self and others are so rich, they may be fairly readily "mentalized" by therapists (Allen & Fonagy, 2006). However, they often leave their therapists feeling confused and overwhelmed. In a number of publications, Slade (1999, 2000, 2004) has written about the unique challenges faced by clinicians working with preoccupied clients. She warns that "Progress is ... hard-won" (Slade, 1999, p. 588), and that therapists must be prepared for the "slow creation of structures for the modulation of affect" (Slade, 1999, p. 586). She contends that change occurs because of a therapist's long-term "emotional availability and tolerance for fragmentation and chaos" (Slade, 1999, p. 588). Consistent with these ideas, Dozier (1990) found that inpatient clients with preoccupied attachment patterns tended to present themselves as needy, but were not more compliant with treatment plans than dismissing individuals. In addition, Fonagy et al. (1996) found that preoccupied clients, compared with those classified as dismissing, were less likely to show improvement. The preoccupied patients may have been more difficult to treat because their representational systems were intricately linked with emotions that were intense and well elaborated by entrenched rumination on the difficult events in their lives.

In our own work with preoccupied individuals, we have encountered a number of difficulties that could have been identified in their AAI narratives. These have included: (1) rigid mental states, (2) rapid vacillations or oscillations between contradictory mental states, (3) current anger and confusion, and (4) self-blame and self-derogation.

The following vignette illustrates these issues. The patient was an unmarried 35-year-old woman of Southeast Asian descent who, despite being very attractive, highly intelligent, and educated at an Ivy League college, found herself unemployable and unable to date—mainly because, despite being emotionally needy, she could not get along with others and frequently engaged in angry outbursts. At 35, she was highly dependent on her parents (particularly for financial support, but also for emotional support). Her parents were at their wits' end and perceived her as wasting her life away. Although they were very traditional and perceived psychotherapy as a corrupt endeavor practiced by charlatans, they were willing to pay for therapy. The patient's relationship with her parents was anchored at two equally uncomfortable extremes, so she vacillated between wanting to live at home and wanting to break away and become independent and self-reliant. At times, she would plead with the therapist in a loud, pressured voice, "Dr. X, Dr. X, please, please tell me what to do! Should I try to work it out with my parents, or should I just forget about them?" She rapidly flipped between desperately wanting to be close to her parents and wanting to have nothing to do with them. In each of these stances she was adamant and inflexible about her position, despite frequently flipping back and forth. When she was in one mental state, she did not appear to recall being in the other. However, when she asked the therapist to make a decision for her, both mental states were briefly represented at the same time.

Any hesitation on the therapist's part was interpreted as withholding valuable information and was met with anger. The therapist felt backed into a corner with no good solution, but he wanted to make use of these moments when both options were mentally available. He pointed out that if he told her to reconcile with her parents, he imagined that she might see that as a criticism of her: They were right, she was wrong, and she should submit to their will. On the other hand, if he told her to resist them and leave, she would feel as if the therapy was pointless, and she would feel abandoned by her parents and more dependent on the therapist. When both of the affective states were acknowledged and tolerated by the therapist, the patient was able to refrain from her rapid oscillations long enough to have a productive discussion and develop a more integrated perspective on her and her parents' situation.

In work with patients classified as preoccupied, it is important to set and maintain a structured frame. Doing so may help keep the therapist from becoming overly entangled with the patients, particularly the ones who can be diagnosed as having BPD. In addition, a high degree of structure and predictability may provide the containment necessary to hold preoccupied individuals in treatment.

Treating People Who Have Dismissing States of Mind

As noted earlier, Dozier (1990) found that dismissing patients were often resistant to treatment, had trouble asking for help, and retreated from help when it was offered. Consistent with Dozier's findings, Diamond and colleagues (Diamond, Clarkin, et al., 2003; Diamond, Stovall-McClough, Clarkin, & Levy, 2003) find that dismissing patients often evoke countertransference feelings of being excluded from the patients' lives. In our own study, a patient classified as dismissing came into a session one morning and announced, to her therapist's surprise, that she was getting married that afternoon. Although the therapist had known of her engagement, it had been many months since she had brought up any aspect of her upcoming marriage. In addition, dismissing individuals often become more distressed and confused when confronted with emotional issues in therapy (Dozier, Lomax, Tyrrell, & Lee, 2001). Another dismissing patient, when reflecting on her experience in therapy, stated:

"He [the therapist] would start digging into things and find out why I was angry, and then I would realize that something really made me mad, but I didn't want to be mad. With my parents, for example, I didn't want to be angry at them."

Finally, a therapist working with a dismissing patient may be pulled into an enactment analogous to the "chase and dodge" sequence with mothers and infants identified by Beebe and Lachmann (1988), which leaves the patient feeling intruded upon only to withdraw further. Conversely, a patient with a dismissing state of mind may curtail the therapist's ability to engage with, visualize, or evoke the individual's representational world, or identify with the patient.

Treating People Who Have Unresolved States of Mind

In our experience, unresolved individuals with BPD are also very difficult to treat. In two studies, we found that between 32% and 60% of patients with BPD were classified as unresolved (Diamond, Stovall-McClough, et al., 2003; Levy et al., 2006). In our randomized clinical trial (Levy et al., 2006), we found a nonsignificant decrease from pre- to posttreatment in the number of patients with BPD classified as unresolved (32% vs. 22%). We also have some unpublished data suggesting that those patients with BPD who were unresolved were more likely to drop out of treatment. However, in a small sample of women with PTSD related to childhood sexual and physical abuse, Stovall-McClough and Cloitre (2003) found that 62% of unresolved patients lost their unresolved status following treatment. This effect was more prominent in the group receiving exposure plus affect regulation skills than in the group receiving affect regulation skills only. Interestingly, in this sample, unresolved attachment was more robustly related to BPD symptoms (Stovall-McClough & Cloitre, 2003) and PTSD avoidant symptoms than to dissociative symptoms (Stovall-McClough & Cloitre, 2006). The difference in outcome was probably related to differences in the severity of the disorders characterizing the two samples of patients. Ours were all diagnosed with BPD, and only 5% were classified as securely attached. In the Stovall-McClough and Cloitre (2006) study, patients were suffering from PTSD (although some had BPD symptoms), and 50% were securely attached. Many of their unresolved patients were securely attached, whereas all of our unresolved patients were insecurely attached. Thus unresolved attachment in the context of secure attachment may be a positive predictor of favorable change.

Dropping Out of Therapy

Patients with different attachment patterns may be differentially at risk for dropping out of psychotherapy, may differentially drop out of specific treatments, or may be at risk of dropping out for different reasons. For example, individuals with a dismissing state of mind may be at risk for dropping out of treatment because they are not fully committed to, attached to, or engaged with the therapist and/or the treatment (Dozier, 1990). In addition, they may be at risk for leaving treatment because they find that psychotherapy emotionally unravels them. In contrast, preoccupied states of mind may leave patients at risk of dropping out after what they perceive to be an abandonment experience, such as an emergency cancellation, a scheduled vacation, or a long wait for a phone call to be returned. Patients who fit the *fearfully preoccupied* subclassification (called E3, but not explicitly discussed here), which has been related to high rates of dropout (Fonagy et al., 1995), may be prone to drop out in response to feeling overly connected, attached, or dependent on the therapist and treatment.

Although the dynamics we have discussed here are familiar to clinicians who treat patients with BPD, our hypotheses are speculative regarding the relationship of these dynamics to specific attachment patterns. Further research is needed to delineate the prognostic and prescriptive significance of attachment patterns for treating patients.

THE AAI AND THERAPEUTIC OUTCOME

The AAI has been useful for assessing clinical outcome in treatment (Fonagy et al., 1996; Diamond, Stovall-McClough, et al., 2003; Levy, Diamond, Yeomans, Clarkin, & Kernberg, 2007; Levy et al., 2006; Stovall-McClough & Cloitre, 2003). However, it is important to administer the AAI prior to treatment in order to have a baseline for comparison. Furthermore, the trained raters coding the interviews should be kept unaware of initial classifications and rating scores, as well as clinical status and diagnoses.

The first large-scale treatment study involving the AAI was conducted by Fonagy et al. (1996). They examined the relation between patterns of attachment and psychiatric status in 82 nonpsychotic inpatients (treated at Cassel Hospital in west London with psychoanalytically oriented therapy) and 85 case-matched controls. They found that individuals classified as dismissing on the AAI were more likely to display clinically significant improvements (93%) on the Global Assessment of Functioning scale. Forty-three percent of the preoccupied and 33% of the secure subjects, respectively, showed significant clinical improvement. This surprising result deserves replication and further explication.

In a book chapter, Fonagy et al. (1995) reported partial findings from a subset of 35 of the 82 inpatients in the Cassel Hospital inpatient study. All 35 inpatients were classified as insecure during their initial interview. However, 14 (40%) of the 35 inpatients were assigned a secure classification upon discharge. This increase in the proportion of secure classifications was

highly significant ($p < .001$). On the individual scale ratings, bland or idealized pictures of parents and a pattern of pervasive memory blockages were more characteristic of the AAIs at intake than at discharge, and they appear to have been changed by treatment. These findings are important, because they show that attachment patterns can change as a function of treatment. However, neither the specific psychopathology nor the treatment was well specified. In addition, no more detailed description of the changes in AAI status observed in this study has been published, making reports of these findings difficult to interpret.

In our own work at the Personality Disorders Institute at Cornell University, changes in attachment organization and *reflective function* (RF; i.e., the ability to mentalize; for a review, see Jurist & Meehan, Chapter 4, this volume) were assessed as putative mechanisms of change in one of three year-long psychotherapy treatments for patients with BPD. In pilot work (Diamond, Stovall-McClough, et al., 2003; Levy et al., 2007), we used the AAI to examine changes in attachment and RF in 10 patients treated in a year-long modified psychodynamic treatment called transference-focused psychotherapy (TFP). We were able to show changes in both attachment and RF. Of the 9 (90%) insecure patients, 2 became secure (22%), which resulted in 33% of the patients with BPD being classified as secure. Of the 6 unresolved patients (60%), 4 (67%) lost their unresolved status, resulting in only 40% of the sample being classified as unresolved after a year of treatment. We were also able to show significant increases in coherence and RF at the end of treatment (Levy et al., 2007).

In a randomized controlled trial (Levy et al., 2006), 90 reliably diagnosed patients with BPD were randomly assigned to TFP, an integrative cognitive-behavioral therapy called dialectical behavior therapy, or a modified psychodynamic supportive psychotherapy. Attachment organization was assessed with the AAI and the RF Scale (see "Mentalization and RF," below). After 12 months of treatment, there was a significant increase in the number of patients classified as secure in the group receiving TFP, but not in the other two treatment groups. Significant changes in narrative coherence and RF were found as a function of treatment, with the patients receiving TFP showing increases in both constructs during the course of treatment.

As mentioned previously, Stovall-McClough and Cloitre (2003) found that 8 of 13 (62%) patients with PTSD lost their unresolved classification during the course of treatment. They also found that the posttreatment unresolved scores were significantly lower for those who received prolonged exposure than for those who received skills training in affect and interpersonal regulation (2.8 vs. 5.4).

PROBLEMS WITH USING THE AAI IN CLINICAL SAMPLES

The AAI is a complicated measure whose reliable administration and coding require extensive and rigorous training. Its complexity is amplified for the interviewer and coder when clinical populations are examined, particularly with clients who have serious personality problems or violent and traumatic backgrounds. Having administered and coded AAIs in both normative and clinical samples, we have encountered a number of problems that tend to differentiate clinical from nonclinical interviews.

Eliciting a Clear Attachment Biography

Eliciting a clear attachment biography at the start of the interview can be difficult with clinical interviewees for two reasons. Many clinical interviewees have had multiple transient caregivers, making it difficult to identify key attachment figures. Patients may have resided in multiple institutions or foster homes. Many patients may have had strong attachments to a grandparent, an older sibling, or an aunt or uncle who allowed a less malevolent relationship to develop. We have also found that some patients insist that a friend's parent was an attachment figure to them. Some interviewers will deal with these problems by erring on the side of inclusiveness, but it is important not to inquire about too many attachment figures, because it dilutes the intensity of the interview and tires both the interviewer and the interviewee. Conversely, it is important to avoid omitting an important attachment figure (which happens more often than one would think, despite the interviewer's best intentions).

We have found it useful to inquire about the time frame in which the care was provided, as well as the kind of care provided and whether the person is still in contact with the care provider. Often grandparents, aunts, and uncles were not seen very frequently or for extended periods of time. Likewise, grandparents, aunts/uncles, siblings, and friends' parents were usually not involved in an interviewee's direct and intimate care. Finally, clients often have not been in contact for years with individuals when they present as important attachment figures. Any one or two of these heuristics used in isolation may not be sufficient in making a determination, but they can be valuable in narrowing the scope of an interview with a person who has had a chaotic life with multiple caregivers.

The second issue that interferes with producing a clear attachment biography is the presence of unintegrated and/or rigid representations and mental states. Such mental states can prevent clinical interviewees from adhering to the structure of the AAI, and as a result can make coding difficult. Compounding the problem is the fact that many clinical interviewees have had multiple therapies, and to the extent that the AAI feels like a typical therapy session, many clinical interviewees have a hard time responding to the somewhat different structure of the AAI. For example, we have found that many patients, particularly those with trauma histories, have difficulty answering the opening question. After a brief introduction, the AAI begins by asking the interviewee to give an overview of his or her *early* family situation. The goal is to get a sense of the family's structure, but many patients launch directly into their relationship with their parents, including details

about abuses, mistreatment, and grievances they have against one or both parents. Although this is useful information about lack of coherence and/or lack of resolution, it is extremely important to redirect the interviewee. Otherwise, the interviewer is licensing the interviewee to violate the structure of the interview, which may seriously dilute the information needed for coding.

Similar difficulties arise in answers to the second question of the AAI ("I'd like you to try and describe your relationship with your parents as a young child. If you could start from as far back as you can remember ... "), which is meant as a lead-in or warm-up for asking about the five adjectives. Answers should be brief, but a less coherent interviewee may spend 20 minutes chronicling, for example, an extensive abuse history that pulls the interviewer into deviating from the interview's structure. In such a situation, it is useful to politely acknowledge the importance of the material, inform the interviewee that there will be an opportunity to discuss these events in more detail later in the interview, and then guide him or her to the next question.

Identifying Attachment Figures for Whom Resolution of Loss Should Be Probed

Another difficulty with clinical samples is deciding which losses should be probed for level of resolution. The coding of unresolved/disorganized attachment is of particular importance with clinical interviewees (who are likely to have suffered separations, losses, and abuse), so determining which losses to probe is critical. The AAI protocol dictates that interviewees be questioned about any significant figure who has died. However, just as it can be difficult to determine who is actually an attachment figure, it can be difficult to determine what counts as a significant loss, in part because some clients have experienced so many losses and appear to have the same intensity of affect attached to each one. Moreover, questioning about loss or trauma may have to be interrupted if the interviewee becomes too distressed. Finally, some interviewees have experienced traumatic loss of a parent through abandonment rather than death. Adam et al. (1996) suggest that severe or traumatic separation experiences may result in unresolved attachment.

Managing Extreme Violations of Discourse and Monitoring

We have found that some patients with BPD vacillate so quickly between contradictory and conflicting mental states that making sense of the narrative feels impossible. It is important to make sure that the interviewee understands the question and to clarify what the interviewee is saying, rather than making assumptions about inconsistent responses. On the other hand, the interviewer needs to guard against filling in content that a patient may

acquiesce to, or providing structure and elaboration that may interfere with accurate assessment of coherence. In contrast, some patients are so terse or vague that it is difficult to elicit usable information. The interviewer needs to be skillful in finding the optimal level of probing.

Problems Related to Medication, Nonprescription Drug Use, and Neuropsychological or Cognitive Impairment

Certain clinical problems or somatic treatments for these problems may affect thinking and thought content. Most notably, disorders such as schizophrenia, particularly if a patient is floridly psychotic, may seriously interfere with the ability to carry out and code the AAI. Likewise, some patients may show up for the interview "high," intoxicated, or overmedicated. We have found that occasionally a nonpsychotic patient will arrive and appear overmedicated or "out of it," but during the course of the interview, the person perks up. Likewise, we have seen patients who arrive appearing fine but then become "out of it" after being asked certain questions or getting angry at the interviewer. In both cases, it is important to employ clinical skill in order to continue the interview.

Other Difficulties

We hope that this discussion of problems conveys some of the difficulties of using the AAI with clinical populations. Rather than go into the remaining problems in detail, we will count on clinician-readers' own experiences to flesh out these problems, which we simply list here:

1. Some clients or patients may have been in therapy so long or so many times that they have developed a rehearsed telling of their life stories. In these cases, the AAI may not "surprise the unconscious," and the narrative may appear coherent.
2. During the interview, some patients may behave in an erratic/chaotic manner (e.g., running out of the interview without warning), an aggressive fashion (e.g., screaming at or threatening the interviewer), or a controlling manner (e.g., trying to control the discourse, not answering questions, asking irrelevant questions, or asking that the recording be stopped). The trained clinical interviewer needs to be ready to deal with such developments.
3. Some interviews exhibit what we call *pseudosecurity* (Levy, 2005); that is, the patient's narrative appears coherent (e.g., has clear supporting examples, is free of derogations, and lacks preoccupied anger), but is marked by descriptions of insecure behavior in response to attachment figures (e.g., self-injury following a recent interaction with a parent) and/or by a lack of the forgiveness, collaboration, and valuing of attachment shown by those

with secure states of mind. Coders need to be especially attentive because these indications can be subtle.

4. Because the AAI coding system was developed for typical community samples of adults living in the United States, difficulties may arise when it is used with clinical samples and/or samples in other cultures. The AAI has been successfully used in Canada (e.g., Atkinson et al., 2005), England (e.g., Fonagy et al., 1996), Mexico (Gojman de Millán & Millán, 2004), Israel (e.g., Sagi et al., 1994), Italy (e.g., Barone, 2003), Germany (e.g., Scheidt et al., 2000), the Netherlands (Bakermans-Kranenburg & van IJzendoorn, 1993), Spain (e.g., Fava, Simonelli, & Petena, 2000), and Japan (e.g., Onishi & Gjerde, 2002).

Although the prevalence of particular attachment patterns has differed somewhat across cultures, the general consensus regarding the cross-cultural validity of attachment is that it is universal but context-dependent (van IJzendoorn & Sagi, 1999). That is, although the premises of attachment theory appear universally valid, the AAI or aspects of its coding system may not be valid in every culture or may require modifications. For example, one indicator of preoccupied attachment is a high score on the *current anger* scale. Current anger is scored when a speaker fails to maintain past tense when discussing past grievances with parents. However, in some languages, such as Chinese, there is no conjugation of verbs or specific grammar that differentiates between past and present tense. Instead, past and present are distinguished by contextual indicators; therefore, someone coding Chinese transcripts will have to be sensitive to this issue. To take another example, Onishi and Gjerde (2002) noted that modified, translated Japanese AAIs used in pilot studies showed that many Japanese phrases, when directly translated from the English-language AAI, did not accurately convey the intended meaning of the original questions. In addition, they noted that evidence of collaboration with the interviewer may be manifested differently in Japanese culture. Truthfulness is sometimes indicated in Japanese by prolonged silence, which in the United States is often interpreted as defensive (editing of thought processes) or as indicating a lapse in discourse monitoring.

OTHER ATTACHMENT INTERVIEWS AND CODING SCHEMES

Since the AAI was developed in the 1980s, several adaptations, additional coding schemes, and interviews have been developed from it or modeled on it. Here, we cannot go into all of these modifications and adaptations in detail, but we list them in case they are of special interest to some clinician-readers. For example, two common modifications of the AAI involve either asking about the interviewee's relationship or imagined relationship with his or her own children, or asking about the interviewee's current romantic relationship (Gjerde, Miyoko, & Carlson, 2004).

The Adult Attachment *Q*-Sort

The Adult Attachment *Q*-Sort (Kobak,1993), a 100-item *Q*-sort scoring system for the AAI, identifies the three organized attachment categories: secure, preoccupied, and dismissing. Raters score transcripts along two dimensions: security versus anxiety and deactivation versus hyperactivation. Hyperactivating emotional strategies are typical of preoccupied individuals, whereas deactivitating strategies are typical of dismissing individuals. Scores are compared to a criterion or "ideal" prototype sort created by attachment experts to represent each of the three organized attachment categories. Two raters (one of whom should be trained in the AAI scoring system) independently read and sort the interview data. A third rater is used if adequate agreement is not achieved. Research has found overlap between the *Q*-sort system and the standard AAI scoring system ranging from 71% to 79% (Borman-Spurrell, Allen, Hauser, Carter, & Cole-Detke, 1998; Kobak, Cole, Ferenz-Gillies, & Fleming, 1993). A number of important studies have employed the *Q*-sort system, producing interesting and replicable findings.

Mentalization and RF

Peter Fonagy, drawing on the work of philosophers like Dennett and Brentano, has articulated a theory of mind based on what he calls *mentalization:* a person's ability to reflect on what is going on in his or her own mind and accurately understand wishes, intentions, and motivations underlying the person's own behavior and that of others. Fonagy proposed that good RF should relate to a range of positive outcomes, from successful parenting to satisfying relationship functioning and resilience in the face of stressors. In order to test his theory, he developed a scale to assess various aspects of RF (e.g., understanding a developmental perspective, understanding the opaqueness of mental states, and the possible defensive nature of mental states). Consistent with his theory, Fonagy et al. (1991) found that caregiver RF predicted a baby's functioning in a laboratory testing procedure. In a later study, Fonagy et al. (1996) found that high RF acted as a buffer against the negative effects of traumatic experiences.

To evaluate the quality of mentalization, Fonagy, Target, Steele, & Steele (1998) created the RF Scale, which ranges from –1 (negative RF, in which interviews are totally barren of mentalization or grossly distorting of the mental states of others) to 9 (exceptional RF, in which interviews show unusually complex, elaborate, or original reasoning about mental states). The midpoint of the scale is 5, ordinary RF, which indicates that an individual possesses a model of others' minds that is fairly coherent, if somewhat one-dimensional, naïve, or simplistic. Initial research utilizing the RF Scale has been promising. In a study examining the role of the parents' mentalizing skills and the relation of these skills to their infant's attachment pattern, Fonagy et al. (1995) found that RF mediated the relationship

between parental attachment security and infant attachment security in the Strange Situation (Ainsworth et al., 1978) at 12 and 18 months. That is, insecurely attached parents with high RF were more likely to have securely attached babies than were insecurely attached parents with low RF. Consistent with this finding, Slade and colleagues (Grienenberger, Kelly, & Slade, 2005) have recently found that a mother's RF mediates the relationship between atypical maternal behaviors (e.g., affective communication errors, role/boundary confusion, intrusiveness) and an infant's attachment security. Levy et al. (2005) found that RF was related to a number of neurocognitive mechanisms, including attentional capacities, executive functioning, and impulsivity. These capacities are central to the difficulties experienced by people with personality disorders. Subsequent clinical research has found that RF can improve during the course of psychotherapy, even for severely disturbed outpatients with personality disorders (Levy et al., 2006).

Hostile-Helpless Coding of the AAI

Lyons-Ruth, Yellin, Melnick, and Atwood (2003) developed a coding system to assess *hostile-helpless* states of mind. This coding system builds on the existing AAI coding system with additional codes to capture punitive, compulsive caregiving, or other highly defended states of mind associated with BPD psychopathology and with exposure to trauma, abuse, or hostile or violent family relationships. Recent research has shown that the additional codes do not overlap substantially with the unresolved/disorganized, cannot classify, or fearfully preoccupied by traumatic events (E3) categories and are associated with infant disorganization and maternal disrupted communication with the infant at 18 months of age. In a second study (Lyons-Ruth, Melnick, Patrick, & Hobson, 2007), patients with BPD were compared to dysthymic patients in regard to hostile-helpless states of mind. All of the women with BPD, compared with half of the group with dysthymia, displayed such states of mind. In addition, the women with BPD showed a higher frequency of globally devaluing representations, and there was a strong trend for more of this group to show identification with devalued hostile caregivers (58% with BPD vs. 18% with dysthymia). An additional significant finding was that 75% of the women with BPD, but only 27% of those with dysthymia, made reference to controlling behavior toward attachment figures in childhood—a pattern of behavior that had previously been linked with disorganized attachment (Main et al., 1985).

Other AAI-Based Interviews

Several other interviews are mentioned only very briefly, along with key references, so that readers can find these instruments on their own. The Family and Peer Attachment Interview (FPAI; Bartholomew & Horowitz, 1991) is a semistructured interview designed to assess adult attachment styles on the basis of information about parents and peers. The FPAI rates people on four attachment styles (secure, fearful, preoccupied, and dismissing) described by Bartholomew (1990), rather than categorizing them into one of the five AAI categories. The FPAI provides a bridge between the literatures based on interview and self-report measures of attachment patterns in close relationships (see Fraley & Phillips, Chapter 7, this volume).

Crittenden (1995) modified the AAI to permit analysis of a wide range of distortions in information processing. This modification was based on her "dynamic-maturation perspective" on attachment, which stresses that maturation and experience enable children to construct increasingly sophisticated attachment strategies. Crittenden (1997) compared 62 (40 normative and 22 clinical) individuals coded with the original AAI system and with her dynamic-maturation system. The two systems provided somewhat different results, motivating Crittenden to develop her own coding scheme. It is too early to tell from published sources how valuable this scoring system will be, but Crittenden and her colleagues, many of whom are Europeans, have raised a number of important issues and have begun to publish their research (e.g., Crittenden & Claussen, 2000).

The Current Relationship Interview (CRI; Crowell & Owens, 1996) was developed to assess representations of attachment in a current romantic or marital relationship. As in the AAI, the interviewee is asked for adjectives describing his or her relationship and for examples that support those choices of descriptors; about such experiences as being upset, ill, or hurt; and about separations. In addition, the interviewee is asked about influences on the relationship and the effects of the relationship on his or her development. Preliminary research using the CRI was discussed by Crowell, Fraley, and Shaver (1999) in their chapter on attachment measures, and subsequent publications by Crowell and her colleagues have provided additional information (e.g., Crowell et al., 2002). A related instrument is the Marital Attachment Interview (Dickstein, Seifer, St. Andre, & Schiller, 2001).

The Patient–Therapist AAI (PT-AAI; Diamond et al., 1999) was designed by Diana Diamond and her colleagues to investigate patients' and therapists' states of mind with respect to attachment in the therapeutic relationship. The PT-AAI follows the same format and order of questions as does the AAI, with minor changes in the wording of questions to fit the context of the patient–therapist relationship. It includes some additional questions designed to explore patients' and therapists' experiences and representations of the therapeutic relationship. As is done for the primary attachment relationship(s) in the AAI, the interviewee is asked in the PT-AAI to describe the therapeutic relationship generally, to give five words to describe the therapist or patient (i.e., the partner in the relationship), and to support these descriptors with specific examples or incidents. The interview also includes questions about the individual's response to separations from the therapeutic partner; about what he or she does when upset, hurt, or ill

in the course of therapy; and about times when the individual felt rejected or threatened by the patient or therapist in the course of treatment. In addition, speakers are asked why they think the therapeutic partner acted the way he or she did in the course of treatment, and how they would describe and evaluate the effects of psychotherapy. The PT-AAI can be scored not only for attachment classification, but also for RF with the RF Scale (Fonagy et al., 1998).

The PT-AAI has proven difficult to use in research, because it is difficult to administer to patients and therapists prior to treatment, and therefore difficult to compare baseline scores with later scores. Diamond et al. (1999) reported results for two clients with BPD treated with Kernberg's TFP procedure (Clarkin, Yeomans, & Kernberg, 1999) by the same therapist. Both clients progressed from insecure to secure states of mind within 1 year of treatment; however, consistent with previous research (Eames & Roth, 2000; Dolan, Arnkoff, & Glass, 1993; Dozier, Cue, & Barnett, 1994; Mallinckrodt, Gantt, & Coble, 1995; Tyrrell, Dozier, Teague, & Fallot, 1999), each patient interacted with and affected the therapist in very different ways, and the therapist responded to each patient very differently. The therapist was engaged and active in the treatment of the client initially classified as preoccupied, whereas the same therapist was much less engaged, often felt dismissed, and developed a much weaker therapeutic bond with the dismissing client. The therapist's RF was higher with the patient he was more engaged with, and much lower with the patient he was less engaged with. Both patients entered treatment with equally low RF, and the patient with whom the therapist was more engaged was actually more mentally disturbed by objective standards.

Later, Diamond, Stovall-McClough, et al. (2003) reported findings on a sample of 10 patients. Patients were assessed at 4 months into treatment with the AAI, and after 1 year of treatment with the AAI and the PT-AAI, administered to both the patients and the therapists. Each of these interviews was coded for RF. The PT-AAI ratings of the 10 patients at 1 year varied considerably. In all but one case, the patient's attachment state of mind with respect to the therapist on the PT-AAI was concordant with one or more aspects of the attachment state of mind on the AAI at time 1 and/or time 2. For example, if the patient displayed a secure, dismissing, or preoccupied attachment state of mind (or some admixture of these) with respect to childhood relationships in the AAI, she was likely to receive the parallel attachment classification(s) with respect to the therapist on the PT-AAI. These findings suggest that the PT-AAI in combination with the AAI, administered over the course of therapy, may be useful in tracking aspects of the transference as it unfolds over time, and particularly in identifying which aspects of the early relationship with the parents are recapitulated with the therapist after 1 year of therapy.

Diamond, Stovall-McClough, et al. (2003) also found that over the course of psychotherapy, a number of patients were classified as secure with

respect to attachment to their therapists, but they continued to report (albeit coherently) engaging in self-destructive behaviors, keeping secrets from their therapists, and experiencing intense fears of abandonment by their therapists. These patients were able to describe coherently their apprehension in telling their therapists about their thoughts and feelings, or withholding information from their therapists. Clearly, they were not behaving or feeling like securely attached individuals. Nevertheless, they were clearly more coherent with respect to attachment representations, which might result eventually in better integration of experience, increased flexibility of thought processes, and better self-regulation. It might put them on the road to more secure behavior.

CONCLUSIONS

The ability to integrate the assessment of attachment processes into the clinical situation requires a thorough understanding of attachment theory and research. This can be accomplished by becoming familiar with the procedures and scoring approaches used in the AAI. (There are also several useful volumes that outline the development of attachment theory and research in a broad and comprehensive way, as well as a number of review articles that outline basic findings and methods of attachment research.) The AAI is an extremely rich and clinically relevant measure that generates narratives very similar to the narratives commonly told in psychotherapy. Despite the benefits of the AAI, it requires rigorous and time-consuming training, and its use requires energy and time. It may be possible, over time, to reduce the complexity of attachment interviews and the systems used to score them. In the meantime, the insights already obtained from attachment interview studies can prove extremely useful to therapists.

RECOMMENDATIONS FOR FURTHER READING

Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self.* New York: Other Press.—This book provides the most recent and thorough description of the development of mentalization.

Hesse, E. (2008). The Adult Attachment Interview: Protocol, method of analysis, and empirical studies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 575–594). New York: Guilford Press.—This chapter provides a comprehensive review of the AAI and its related research findings.

Levy, K. N. (2005). The implications of attachment theory and research for understanding borderline personality disorder. *Development and Psychopathology, 17,* 959–986.—This article reviews a number of important issues regarding attachment theory and research in clinical populations.

Levy, K. N., Kelly, K. M., Meehan, K. B., Reynoso, J. S., Clarkin, J. F., Lenzenweger, M. F., et al. (2006). Change in attachment patterns and reflective function in the treatment of borderline personality disorder with transference focused psychotherapy. *Journal of Consulting and Clinical Psychology, 74,* 1027–1040.—This article discusses our research findings regarding attachment security and RF.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the Society for Research in Child Development, 50*(1–2, Serial No. 209) 66–104.—This is the original article detailing the AAI and provides the conceptual rationale for the measure.

Slade, A. (2008). The implications of attachment theory and research for adult psychotherapy: Research and clinical perspectives. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 762–782). New York: Guilford Press.—Using case examples, Slade beautifully describes how central constructs and principles in the AAI can be used in clinical practice to understand and guide clinical work.

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