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The Guidebook of Attachment

The Child Attachment Interview (CAI)

Yael Shmueli-Goetz

Historical background

Over the last five decades attachment theory has generated a large body of research suggesting that the quality of the attachment relationship between a child and a parent is vitally important in children's long-term development. Early insecurity of attachment is believed by researchers and practitioners to cast a long and dark shadow over subsequent development. Individual studies have converged in showing that insecure attachment with the primary caregiver in infancy is significantly associated with poor developmental outcomes in the preadolescent years. Poor social competence and peer relationships, increased aggression and hostility and lower ego resilience have all been linked to early attachment insecurity (Lyons-Ruth, Connell, Zoll, & Stahl, 1987, Shaw & Vondra, 1995). A recent meta-analytic study from nearly 6000 children confirmed that children with a secure attachment in the early years present a significantly lower risk of developing aggressive and antisocial behaviour problems across childhood (Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsley, & Roisman, 2010). Critically, the impact of early attachment relationships on later adaptation does not appear to diminish with age. Numerous studies have documented that security of attachment measured in adolescence is associated with lower rates of delinquency, less negative peer pressure and more positive peer interactions (Allen, Porter, McFarland, McElhaney, & Marsh, 2007). The findings also suggest, as attachment theory predicts, that attachment representations are generally stable over time but also that interpersonal and environmental contexts change and may lawfully explain shifts in children's attachment organization. Development is seen as "homeorhetic" with individuals inclined to return to initial trajectories of development following slight deviations (Bowlby, 1973; Aikins, Howes, & Hamilton, 2009). Thus, the argument for more frequent assessments that may capture characteristic changes in parent-child relationships across development and chart the contexts in which they evolve.

The above findings converge in highlighting the importance of the early years as the bedrock for subsequent adaptation but also the importance of delineating the trajectory of attachment relationships and studying their developmental correlates beyond the early years. Whilst assessment tools designed to capture attachment organization in infancy and adulthood have been well established, the study of attachment in middle childhood and adolescence continues to present a challenge.

Historically, alongside the use of modifications of separation reunion procedures, detailed in preceding chapters, the most dominant approach to assessing attachment in early and middle childhood has involved the use of semi-projective play techniques such as the Story Stem Procedure (Emde, Wolf, & Oppenheim, 2003). The underlying notion is that inferred mental representations, elicited through attachment-related stories, would provide an accurate representation of children's attachment organization in the same way that behavioural patterns do. A plethora of attachment focused doll play procedures such as the

Manchester Child Attachment Story Task (Green, Stanley, Smith, & Goldwyn, 2000) and the Attachment Doll-play Interview (Oppenheim, 1997) are now available and widely used in the preschool and early school years, as described in previous chapters in this book. What cannot reliably be ascertained is whether these elicited representations also reflect other cultural or ideal representations and therefore contain distortions of children's experiences. Moreover, is it developmentally appropriate and meaningful to use such play techniques with older children and adolescents?

Attempts to elicit attachment representations more directly have led investigators to use the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). This reflects a shift in emphasis away from observable attachment and exploratory behaviours to an assessment of children's capacity for mental exploration, evaluated predominantly through narrative. However, such attempts have highlighted the difficulties in simply applying the criteria of an existing system to capture attachment in adulthood to a younger age. For instance, Ammaniti, van IJzendoorn, Speranza, and Tambelli (2000) have used the AAI with 10 to 16 year olds, reporting a predominance of dismissing strategies and few disorganized attachment representations. Could the proliferation in dismissing strategies represent a normative developmental shift from secure to dismissing 'states of mind' or rather does it reflect measurement error? Further, how can the underrepresentation of attachment disorganisation be accounted for? (see chapter X, Vol 1 for a fuller discussion) In a study of sexually abused girls, none of the girls were classified as showing markers of disorganization of attachment (J. Trowell, personal communication, October 2001).

One explanation would suggest that because the AAI relies solely on a discourse analysis, many aspects of non-verbal communication that may reflect attachment disorganization (for example, displaying regressive behaviour, making gestures or grimacing whilst talking about the loss of an important person) were not captured. Additionally, it is not clear whether the same criteria for the lack of resolution of loss and trauma may apply at this age.

It is against this backdrop that the Child Attachment Interview (CAI) was conceived as a viable alternative to existing measures, thereby addressing the "measurement roadblock" (Greenberg, 1999, p.486) in attachment methodologies. Consolidating the focus on eliciting representations directly as in the AAI together with an analysis of behaviours in a meaningful context, the CAI constitutes a direct interview measure to assess children's internal representations of their attachment relationships. The development of the CAI was guided by a number of important conceptual, developmental and methodological considerations;

First and perhaps most important, the "set goal" of the attachment system in middle childhood is no longer the attainment and maintenance of physical proximity to attachment figures but rather the establishment of their current availability (Ainsworth, 1990). Therefore the degree to which children perceive their parents as available and accessible, should the need for help arise (Kerns, Schlegelmilch, Morgan, & Abraham, 2005) becomes the focus of assessment. As Kobak (1999) suggested, "attachment security results from a dynamic transaction between internal working models and the quality of current attachment relationships." (p. 39).

Second, assessments of attachment in adolescence and adulthood are based upon the assumption that an integrated 'state of mind' with respect to attachment has been achieved. Whilst there is some evidence that this does occur in two thirds of children by college age (Furman & Simon, 2004) it is yet unclear when this process of integration begins and whether an overarching, singular 'state of mind' is present in middle childhood. The findings in infancy suggest that children hold independent working models of attachment, capturing the history of interactions with each caregiver, and this may still be the case for the school-age child.

Third, the evidence with respect to children's memory and recall capacity highlights their memory bias toward recent events and their tendency to describe themselves in terms of the immediate present (Damon & Hart, 1982). Informed by these findings and with the focus on current availability, it seemed more appropriate to ask children about current rather than past relationships, as compared with the AAI.

Fourth, what has been gleaned from using semi-projective assessments is the importance of adopting a developmentally appropriate interviewer stance. Providing appropriate scaffolding in the form of further prompts is imperative in helping children to remember episodes and tell their stories. Such an approach would make it possible to distinguish children's developmental limitation, expressed through an impoverished narrative, from a dismissing strategy. A related idea concerns the lack of "narrative diachronicity" (Bruner, 1994, p. 19) of children's narratives, that is, children's developmental limitations at sequencing events. Such a constraint might present as a preoccupied strategy or disorganized attachment but in fact represents a normative developmental stage. Furthermore, coherence more broadly or the lack of, might not necessarily reflect attachment insecurity; it may simply reflect the child's *linguistic egocentricity* (Piaget, 1923, p. 56).

Lastly, whilst the focus is on mental exploration reflected in narratives, children cannot yet fully mask or control behaviours that indicate anxiety or other emotions. An examination of non-verbal behaviour was therefore considered important as an additional helpful indicator of attachment strategies.

The Child Attachment Interview Protocol

With the above considerations in mind, the CAI was developed as a narrative based assessment designed to elicit children's internal working models of attachment. Unlike semi projective instruments, the CAI is a direct interview, calling on children to describe and reflect on their current attachment relationships and experiences. The interview is intended for use with 8 to 12 year olds, although it is currently in the process of being validated with adolescents up to the age of 16. In developing the interview and the corresponding coding system, we were guided by several existing models; the AAI's focus on discourse analysis, the Strange Situation Procedure's (SSP; Ainsworth, Blehar, Waters, & Wall, 1978) focus on meaningful behaviours in context, and on Luborsky and Crits-Christoph's (1990) system of segmenting a narrative into relationship episodes. The key was to sufficiently activate the attachment system in the hope of capturing individual differences in attachment organization. The CAI draws quite heavily on the AAI, with some notable differences. The

importance of the structure of the interview has been retained so as to reveal structural variations in response but a more flexible approach is advocated to assist children with its demands without compromising validity. Additionally, owing to children's limited attentional capacities, the interview is considerably shorter. Further, the interview focuses on recent events or episodes as opposed to retrospective accounts of early attachment relationships. Lastly, we included additional questions tapping conflicts and self concept or self esteem as these were felt to be important and relevant to attachment at this age.

Following extensive piloting work, 17 key questions were chosen along with appropriate prompts;

Table 1.

Child Attachment Interview Protocol

(Target, Fonagy, Shmueli-Goetz, Datta, & Schneider, 1998).

Introduction—interview not a test, want to know how things are like in your family from your point of view.

1. Can you tell me about the people in your family? The people living together in your house? (then ask about extended family.) Here establish who are main carers.
2. Tell me three words that describe yourself, that is, what sort of person you are.
Examples for each
3. Can you tell me three words to describe your relationship with your mum, that is, what it's like to be with your Mum? Examples for each.
4. What happens when your mum gets cross with you or tells you off? Example. Feel? How she feels? (Questions 3 & 4 repeated for Dad or other main caregivers)
5. Can you tell me about a time when you were really upset and wanted help? Example
6. Do you ever feel that your parents don't really love you? When? Do they know you feel that?
7. What happens when you're ill? Example.
8. What happens when you get hurt? Example.
9. Have you ever been hit or hurt by an older child or a grown-up in your family? How frequent? Example. Have you been badly hurt by someone outside your family?
10. Have you ever been touched in the private parts of your body by someone much older than you? How Frequent? Example? Feel? Others feel?
11. Has anything [else] really big happened to you that upset, scared, or confused you? Example.
12. Has anyone important to you ever died? Has a pet you cared about died? Example. How feel and others feel?
13. Is there anyone that you cared about who isn't around anymore?
14. Have you been away from your parents for longer than a day? (If child is not living with parents (e.g., is in foster care), ask about time when he/she left parents). How did you and parents feel? What was it like when you saw them again?
15. Do your parents sometimes argue? Example. How do you feel? Do they know how you felt?
16. In what ways would you like/not like to be like your mum/dad when you grow up?
17. If you could make three wishes when you are older, what?

The opening question was designed to allow the interviewer to establish who are primary attachment figures and to give the child an opportunity to get a sense of what the task is about. This is particularly important when working with looked after children who may have had multiple carers. It is followed by a series of questions designed to elicit children's self representations and representations of primary attachment relationships. The focus of the interview then shifts to times of conflict, hurt, illness, distress, separation and loss. Although there is a slight bias towards 'negative' events, it is at those times that children are more likely to call upon their attachment figure/s as a secure base, to support, understand and encourage and hence this focus. Children are not only assessed on their ability to describe coherently and collaboratively their experience but also on their capacities to reflect on these experiences and what they mean. Throughout the interview, prompts are used to "scaffold" or help children tell their stories with a focus on emotional processing, that is, how they feel, how others might feel, what they think about situations and so forth. These 'demand' prompts encourage children to mentalize about the impact of their experiences with an interested and empathic listener. The structure and content of the CAI gives a window into children's attachment histories and enables the practitioner to evaluate their capacity for emotional regulation which constitutes an important part of the assessment of their attachment security.

The Coding and Classification system (Shmueli-Goetz, Target, Datta, Fonagy, 2011).

The system was informed by the AAI (Main & Goldwyn, 1994) with some notable differences. Similar to the coding of the Story Stem Procedure (SSP), separate classifications are derived for the child's relationship with each caregiver, and the interview is scored directly from videotape alongside the verbatim transcript. Nonverbal and paralinguistic behaviours are thereby assessed alongside the narrative itself. The CAI comprises of nine scales, all aiming to assess the child's overall current state of mind with respect to attachment, as reflected in both narrative and nonverbal behaviour. A global interview score is assigned for each scale, based on a careful analysis.

The CAI scales

Preoccupied Anger
Idealisation
Dismissal
Emotional Openness
Balance of Positive and Negative References to Attachment Figures
Use of Examples
Resolution of Conflict
Coherence

The first three scales, namely, Preoccupied Anger, Idealization, and Dismissal, are rated separately with respect to mother and father, with the remainder of the scales, rated across the narrative as a whole. All scales range from 1 to 9, with the anchor points at odd values illustrated with examples. Where relevant, scales were adapted from the AAI coding system, recalibrated, and illustrated specifically for children's videotaped narratives. Scores assigned

on the aforementioned scales capture the presence or absence of a particular phenomena as well as how marked instances are.

The scale of **Preoccupied Anger** was based on AAI scale but adapted to reflect developmentally appropriate responses. At the low end of the scale, children are able to describe negative or conflictual events with little angry preoccupation and at the high end preoccupied anger is pervasive and uncontained. In contrast to the AAI, this dimension is found frequently to include not only anger but also denigration and contempt.

The **Idealisation** scale, also based on the AAI, assesses how plausible, consistent and truthful are children's attachment representations. At the low end, children are able to consistently support and illustrate how they described the relationship and no distortions are present. At the high end of the scale, very positive generalised statements are not supported and may be actively contradicted.

The **Dismissal** scale measures the extent to which children minimise the importance of attachment figures and relationships by active dismissal and/or derogation. At the low end, children affectively acknowledge the impact of events and appear comfortable with expressing vulnerability in response to separation and loss. At the high end of the scale, affect is deliberately and systematically excluded and vulnerability is vehemently denied.

The **Use of Examples** scale was informed by the AAI's Insistence on Lack of Recall scale, but the CAI scale additionally reflects children's ability to provide relevant and elaborated examples. At the low end of this scale, children provide either no examples or very impoverished descriptions. At the high end, children give detailed and clear examples that vividly illustrate the adjectives.

The **Emotional Openness** scale was developed to assess children's ability to express and label emotions and to ground them in descriptions of interactions with attachment figures. The scale was informed by Sroufe's (1996) affect regulation model and studies that have identified the importance of emotional openness as a central element in children's attachment-related narratives and as a marker of security of attachment. At the low end of the scale, children show a very limited range of emotional terms and make few references to emotional states even when encouraged to do so. At the high end, children use a range of appropriate emotional terms and reflect an appreciation of their temporary nature. They may also show an understanding that different people may have different feelings about the same event.

The **Balance of Positive and Negative References to Attachment Figures** scale was based on the assumption that secure children would more readily recognize and integrate positive and negative aspects of parental figures, thus presenting more balanced descriptions. At the low end of the scale, children are heavily biased toward either positive or negative aspects of the relationship. At the high end of the scale, children present a picture containing both positive and negative descriptions, so that the overall impression is of a balanced view.

The **Resolution of Conflict** scale considers children's ability to describe constructive resolutions to conflict that do not escalate into catastrophe has been closely linked to

attachment security and is conceptualized in the CAI. At the low end of this scale, children describe situations that seem to have no resolution. At the high end, children describe situations in which they actively sought to resolve a conflict.

Overall **Coherence** is rated similarly to the AAI's Coherence scale, on the basis of scores on all the other scales, together with a consideration of the overall consistency, development, and reflection. A low score is given to children showing marked idealization, poor use of examples, and strong involving anger. A high score would indicate an absence of any distortions, together with positive qualities of emotional openness, use of examples, balance of representations, and conflict resolution.

Attachment Disorganisation or Atypical behaviour is currently captured as present or absent and the manual contains a detailed, albeit not exhaustive, list of behaviours and discourse violations that we consider as indicative of a breakdown in an organised strategy. In addition, under the same heading, are subsumed behaviours and representations that reflect a controlling strategy, either punitive or caregiving. A separate scale that captures the severity of such behaviours is currently being developed as more examples of these behaviours are coming to light.

Alongside the linguistic analysis, a simple behavioural analysis of children's responses to the interview situation and questions is included. Maintenance of eye contact, changes in tone of voice, marked anxiety, changes of posture in relation to the interviewer, and contradictions between verbal and nonverbal expressions are all considered as part of the assessment.

Rating and classification

Once ratings have been assigned on each of the aforementioned scales, attachment classifications are determined independently. These are arrived at by two means. Firstly, by examining the constellation of scale scores establishing whether they meet the expected scores informed by theory and derived empirically. For instance, to obtain a *Secure* classification, children must be assigned a rating of approximately 5 or above on all scales except Idealization, Dismissal, and Preoccupied Anger where a score of 3 or less is expected. Secondly, by determining the degree of 'fit' between children's 'mental state with respect to attachment' as revealed in the CAI and the criteria developed to describe each category. For example, to meet the criteria for a *Secure* classification, children would present as open and collaborative, objective and valuing of their attachment relationships, and able to describe and discuss conflicts with little restriction or preoccupation.

Although the process did not start by clustering interviews with the intention of replicating the adult attachment classification prototypes, the emerging categories showed considerable overlap with those prototypically observed in infancy and adulthood. For this reason the names used for the three main categories of adult attachment were deemed most appropriate, namely, Dismissing, Secure, and Preoccupied, together with the Disorganised category of infant attachment. As noted, Disorganisation of attachment is coded categorically for presence versus absence of certain markers informed by two major sources; behavioural manifestations, including those identified as characteristic of

disorganized attachment in infancy and early childhood, but with some important additional markers appropriate for the behaviour of older children; and disruptions of narrative used in classifying certain AAI transcripts as Unresolved.

In addition, clear contradictions between verbal and nonverbal behaviour (e.g., giggling about the death of an attachment figure) were considered, along with other markers such as inappropriately familiar behaviour toward the interviewer, as suggesting disorganization of the attachment system. Additional criteria that capture a controlling stance, whether punitive or caregiving have also been developed.

Training in the use of the CAI

As the CAI is often used in clinical settings with at risk and vulnerable children and because the analysis of the CAI is complex, professionals are required to complete the CAI training. The short course in the administration and coding of the CAI is run by the author annually at the Anna Freud Centre in London. The four day training offers participants a good grounding in how to conduct the interview and how the interview is systematically analysed. Those wishing to code the interviews will be required to complete an additional reliability process before becoming accredited trainers. More information can be obtained on the Anna Freud Centre website.

The Psychometric Properties of the CAI

A recent paper on the validation work of the CAI (Shmueli-Goetz et al, 2008) reported on a community sample and a clinical sample of 288 children, with the clinical sample comprising children referred to the Anna Freud Centre and two inner London child guidance clinics for predominantly emotional and behavioural problems.

Inter-rater reliability for both expert coders who had been involved in the development of the measure, and naïve coders who had been trained by the author was established. Agreement on scale scores yielded an Intra Correlations median of 0.88 (range 0.71 to 0.94) reflecting good agreement. For the scale of Idealization with respect to father agreement was low (0.38) reflecting the absence of information about fathers that typified many of the CAIs (see also, Daae Zachrisson, Røysamb, Oppedal, Hauser, 2011; Borelli, David, Crowley, Mayes, 2010). Inter-rater agreement for the four classifications (Secure, Dismissing, Preoccupied, and Disorganised) ranged from 78% to 85% for mother and father with slightly lower agreement for father. Interestingly, high concordance (92%) was found between classification with respect to mother and father. Test–retest reliability of both scale scores and attachment classifications across a three month period and 1 year have been good (α 's 0.74–1.00 and α 's 0.72–0.79 respectively) as well as internal consistency of the scale scores and classifications (α 's ranged from 0.84 to 0.92 for 2 way, 0.84 to 0.85 for 3 way, and 0.74 to 0.89 for 4 way studies (Humfress, O'Connor, Slaughter, Target, & Fonagy, 2002; Shmueli-Goetz et al. 2008; Target et al. 2003). Good criterion validity has also been demonstrated with CAI classifications and the coherence scale discriminating community from clinic referred children with effect sizes in the range $d = 0.60 - 0.70$. CAI classifications have been shown to significantly correlate with children's attachment security, measured contemporaneously using the Separation Anxiety Test (64% agreement, Wright, Binney, &

Smith, 1995) and with measures of social adaptation (Shmueli-Goetz et al, 2008). Further, mothers' state of mind with respect to attachment assessed with the AAI significantly predicted their childrens' attachment status on the CAI in a sample of 88 dyads (69% agreement; see also Jacobson & Yumoto, 2009).

Crucially, security of attachment on the CAI has been shown to be independent of age, gender, socioeconomic status, ethnicity, verbal IQ, expressive language ability, and family composition (Target et al, 2003; Shmueli et al, 2008). In keeping with expected associations, CAI classifications have been found to correlate with concurrent symptomatology with insecurity associated with greater internalising and externalising behaviour problems. Finally, support for the construct validity of the CAI has confirmed a model including two dimensions, namely Security-Dismissal and Preoccupation-Idealisation as the best fitting one (Daae Zachrisson et al, 2011).

Emerging Findings

The appeal of the CAI lies in its diverse application as both a research and clinical assessment tool. Findings from varied projects are beginning to emerge. Evidence of the biological basis of attachment in middle childhood has recently been published showing that greater attachment security as assessed by coherence was associated with lower pre assessment cortisol levels, higher initial startle magnitude during threat and a faster decrease in startle magnitude during threat (Borelli, Crowley, David, Sbarra, Anderson, & Mayes, 2011). Moreover, dismissal in the CAI predicted underreporting of distress relative to event-related potentials (White, Wu, Borelli, Rutherford, David, Kim-Cohen, Mayes, Crowley, 2012). Examining attachment representations and concurrent psychosocial functioning, disorganised attachment has been linked to child reports of higher depressive symptoms and shyness.

Additionally, disorganised attachment was associated with parental reports of social anxiety, inattention and thought problems, all more likely to meet clinical criteria (Borelli, David, Crowley, & Mayes, 2010). In a high risk sample, strong moderating effects of disorganised attachment at age 14 were shown on the impact of prenatal alcohol exposure and on children's anxiety and depression (Jacobson & Yumoto, 2009). In keeping with these findings, Scott, Briskman, Woolgar, Humayun, & O'Connor (2011) reported that secure attachment representations were associated with key indicators of psychological adjustment such as parental reports of oppositional defiant disorder symptoms and teacher reports of emotional and behavioural difficulties. Furthermore, secure attachments explained unique variance in these indicators of adjustment, independent of separate measures of the quality of parenting. In addition, the CAI has recently been adapted to elicit representations of relationships with foster parents alongside those with biological parents. Comparing the functioning of late placed children who had been abused with a control sample of adolescents from similar inner-city area, the findings highlighted higher rates of attachment security to the foster carers. However, marked difficulties in other domains were shown suggesting that 'new' representations guide expectations and behaviours alongside 'old' ones (Scott, 2009).

The above studies have used the CAI with adolescents (up to age 17) as an alternative to the AAI because the procedure is particularly appropriate when mental age is an important

consideration as it is a less demanding interview. More recently, Fearon, Shmueli-Goetz, Viding, Fonagy and Plomin (in preparation) completed a large scale study assessing the behavioural genetics of attachment in adolescence in a sample of 551 same sex twin pairs 15 year olds (the Twin Early Development Study; TEDS). Concurrent links between attachment insecurity, antisocial behaviour and a host of other psychosocial variables were examined as well as family and peer relationships. Preliminary findings suggest an increased role of genetics and non-shared environment in adolescent attachment. The contribution of paternal and maternal mentalization (see chapter X) to shaping attachment in adolescence is also under investigation with findings pending. Finally, the CAI has been used as the basis for an assessment of children's mentalization capacities. Ensink, Normandin, Sabourin, Fonagy, and Target (in press) found that child sexual abuse was significantly associated with mentalization failures, measured four to six years after the occurrence of the abuse and those associations proved robust even after controlling for children's age and maternal mentalization. This development opens new possibilities for the assessment of mentalization in children and adolescents alongside an assessment of the quality of attachment relationships.

Implications for interventions

As a research tool, the CAI offers a standardised, reliable and valid assessment of the quality of the parent-child relationship. However, for the clinician the CAI offers a highly relevant and structured clinical interview which, in addition to other observations, may provide a unique window onto children's experiences of family relationships and parental availability. Such a perspective, alongside other assessments may be useful in informing professionals as part of a complete assessment of the health, safety and welfare of children. Consequently, the CAI has the potential to enhance the quality of clinical assessments, inform clinical decisions regarding psychotherapeutic interventions, and provide a possible measure of clinical outcome. It is generally held that children's and adolescents' increasing cognitive and self-regulatory abilities coupled with appropriate therapeutic intervention may enable them to move back towards attachment resolution, i.e. a decrease in the use of defensive strategies. Thus, the CAI could be a particularly useful tool in delineating potential change as it enables a more fine-tuned dimensional approach. Alternatively the CAI offer a measure of baseline functioning and has recently been used with a large sample of adolescent in-patients looking at attachment status as a predictor of treatment outcome (*Venta, Shmueli-Goetz, & Sharp, submitted*).

Almost as importantly, the CAI joins a small group of measures that offer a bridge across the almost traditional divide between clinicians and researchers (Fonagy, 2000).

The combination of clinical relevance and robustness as a measure, offers collaborative possibilities in order to develop more finely tuned models of both normal and psychopathological development. The CAI thus provides a forum in which clinicians may see the relevance of research and researchers appreciate the complexities of clinical work.

In sum, the CAI constitutes a developmentally appropriate semi structured assessment of children's and adolescents' internal working models of attachment relationships. Its strength lies in its relevance combined with research reliability and validity. In keeping with

its subject matter, the CAI is also a work in constant development as more observations and data on different populations are gathered and more finely tuned questions become accessible for investigation.

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