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Parent-Child Interaction Assessment-II:  
Psychometric Properties and the Application of Coding Systems  
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Holigrocki, R. (2010). Parent-Child Interaction Assessment-II: Psychometric properties and the application of coding systems. Manuscript in preparation. University of Indianapolis.

### Abstract

The Parent-Child Interaction Assessment-II (PCIA-II; Holigrocki, Kaminski, & Frieswyk, 1999, 2002) is a structured observation task that involves videorecording parents and children playing with toy figures and animals at an imaginary zoo. The article describes the qualitative and quantitative use of the instrument and provides an assessment of its utility. Employed as a qualitative method, the PCIA-II is well suited for illustrating interpersonal dynamics and complements data elicited from self-report and free response measures. As a quantitative method, the PCIA-II is typically employed with interval based coding systems. The interrater reliability of code scores are in the good to excellent range and have demonstrated concurrent and known-groups validity. Guidance is offered regarding the design, evaluation, and implementation of coding systems with the PCIA-II.

## Parent-Child Interaction Assessment-II: Psychometric Properties and Application of Coding Systems

The widespread use of rating scales as the primary method of data collection in empirical research may limit and constrain the questions that social scientists ask. For example, rating scale measures are ideal for comparing how people endorse a set of items related to a construct, a method well suited for studying phenomena reducible to a score. Rating scales measures are also useful for measuring the extent to which a person reports the experience of a phenomenon during a specified time-period. However, in the measurement of dynamic events involving interpersonal processes, the information compacted into a score derived from rating scales may not well approximate an evolving process. This is why, for example, there are many rating scales for individual psychopathology constructs, such as depression and anxiety, but few for relational constructs such as attachment or attunement.

Compared to rating scale measures, free response measures may provide greater insight into dynamic evolving processes. For example, a sequential analysis of Rorschach scores can illuminate the processes of concern, defense, and recovery (Weiner, 1998/2003). However, free response measures are usually utilized for assessing individual phenomena with relational implications, rather than an interpersonal process itself. For instance, clinicians such as Peebles-Kleiger (2002) and Weiner (1998/2003) offer guidance for the free response measurement of evolving intrapsychic sequences, but rare are examples of free response measures used to directly assess an evolving interpersonal dynamic (see Finn, 2007 for one such consensus Rorschach example).

Observational measures offer the researcher a different type of lens by which to study phenomena. Neither free response nor observational systems are immune to the challenges faced by rating scale assessment, however. They too may be reductionistic by distilling analog complexity to frequency counts of static phenomena. Yet, a unique characteristic of some free response and observational data is that the event under study can be examined from an evolving intrapsychic perspective, providing information apart from a score or item analysis. As well, an observational measure has the potential to situate an observed phenomenon in an evolving interpersonal matrix.

### *Description of the PCIA-II*

The Parent-Child Interaction Assessment-II (PCIA-II; Holigrocki, Kaminski, & Frieswyk, 1999, 2002) is a structured observation and video recall procedure that was designed to facilitate interpersonal assessment. As a way of supplementing rating scale and/or free response assessment, the PCIA-II provides a method of eliciting a narrative from a parent and child as they co-create a story related to a zoo trip. The measure is suitable for studying the interpersonal dynamics of adults and children aged 3- to 10-years old.

The PCIA-II begins with the examiner, parent, and child seated at a table upon which sits a board with toy people, animals, and blocks. The examiner starts the parent and child on the task of building a zoo and briefly leaves the room during this building activity. Returning to the room, the examiner presents the first of 15 story stems to the parent and child. The story stems cover many aspects of parent and child functioning, including attachment and attunement themes “Bill is lost at the zoo” or “Bill has hurt his

arm,” limit setting “Bill has climbed onto a high rock,” and negotiation “It is time to leave the zoo but Bill wants to play on the seesaw.” Each stem is followed by the prompt, “Play out what happens together” and the dyad uses the toys to respond during a 90-second interval. Once the story stems have been completed, the dyad clears up the toys, and the Inquiry phase begins. During the Inquiry, the parent and child each individually view the recording and are asked questions to elicit their reflections on what transpired. Transcripts or videorecordings of the interactions are then analyzed by clinicians and researchers using qualitative and/or quantitative methods.

This measure is used for research and clinical assessment purposes and has recently been integrated into a cognitive-behavioral treatment. As a research instrument, the measure has been employed with diverse samples, such as depressed parents, parents with eating disorders, parent victims of domestic violence, children with attentional disorders, children with behavior disorders, and an international sample from Hong Kong. Clinically, the measure has been applied to assess how psychopathology in the parent, child, or both impacts interaction and the implications of relational disorders to treatment planning. As a psychotherapeutic treatment, the Parent-Child Interaction Assessment-II Modifying Attributions of Parents (PCIA-II/MAP, Bohr 2005), provides clinicians with a way of facilitating a parent’s strengths and identifying and modifying his or her negative attributions.

#### *Coding Systems*

The first version of the PCIA was developed in 1999 along with a method of coding the PCIA videotapes for parental attunement. It was always the intention of the authors that the PCIA be versatile enough to yield data regarding multiple facets of parent functioning, child functioning, and dyadic functioning. During the last decade, the PCIA has undergone revisions that have involved clarifying its administration instructions, with the current version named the PCIA-II. Many coding procedures have been developed for the measure, some used only for particular studies and others that have been employed across multiple studies.

What can be confusing about the PCIA-II is that there exist multiple ways of coding the observational data. What the PCIA-II shares with the TAT is that the recorded data can be understood through the application of qualitative interpretive methods, quantitative coding systems developed specifically for the measure, and quantitative coding systems adapted from other measures. For example, the clinician using a TAT may read through the stories extracting themes (Lerner’s application of a qualitative interpretive method), code the TATs using a system developed specifically for this purpose (e.g., Cramer’s Defense Mechanism Manual), or apply a coding system that was originally developed to code another type of data (Westen’s SCORS which was designed to code WAIS Picture Arrangement stories). Likewise, the PCIA-II data can be analyzed thematically by a clinician interested in facets of the jointly created narrative, coded for parental attunement using an observational procedure designed for the PCIA-II, or coded for attachment or relational functioning using coding systems adapted from another task (ADSCLT, or AMBIENCE).

The challenge for the clinician or researcher considering using the PCIA-II is that there has been a limited body of work published on this measure. To date, there are seven peer reviewed journal articles that are case study focused and empirical studies utilizing

the instrument have only appeared in dissertations and presentations. A summary of this body of work is provided below, beginning with an overview of the qualitative use of the PCIA-II followed by a description of the psychometrics of the quantitative codes.

#### *Qualitative Method*

The PCIA-II provides rich qualitative data about the parent, child, and their interaction during play. Qualitative analyses of individual cases have provided the bases of several published articles (e.g., Holigrocki, Kaminski, & Frieswyk, 1999; Holigrocki & Kaminski, 2002; Holigrocki & Raches, 2006; Holigrocki & Hudson Crain, 2004; Holigrocki et al., 2009). Researchers employ a thematic approach to draw inferences from videotapes and transcripts; and themes are generated and clustered into meaningful sets.

Holigrocki and Kaminski (2002) describe the method as follows:

Although observed interactions show variability and innovation, there is an apparent coherence throughout the interaction. The dyad's behaviors and verbalizations are understandable in terms of the coherent underlying themes of self and other experience. Tacit conceptions of self and other serve as invariant structural configurations that coherently organize the dyad and underlay the videotaped observations. Underlying themes are inferred from the observed expressions, the thematic whole, and observed parts each providing a context for one another (p. 122)

Employing this method they found that a child's activities which were undermining the parent's tacitly held beliefs were being ignored or refuted by the parent, while the parent was actively attending to the child's activities that were coherent with her self and other views. The qualitative use of the instrument allowed them to describe how the child's initiatives were being shaped by the parent's responses, and to draw inferences about how dyadic play provided a method of transmitting beliefs about self, others, and the world.

In a later article, Holigrocki and Hudson-Crain (2004) reviewed PCIA-II videorecording to generate inferences that served to explain a parent and child verbalizations and behaviors in the fewest possible themes. In particular, the videotapes and transcripts were reviewed to track the nature and timing of parent and child's affective states and the affective data were mapped onto the thematic material. Rating scale and free response data were then revisited from the position of the cognitive-affective themes inferred from the PCIA-II, a method of inquiry similar to the structural analysis described by Stolorow and Atwood (1984). This method is well suited for developing formulations that capture individual representations, behaviors, and relational dynamics. The authors explain how the PCIA-II illustrates a child's internalized relational dynamics that shape his self and other representations. Through the boy's oppositional, inattentive, and aggressive behaviors, he was attempting to maintain power and ward off feelings of vulnerability if not actual victimization. His mother's own history of victimization was expressed through her attempts to gain the upper hand through aggression and control, but in so doing was facilitating the child's identification with the hostile person she believed him to be.

Holigrocki and Raches (2006) explored how data elicited by the PCIA-II enhanced data gathered from rating scale and free response measures. The article describes the interpersonal interplay of representations and symptoms as well as the

manifestation of a child's posttraumatic play. The authors demonstrate how a child sexual abuse victim's play during the PCIA-II was a reenactment of her abuse history and illustrated her pervasive oppositional behavior with her mother.

In all of these articles, the researchers and clinicians attempt to explicate the underlying order or coherency in a system that superficially seems to be in a state of disarray. The authors also emphasize how the PCIA-II data converges with and extends the data gathered from other instruments, which is apparent across rating scale measures of parent psychopathology, parenting, and child psychopathology, as well as the TAT.

As well as an assessment measure, the PCIA-II is being employed as part of a cognitive-behavioral therapy brief treatment, the Parent-Child Interaction Assessment-II Modifying Attributions of Parents intervention (PCIA-II/MAP; Bohr, 2005; Bohr, et al., 2008; Bohr & Holigrocki, 2005; Holigrocki, et al., 2009). After the pretreatment PCIA-II is recorded, the research team watches the video for signs of parenting strengths and parenting challenges. Over the course of four therapy sessions, these critical moments are shown to the parent and the parent is asked questions designed to elicit attributions about the child and modify those that are maladaptive. The PCIA-II's value has been in its ability to elicit parenting strengths and problematic parenting behaviors that become the central focus of parenting interventions. Benman (2009) examined pretreatment and posttreatment PCIA-II changes of three dyads with mothers in treatment for domestic violence finding that all mothers displayed decreased frequency of atypical maternal behaviors on the PCIA-II.

Taken together, these qualitative case studies illustrate the utility of the PCIA-II as being sensitive to parent strengths, parenting problems, dysfunctional relating, and individual disorders. Further, the cases provide preliminary support for the validity of the measure through the PCIA-II's convergence with rating scale and free response findings.

#### *Quantitative Method*

The quantitative method involves applying a coding system to the PCIA-II videotapes to permit the tabulation of target events and the statistical analysis of such phenomena. Several PCIA-II codes have been developed for child and parent constructs and the codes have been applied to the study of diverse samples.

The standard protocol for establishing the reliability and validity of PCIA-II codes has been to utilize several samples. The samples are used for rater training, establishing interrater reliability with blind raters, and testing hypotheses regarding validity. Unlike a rating scale measure where reliability is determined in part by item-to-total correlations and split-half correlations, considerable variability is expected from one PCIA-II scenario to another. The issues pertinent to PCIA-II reliability share some similarities with assessing the reliability of the Thematic Apperception Test (TAT, Murray, 1943) where scores may vary from one PCIA-II scenario (or TAT card) to another, depending upon how the examinee interprets the stimulus. Interrater reliability is of primary importance for the PCIA-II and a psychometric evaluation of the measure is limited to the measuring the psychometrics of the employed coding system rather than the PCIA-II itself. Depending upon the behavioral code, intraclass coefficients (ICC), kappa, or percent agreement have been used to assess reliability. Concurrent validity is evidenced through correlations in predicted directions between PCIA-II codes and other measures and by known-groups validity (comparing results obtained from relevant samples). What follows

is a summary of the reliability and validity of data obtained using several behavioral codes. The child codes are presented followed by the parent codes.

#### *Child Codes*

Child aggression (Kaminski, Warren, & Kallstrom-Fuqua, et al., 2006). Child aggression refers to aggressive acts that occur in play with the parent that are directed toward self or other harm. Raters code for the presence or absence of aggression in either a 30-second or 10-second interval, depending upon the study. Interrater reliability is in the excellent range across three separate studies: Raches (2004) reported ICC = .82 overall, with aggression toward self ICC = .68 and aggression toward others ICC = .85; Burchfield and Holigrocki (2009) reported kappa = .75; and Warren (2003) reported 94% interexaminer agreement. In comparisons of the codes obtained from diverse samples, Raches (2004) reported that children with conduct problems engaged in more aggressive acts than children without conduct problems (Cohen's  $d = .41$ ). She also recommended using the PCIA-II with specific scenarios and, limited to these scenarios, significant correlations in the expected directions were shown with the CBCL/6-18 Externalizing scale ( $r = .48, p < .05$ ) and the Affect Tone dimension of the Social Cognition and Object Relations Scale (SCORS-AT; Westen, 1990) ( $r = -.58, p < .05$ ). Burchfield and Holigrocki (2009) found that children of depressed mothers were more aggressive than children of nondepressed mothers ( $d = .70$ ). Warren (2003) reported that children with ADHD displayed more aggression than children without ADHD ( $d = .45$ ).

Child compliance and noncompliance (Holigrocki, Frieswyk, et al., 2002). Several methods have been used to code child compliance. In the method employed by Raches (2004) and Au Young and Holigrocki (2004), raters examined transcripts for each incident of a parental suggestion or command. Raters then coded the child's responses to the parent's statements as complying or not complying. Instead of coding PCIA-II transcripts, Burchfield and Holigrocki (2009) rated videorecordings for the presence or absence of noncompliance observed during each 10-second interval. Interrater reliability was excellent for this code with child compliance ICC = .92 and noncompliance ICC = .80 (Raches 2004), child compliance ICC = .91 and noncompliance ICC = .99 (Au Young & Holigrocki, 2004); and noncompliance kappa = .80 (Burchfield & Holigrocki, 2009). In comparisons of the codes obtained from diverse samples, Raches (2004) reported that children with conduct problems refused to comply with parent directives more frequently than did children without conduct problems ( $d = 1.04$ ) and compliance was also in the expected direction ( $d = -.82$ ). Compliance was also correlated in the expected direction with CBCL/6-18 externalizing scales and the SCORS-AT (Westen, 1991), suggesting compliance is associated with limited externalizing problems and more benevolent internal representations. A sample of children in Hong Kong were found to show greater compliance and less noncompliance than European-American children,  $ds = .92$  and  $-.45$ , respectively (Au Young & Holigrocki, 2004). Burchfield and Holigrocki (2009) reported that children of depressed parents were more noncompliant than children of nondepressed parents ( $d = 1.34$ ).

Child withdrawal. Raters have coded for the presence or absence of a child's verbal communication to his or her mother during 10-second intervals (Burchfield & Holigrocki, 2009). Interrater reliability was high (kappa = .75) and the mean scores of

children of depressed mothers were higher than scores from children of nondepressed mothers across scenarios ( $d = .26$ ).

**Child negative affect/internalizing.** Negative affect involves the child's display or report of internalizing emotions (i.e., sadness, depression, or anxiety). Raters code for the presence or absence of negative affect in 30-second intervals. Interrater reliability was good ( $\kappa = .74$ ) and the mean scores of children of depressed mothers were higher than children of nondepressed mothers across scenarios ( $d = .74$ ) (Burchfield & Holigrocki, 2009).

**Child attachment.** Burch (2008) classified children as secure or insecure based upon a coding scheme adapted from the Granot & Mayseless (2001) version of the Attachment Doll Story Completion Task (ADSCT, Bretherton, Ridgeway, & Cassidy, 1990). Raters classify children's behavior on PCIA-II scenarios into the four major attachment prototypes: secure, avoidant, ambivalent, and disorganized. The PCIA-II videorecordings are rated and classified according to several story dimensions: child's use of emotional expression, child's relationship with the caregiver, depiction of events giving rise to attachment behavior, and narrative structure of child's story. Interrater reliability for the secure versus insecure attachment classifications was good ( $\kappa = .69$ ). Apriori validity for the attachment categories was not established; instead, the researcher, blind to the PCIA-II categorization, categorized subjects into secure and insecure groups based upon profiles of rating-scale scores. Although the correlation between the rating-scale attachment classification and PCIA-II classification was low ( $\kappa = .22$ , level of agreement 61%), a problem that may be related to the rating-scale classification, preliminary support for the PCIA-II secure and insecure classification was provided from two other sources. First, insecure children compared with the secure children engaged in more externalizing ( $d = .64$ ) and internalizing behaviors ( $d = .42$ ). The parents of the insecure children compared with the parents of the secure children were less likely to foster their children's power and independence ( $d = -.70$ ), had parenting practices more similar to identified child abusers ( $d = .46$ ), had high parenting stress ( $d = .47$ ), and were more likely to deny their own childhood difficulties ( $d = .45$ ). Second, a discriminant analysis was performed to assess the contribution of variables to the secure versus insecure categorization. The variable with the largest canonical structure coefficient was the parents not fostering the children's power and independence (total structure coefficient = .48). Other important predictor variables include children's externalizing problems (coefficient = -.44), parents' distress (coefficient = -.35), parents' unhappiness (coefficient = -.32), children's internalizing problems (coefficient = -.30), and parents' denial of their childhood difficulties (coefficient = -.30).

#### *Parent Codes*

**Parental attunement:** Several variations of parental attunement measures have been developed. The most recent is the Global Assessment of Parental Attunement (GAPA; Kaminski, Warren, & Austin, et al., 2006) that involves having raters code videorecordings for the presence or absence of attunement or misattunement that occurs across the following five domains: physical relatedness, verbal relatedness, emotional synchrony, attentiveness, and promotion of initiative. Ratings for each of these ten variables occur every 15-seconds. Interrater reliability has been demonstrated across multiple pairs of raters, ranging from  $\kappa = .60$  to 1.0 (Austin, 2007). The convergent

and divergent validity of GAPA was tested by Austin (2007) utilizing a series of self-report and observational measures as well as a variable with no expected correlations (child age). Not all correlations reached significance; however, those that were significant were in the expected direction. For example, physical misattunement was negatively correlated with the Child-Parental Acceptance Rejection Questionnaire (PARQ, Rohner, 1999) child report of parental warmth ( $r = -.34, p < .05$ ) and positively correlated with the PARQ parent's report of parental aggression/hostility ( $r = .31, p < .05$ ) and observed Parent Physical Nurturance on the PCIA-II ( $r = .37, p < .01$ ). Parents deemed to be at higher risk for continuing a cycle of abuse, as determined by elevations on Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) and the Child Abuse Potential Inventory (CAP; Milner, 1986), scored significantly higher on all misattunement scores than parents deemed to be at less risk (no elevations on CTQ and CAP). Further, parental emotional misattunement was a stronger predictor of child abuse potential than was self-reported parental empathy.

Parental disengagement/verbal withdrawal. Raters have coded for the presence or absence of mother's verbal communication to her child during 10-second intervals (Nance, 2008). Interrater reliability was high ( $\kappa = .78$ ) and the mean scores of depressed mothers were higher than nondepressed mothers across all coded scenarios, with the largest differences occurring in the PCIA-II High Rock, Tunnel, Lost Child and Stranger scenarios ( $d = .45, .52, .72$  and  $.65$ , respectively).

Parents' positive and negative personal comments about the child (PPC and NPC; Kaminski, Warren, & Kallstrom-Fuqua, et al., 2006). Raters have coded for the parent's praise or criticism of the child and the frequency of each is tallied over each scenario. Interexaminer agreement for the PPC and NPC is good with 71% and 86% agreement, respectively (Kaminski, Jones, et al., 2004). Validity of these codes has been demonstrated in two studies. Kaminski, Klinger, and colleagues (2004) coded for PPC and NPC in a study of maternal body dissatisfaction. Mothers with high body dissatisfaction (BD) gave low levels of PPC to their daughters (correlation of BD with PPC =  $-.60, p < .01$ ) but not their sons (correlation of BD with PPC =  $.01, p = NS$ ). Negative personal comments were not significantly related to maternal body dissatisfaction in parent's relationships to boys or girls. In another study, Kaminski, Jones, and colleagues (2004) contrasted the parent-child interaction of boys with ADHD with comorbid conduct problems to parents of boys with ADHD without comorbid conduct problems. Mothers of ADHD+CP boys displayed more NPC toward their sons than did mothers of ADHD boys ( $d = 1.15$ ) but PPC did not differ. The researchers used an aggregate variable of PPC-NPC to calculate Positive Parental Verbal Responsiveness (PPVR). Mothers of ADHD+CP boys displayed less PPVR toward their sons than did mothers of ADHD boys ( $d = -1.42$ ).

Parental positive and negative affective expression (PA and NA; Kaminski, Warren, & Kallstrom-Fuqua, et al., 2006). These codes are given when a parent verbally expresses an affect state that is positive (e.g., happy, glad, excited, etc.) or negative (e.g., angry, worried, anxious, jealous, etc.). The frequency of affect expression is tallied separately for positive or negative affect for each scenario. Kaminski, Klinger, and colleagues (2004) in a study of maternal body dissatisfaction coded for PA and NA. Mothers with high body dissatisfaction expressed low levels of PA and NA to their

daughters (correlation of BD with PA =  $-.69$ ,  $p < .01$ ; BD with NA =  $-.47$ ,  $p < .01$ ) but not their sons (correlation of BD with PA =  $-.09$ ,  $p = NS$ ; BD with NA =  $.26$ ,  $p = NS$ ).

Negative affect, parent control and disruption of play (DP, PC, NA; Holigrocki & Louria, 2005). Negative affect is coded for any 10-second interval when a parent displays anger (e.g., shouting, banging table), anxiety (e.g., rapid speech, fidgety behavior), or sadness (e.g., flat affect, tearful). Parent control is coded for any 10-second interval when a parent engages in any of the following behaviors: setting limits, punishing, frightening, aggressing, criticizing, or commanding. Disruption of play is measured by the frequency of intervals with the co-occurrence of NA and PC. Intraclass coefficients averaged across two scenarios were in the excellent range ICC =  $.88$ . In a community sample, NA, PC, and DP were positively correlated with the parental depression, parental anxiety, parenting stress, and children's externalizing problems. Correlations with child internalizing problems were not significant (Holigrocki & Louria, 2005).

#### *Notes on Applying Coding Systems*

The fifteen PCIA-II story stems are designed to pull for or activate various behaviors in the parents and children. Hence, certain parent or child behaviors can be expected to be more frequent in some scenarios compared with others. When selecting scenarios for raters to code, one should have a rationale for including or excluding scenarios based upon the samples chosen and hypotheses tested. Scenarios variously elicit concerns such as mutual play, competition, reassurance, safety, nurturance, compliance, oppositionality, protectiveness, danger, abandonment, negotiation, and so forth; depending on the code, some scenarios will be essential, others useful, and some of limited or no relevance.

The data coded by raters can be video excerpts, transcripts, or both. The typical coding method employed that has lent itself to good interrater reliability involves coding videorecordings for the presence or absence of a construct in a set time interval (10 to 30 seconds depending upon the construct). Briefer intervals allow for better discrimination among subjects for frequently occurring events of short duration, but place a larger burden on raters' attention. Researchers using the PCIA-II may find that coding specific events or transactional event sequences are better suited to their purposes than are the interval methods employed thus far. Bakeman and Quera (1995) offer useful guidance in this direction.

Some researchers have been applying previously developed coding systems to the PCIA-II. Before doing so, researchers should note the similarities and differences of the PCIA-II to the activity that was being assessed by the coding system under consideration. Most importantly, the PCIA-II is a parent and school-age child story stem task that pulls for dyadic imaginative play. Coding systems designed for either assessing parent-infant interaction or story stem activities including only the child, will need considerable adaptation. Current efforts in this direction have involved Burch's (2008) adaptation of the Granot and Mayseless (2001) version of the Attachment Doll Story Completion Task (ADSCT, Bretherton, Ridgeway, & Cassidy, 1990) and Bohr's (2005) PCIA-II adaptation of the Atypical Maternal Behavior Instrument for Assessment and Classification (AMBIANCE; Bronfman, Parsons & Lyons-Ruth, 2004; Lyons-Ruth, 2000). For example, Burch's adaption of the ADSCT required matching PCIA-II scenarios with

ADSCT scenarios and adapting this child-focused coding system to accommodate the mothers' involvement in co-creation of the PCIA-II stories.

*Summary*

The PCIA-II is a method of gathering data pertaining to an evolving dynamic relationship between a parent and a child. The measure is used in research, psychological assessment, and most recently as part of a treatment program. The videorecordings or transcripts can be analyzed using a qualitative method involving a thematic analysis or by the application of a coding system. The interrater reliability of PCIA-II codes are in the good to excellent range when judged by the kappa and intraclass correlation standards for interexaminer agreement (see Cicchetti, 1994). The PCIA-II codes have demonstrated concurrent validity, correlating in the expected direction with other measures. The codes have also demonstrated known-groups validity, distinguishing between nonclinical groups and relevant samples children with conduct problems, ADHD, or attachment problems, depressed parents and their children, and parents at risk of child abuse. Researchers must make rational decisions regarding which scenarios to code, sample length, interval length, whether to code videos or transcripts, and whether they should use an existing code or adapt a previous code to be sensitive to dyadic imaginative play.

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