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Introduction to the Parent-Child Interaction Assessment

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The Parent-Child Interaction Assessment (PCIA) is a procedure developed to yield data about parental attunement as well as other aspects of parent, child, and dyadic functioning. The procedure involves videotaping parents and children ages 4-10 years as they go on an imaginary trip to the zoo together. They begin with a short free-play interaction and then "play out" several scenarios with toy people, animals, and blocks. After cleaning up the toys, the parent and child each are shown the videotape of their interaction. The parent and the child are interviewed about what he or she and the other person are doing, thinking, feeling, and wanting. This article describes the development and theoretical basis of the PCIA. A coding system under development and potential research and clinical applications are discussed. Case examples are provided to illustrate the PCIA. (Bulletin of the Menninger Clinic, 63[3], 413-428)

Three years ago, a group of psychologists and postdoctoral fellows at The Menninger Clinic began meeting and discussing how we might combine our interests in psychological testing, developmental psychopathology, and the transgenerational transmission of psychopathology. We were interested in understanding the nature of healthy and disturbed parent-child relationships with the intent of altering maladaptive patterns of relating through individual and family psychotherapy. To begin our research, we needed a method

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The authors are grateful to Drs. Peter Fonagy and John Sargent for their ongoing consultation. Special thanks to Dr. Jon Allen for his encouragement as well as his comments and suggestions on an earlier draft of this article. The authors also acknowledge Drs. Charles Fantz, Peter Parks, Ephi Betan, George Hough, Kostas Katsavdakias, Karen Shectman, and Ms. Greta Hochstetler for their invaluable intellectual contributions and creative involvement with the PCIA.

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of diagnosing parent-child relationship disturbances and a way of measuring whether our proposed interventions would be effective.

Our review of parent-child interaction literature did not uncover a procedure that elicited the aspects of parent-child functioning in which we were interested. What we were searching for was a rich method of observing parent-child functioning. That is, we were interested in a procedure that would elicit information about the representational worlds and the behaviors of each member of the parent-child dyad. Our recent work has involved developing such a procedure.

This article outlines the theory and rationale behind the Parent-Child Interaction Assessment (PCIA; Holigrocki, Frieswyk, Kaminski, & Hough, 1999) and describes its current research and clinical applications.

Contemporary psychoanalytic perspective

Observation and measurement are always dependent on theory. Each of our team members is influenced by contemporary psychoanalytic theory, and it is from this base that we have sought to develop a procedure that would help us to examine questions that are pertinent to us. Underlying the PCIA's development is a theory that makes assumptions about mind, behavior, development, relationship, and context. A summary of this perspective follows.

During the first months of life, an infant's knowledge of the world is relatively simple. The infant knows the experiences of body and the surrounding environment, not as an adult knows them, but in terms of the infant's rudimentary motoric, sensory, perceptual, affective, and cognitive capabilities. In addition, the infant's understanding of the world is continually evolving and is influenced by the wishes, needs, fantasies, and fears of the parents. Even prior to the child's birth, the parents and community are actively involved in bringing meaning to the child.

Children naturally alter the ecology of which they are a part. A child is not a passive recipient of knowledge in the world; instead, the child reaches with mind and fingers to grasp, manipulate, and intentionally alter the forms and structures in the environment. The child is also emotionally connected to the environment; experiences of joy, anger, sadness, and anxiety all inform and define for the child relationships with others and the world. With the development of language and abstraction come the abilities to appreciate, know, and alter the world in new ways. Accompanying greater cognitive complexity are the capacities to recognize new distinctions and to learn new steps in a dance that will deeply embed the child into the world of culture and shared social meanings.

A person's actions flow meaningfully from how he or she under-

stands the world. Such understandings are in part conscious, but may also be composed of processes that are unavailable to immediate conscious awareness. The term "structure" describes this product and function of mind that provides a person with guidance for intentional behavior. As the child's cognitive-affective structures evolve, the child acquires an increasingly complex representation of the physical, psychological, and interpersonal worlds.

The child develops embedded within a milieu that is largely influenced by the parents' perceptions, emotions, and actions. Parents can foster the child's growth through behavior that is related to an understanding of what their child is needing, thinking, and feeling. Doing so involves recognizing a child's competence and capabilities while being sensitive to the child's limitations and anxieties. Rather than seeing the child as a replica of someone from the past, the parent must be willing to discover in the child someone cherished and new. The child's active structuring of parental understanding and behavior is the fundamental process from which the child develops an understanding of self and other people.

A parent's behavior toward a child is influenced by representations that were formed throughout the parent's own childhood and adulthood. As psychoanalytically informed therapists, we hypothesize that treatment can facilitate changes in the representational worlds of parents and children and reduce the likelihood of the transgenerational transmission of parent-child problems. That is, newer internal representations or conscious awareness of older ones can lead to different patterns of relatedness. We developed the PCIA to test hypotheses such as these.

Attributes of an interactional procedure

The preceding theory describes children and parents as embedded in what Mitchell (1988) would call a relational matrix. It is a theory that emphasizes the parent and child's joint role in making the world meaningful. To assist in our study of this interactional process, our group needed a way of eliciting information about the behaviors and representations of parent and child as they interacted. We decided on several criteria that we deemed important components of a parent-child interaction task.

We were primarily interested in experientially based data. That is, instead of relying on a parent's self-report, trained raters would code actual interactions that were taking place between the parent and child. To better ensure that the observed is more than a creation of the idiosyncratic interests of the examiner, the coding system would need to be amenable to psychometric tests of reliability and validity.

We also wanted a procedure that would elicit phenomena that could

be coded for constructs of interest. In particular, our interest was in the parent's and child's internal worlds and behaviors, both as observed and as subjectively described. Of the constructs we were intending to code, we wanted scales that would measure constructs that were meaningfully related to understanding adaptive and maladaptive aspects of parent-child functioning and relationships. That is, the constructs would be relevant to the identification of potential foci of parent-child treatment interventions and would also be relevant to the measurement of treatment outcome.

We also considered it important that the procedure and coding system would be pragmatic and educational for raters. That is, we did not want the activities to be unreasonably stressful or lengthy for the participants, examiners, or raters. Furthermore, we wanted the process of learning the coding system to be beneficial to raters, improving the raters' own capacity to interact in healthy ways with children.

Observing parent-child interaction

Over the past 25 years researchers have utilized many procedures and coding systems to assess parent-child interaction. Of those in use, some focus solely on behaviors rather than on representations (e.g., Kogan & Gordon; 1975; Robinson & Eyberg, 1981) or emphasize behaviors over representations (e.g., Clark, 1985). There are also instruments designed to focus on only one type of childhood disorder (e.g., Robinson & Eyberg, 1981). Several instruments collect data on the child and exclude the parent (e.g., Bretherton, Ridgeway, & Cassidy, 1990; Buchsbaum & Emde, 1990; Zahn-Waxler et al., 1994). Some analyses of interaction do not claim reliability or validity (e.g., Ariel, 1992). Many instruments are designed for children under the age of 36 months and are not intended to elicit information about representations (e.g., Crittenden, 1982).

After reviewing these procedures and coding systems, we asked ourselves the question, "How could we elicit additional information about the parent's and child's representations, behaviors, interaction, and subjective experiences?" What we have developed in response to this query is a procedure called the Parent-Child Interaction Assessment (PCIA) and the beginning of a coding system to measure facets of parent-child functioning and interaction.

The PCIA involves videotaping parents and children ages 4–10 years as they go on an imaginary trip to the zoo together. They begin with a short free-play interaction and then "play out" several scenarios with toy people, animals, and blocks. After cleaning up the toys, the parent and child are shown the videotape of their interaction. The parent and to some extent the child are each interviewed about what he or she and

the other person are doing, thinking, feeling, and wanting. The free play and scenarios are usually completed in 30 minutes, and the inquiry takes an additional 20 minutes.

PCIA design and construction

The PCIA is designed to be practical for the test administrator, the parent, and the child. For the administrator, no complicated equipment is required other than the toys and a stopwatch. Setup is easy and space requirements are minimal. A video camera, tripod, and microphones are needed for recording.

We decided on organizing the activities around a trip to the zoo because of its interest to children and the high likelihood that children have been exposed to zoo trips in person or through television. To add realism to the experience, we wrote the scenarios based on events that could actually occur during the beginning, middle, and end of a trip to a zoo.

PCIA tasks

The PCIA begins with the parent and child being seated around a table in a room that is free from distraction. On the table are a predetermined assortment of toy people, animals, and blocks. The role of the examiner is to give instructions and arrange the toys in a manner that engages the parent's and child's attention. Once the instructions are given, the examiner is quiet and responds to questions in a warm but nondirective manner.

The first task is the *Free-Play Task*. The video camera is started, and the examiner invites the participants to play with the toys. After 90 seconds the parent and child are introduced to the zoo theme by the examiner asking each to choose a toy person, one to be the child and one to be the parent. They are then asked to start building a zoo together.

What follows are a series of 15 *Co-construction Tasks*. These tasks are brief scenarios that were designed to be emotionally evocative and to pull for a range of parenting behaviors, such as involvement, nurturing, setting limits, teaching, and encouraging. Children are placed in situations that may require them to delay gratification, achieve, take risks, negotiate autonomy, receive help, compete, and be comforted. The scenarios are often as much about what we intended them to evoke as about the dyads' projections of their own concerns and issues.

The first scenario involves the parent and child arriving at the zoo. Assuming that the dyad comprises a father and a daughter named Anne, the following instruction is given: "Dad and Anne have just arrived at the zoo. Anne wants to look at the tigers and Dad wants to look at the hippos. Play out what happens together." As with all the scenarios, the parent and child are encouraged to interact for 90 seconds. If they finish before this period, the examiner says, "Play out what happens next."

In the next two scenarios, a competition is held and the parent and child are asked to race to a tree and back. After the race, they are then shown an entrance to a scary tunnel. They are told that they are entering the tunnel and asked to play out what happens. The next four scenarios involve activities such as the child feeding the animals, the child falling and hurting her arm, the two of them having lunch together, and the child being asked to wait while the dad talks to his friend.

The following two scenarios involve the child climbing up on a high rock while the parent character is placed facing the other way. The examiner says, "When Dad's back is turned, Anne has climbed on top of the high rock. Play out what happens together." Next, the parent and child are placed on opposite sides of the zoo. The child is lost; the participants are asked to complete this story.

In the last few scenes in the trip to the zoo, a stranger approaches the parent and child and they play out what happens. Next, the examiner creates a seesaw with two of the wooden blocks. The dyad is told that the parent promised that the child could play on the seesaw, but now it is time to leave the zoo.

What follows is the child telling the parent that she has learned the names of three new animals, and the examiner asks, "What does Dad think of that?" Nearing the end of the zoo trip, the parent and child complete the gift shop scenario in which they are instructed to enter a gift shop and are told that the child wants to buy a toy but the parent does not want to spend the money. In the second-to-last scenario, the child wants to stay in the zoo and the parent wants to leave the zoo. Finally, they both leave the zoo, but the child has lost a toy and wants to go back to find it. The parent and child then complete the *Clear-up Task* by putting away the toys.

The final phase of the PCIA is the *Inquiry*. The Inquiry for a preschool child begins by reviewing pictures of mad, sad, glad, and scared faces. Older children are not shown the pictures. The child is then shown selections from the videotape. The videotape is paused, and the child is asked a series of questions, such as "What is happening here?" "What are you and your dad thinking about?" "What are you and your dad feeling?" and "What do you want from your dad?" After the child's Inquiry, selections from the videotape are shown to the parent. While the videotape is paused, the parent is asked questions about what he or she and the child are doing, thinking, feeling, and wanting.

Applications

The PCIA is designed for researchers who need a standardized dyadic activity to investigate their particular interests. Our goal is to develop

scales of parent functioning, child functioning, and dyadic functioning. Toward this end, we have begun by developing measures of parental attunement and child aggression. Our measure of parental attunement is outlined here to provide an example of how a coding system can be applied to the PCIA. First, the concepts of attunement and empathy will be briefly introduced.

The constructs of attunement and empathy are related and sometimes used interchangeably. For the most part, empathy refers to the capacity of a person to understand what another person is thinking and feeling. Attunement involves this empathic process but adds components of action and adjustment. The attuned parent not only understands what the child is thinking and feeling but also adjusts his or her behavior in concert with the child's developmental needs and limitations.

Although no construct can provide a measure of good or bad parenting, we consider attunement to be a central ingredient of effective parenting. Breakdowns in attunement have been associated with child neglect and abuse. Rosenstein (1995) demonstrated that low parental empathy was associated with physical child abuse, regardless of the level of parent-child stress. Kropp and Haynes (1987) found that abusive mothers were more likely than nonabusive mothers to incorrectly identify specific emotional signals and label negative affect as positive affect.

The attuned parent makes the requisite behavioral adjustments to enable the relationship to be fulfilling for both partners. Both Kohut and Stern view attunement as involving the parent's capacity to put himself or herself into the life of another person and to behave in a way that is related to this perception of the other person. Kohut, Stepansky, and Goldberg (1984) state:

The best definition of empathy ... is that it is the capacity to think and feel oneself into the inner life of another person ... [For example,] the baby is anxious and the mother experiences a taste of the baby's anxiety; she picks up the baby and holds it close. As a result of this sequence, the baby feels simultaneously understood and calmed because the mother has experienced as an empathic signal not the baby's total anxiety but only a diminished version of it. (pp. 82-83)

Kohut and colleagues (1984) believed that the parent with limited empathic ability might create a child who has an impoverished psychic organization and an inability to be empathic. They provided the example of a parent who was panic-stricken by her baby's anxiety. By walling herself off from the baby, the mother deprived the baby of the beneficial effect of merging with her while the mother returned from experiencing mild anxiety to calmness.

Stern's (1985) definition of attunement is similar. In *The Interpersonal World of the Infant*, he wrote:

For there to be an intersubjective exchange about affect, then, strict imitation alone won't do. In fact, several processes must take place. First, the parent must be able to read the infant's feeling state from the infant's overt behavior. Second, the parent must perform some behavior that is not a strict imitation but nonetheless corresponds in some way to the infant's overt behavior. Third, the infant must be able to read this corresponding parental response as having to do with the infant's own original feeling experience and not just imitating the infant's behavior. It is only in the presence of these three conditions that feeling states within one person can be knowable to another and that they can both sense, without using language, that the transaction has occurred. (p. 139)

Kohut and Stern view empathic attunement as a construct that is rooted in the ongoing reciprocal adjustments that occur between parent and child. This process involves the parent's reading of the infant's cues, the parent's actions in relation to the child, and the infant's reading of the parent's actions as significant to himself or herself.

The Parental Attunement Scale (PAS; Holigrocki, Frieswyk, Kaminski, Betan, Katsavdakis, & Fantz, 1999) items were developed by the following method: After reviewing the literature on attunement, our team developed a definition of attunement that captures the essence of how this construct has been employed. The following definition provided us with a guiding rationale for developing our pool of attunement items:

Parental attunement refers to the parent's active attempt to (1) understand the child's internal states and (2) respond to the child's initiatives. Such actions should help the child engage in activities in keeping with his or her developmental needs and limitations. (Holigrocki, Frieswyk, Kaminski, Betan, et al., 1999, p. 2)

Over the course of several months, PCIA tapes were viewed for the purpose of developing initial behavioral anchors for the attunement construct. Items were developed from meetings with child psychiatrists, child psychologists, and child psychoanalysts who were asked to create items they believed would measure attunement within the context of the PCIA scenarios. Many items were reversed in order to provide a balance of positive and negative items. New PCIA data were collected and these videotapes were rated by three raters who worked independently, then

sought consensus on each item. Items were fine-tuned to minimize overlap with other items and to maximize agreement among raters.

The PAS is a 30-item scale that trained raters complete while viewing the PCIA videotapes. Each item is rated on a 7-point Likert scale that ranges from "never" to "always." One item, for example, reads "Makes an effort to listen to and understand the child." The items are divided into five categories: (1) understanding, (2) promoting initiatives, (3) collaboration, (4) flexibility, and (5) synchrony. *Understanding* refers to the parent's attempts to listen to the child, ask the child about his or her thoughts and feelings, and anticipate the child's needs. *Promoting initiatives* refers to the parent's efforts to praise or encourage the child for engaging in an activity that is based on the child's own agenda. *Collaboration* refers to the parent's ability to share the play space and work alongside the child in a facilitating manner. *Flexibility* refers to the parent's ability to use an array of strategies to engage the child. *Synchrony* refers to the parent's capacity to emotionally relate with the child in a way that complements the child's affective and cognitive state.

A test of the psychometric properties of the PAS is underway. This study involves an assessment of the scale's interrater reliability, internal consistency, construct validity, and concurrent validity. Construct validity is being assessed by testing whether the PAS is positively correlated with the Balanced Emotional Empathy Scale (Mehrabian, 1996) and negatively correlated with the parenting problems identified on the Adult-Adolescent Parenting Scale (Bavolek, 1984) and Child Abuse Potential Inventory (Milner, 1990). The PAS's ability to differentiate between parents at high risk or low risk for child abuse will provide an index of concurrent validity.

Although the PAS is designed to assess *parental* attunement, the child's functioning can be expected to influence the parent's performance. Each parent brings to the PCIA his or her own manner of organizing experiences and is influenced by the real constraints and nature of the child. For example, if a parent's attunement is being influenced by a child's verbal limitations, then this influence is not thought to be "measurement error." Rather, the task is to measure how the parent attunes to the child's current state in the PCIA context.

Case examples

To illustrate the PCIA, videotape excerpts of two dyads completing the same scenario follow. No attempt will be made to provide a description of the dyads' performance in other parts of the PCIA other than to say that these excerpts provide good examples of themes and activities that occur across scenarios.

In the PCIA, the parent may or may not collaborate with the child. Scenarios may involve rich dyadic interactions, opportunities to obstruct the other, or the chance to play in parallel. When reading these excerpts, think of the affective tone that is evoked and the manner in which the parent and child are working together.

Ms. J is a Caucasian, married, middle-socioeconomic status mother in her late 20s, and her daughter, Jill, is 6 years and 1 month old. They were videotaped as they made the following exchange:

"Jill and mom are on opposite sides of the zoo. Jill is lost. Play out what happens," says the examiner as she puts the mother and child characters on opposite sides of the zoo.

The parent and child are both still and then the mother says, "Oh-oh."

"Get the mom and go over here," says the child, touching the mother character and motioning toward her character.

"I don't know where you are to come find you," says the parent, who begins calling, "Jill? Jill? Jill?" The parent moves her character toward the girl's character.

The child watches and responds in kind. She moves her character while calling "Mom? Mom? Mom?" The characters collide with each other.

"Ohh!" says the child.

"Ah! There you are," exclaims the parent, smiling.

"I was lost!" exclaims the child.

In the commotion a toy drops to the floor.

"Oh no," says the parent.

"I'll get it for you," says the girl, reaching under the table to retrieve the toy.

"You do have long arms, don't you?" says the parent, and the child laughs.

The child returns the character to the table and is smiling.

"You think we should stay together now?" asks the parent.

"Yah, let's try to at least," replies the daughter. (Source: Dyad 31W, "Lost" scenario)

The following excerpt is from a videotape of Ms. T and Tim. Ms. T is a married, Caucasian, middle-socioeconomic status mother in her early 30s. Her son is 4 years and 11 months old:

"Mom and Tim are on opposite sides of the zoo. Tim is lost. Play out what happens," says the examiner as she puts the mother and child characters on opposite sides of the zoo.

"Oh my gosh. Tim is lost at the zoo," says the parent.

"How come you're on that circle?" asks Tim as he notices marks on the zoo board.

"Because that's the little parent thing, that's the little boy thing," replies the parent. "Okay, where are you?" asks the parent.

The child points to his character.

"You're clear over there," says the parent.

"Play you can see me right here," says the child, pointing near his character.

"Oh my gosh," says the parent, moving her character around the board. "I'm running all around. I'm looking. I'm looking. I come over here. I don't see you over there. I come to the lions. You're right there playing. You don't think anything about it. Mommy's going, 'Oh no, oh no.'"

"Well look over here, then," says the child, again pointing near his character.

"I look at the hippos. Well see, I'm on this side of the hippos," says the parent.

"And I'm this side," says the child, pointing to his character.

"You're on the other side. I don't see you, so I'll have to find a worker. Help, help, my little boy is lost, my little boy is somewhere in the zoo, please help me."

The child moves his character to another part of the zoo while singing, "Do de do de do do do de do."

"Where you gonna go? See, you're still not with mommy," says the parent.

The child continues singing and moving his character away from the parent.

"Mommy found a worker. We're starting to look all over. They've announced your name over the place and somebody found you. Mommy finds you." The parent puts her character next to his.

"And I lose you!" says the child, picking up his character and moving it away.

"No, come on," says the parent, grabbing the child's figure.

The child starts jumping the figure around the zoo saying, "Eep, eep, eep."

The parent takes child's character and tries to put it next to her character. (Source: Dyad 63W, "Lost" scenario)

Both Ms. J and Ms. T are concerned about their children being lost, but their approaches to this problem differ markedly. With the first dyad, Jill takes the lead by encouraging her mother to begin the search. Ms. J starts calling for Jill and the child echoes her efforts. They both

work together, and when they are reunited, they express through their "Ohh" and "Ah" a combination of relief and excitement. When a toy falls to the floor, the mother comments on the girl's long reach. The scenario ends with both of them deciding to try to stay together.

In the second excerpt, Ms. T begins the search for her child. Her child repeatedly points to where he is and tells her where to look. Ms. T does not see him, then finds him by the lions, only to lose him again. She elicits the help of a worker and arranges to have an announcement made. The child now actively avoids being found, saying, "And I lose you!"

From the standpoint of parental attunement, Ms. J makes efforts to understand and listen to what Jill needs. She *collaborates* with Jill and *promotes her initiatives*, such as when she comments on her long reach when Jill returns the toy to the table. Emotionally, she is in *synchrony* with her daughter. Ms. T, however, does not demonstrate the *collaboration* and *synchrony* of Ms. J. She seems to be carrying out her own agenda of accumulating resources for her search for her lost child who is "right there playing" and does not "think anything about" her efforts. The child is an observer and Ms. T neither hears nor heeds his efforts to help. At the end of the scenario, Tim plays the role she has cast for him, that of the child who is oblivious and disregarding of her needs.

Ms. J and Jill are like players on a well-functioning team. They establish a goal and work together toward meeting that goal. Ms. T and Tim do not bring this shared meaning to the task; their efforts are sometimes confused and at odds with one another.

PCIA as an assessment instrument

Although methods for recording and scoring data about the internal representations of PCIA subjects have not been finalized, the following discussion helps illustrate the utility of using the PCIA as an assessment tool. It is important to note that the preceding case interpretations were formulated by two of the authors (R.H., S.F.) while blind to the risk-status and background data on these demographically similar dyads. Nevertheless, the 30-minute sample of parent-child interaction led to descriptions that are consistent with empirical data collected by the other author (P.K.).

As determined by the Child Abuse Potential Inventory (CAP; Milner, 1990), Ms. J and Jill are at low risk for severe parent-child relational problems such as physical child abuse. Ms. J reported no history of childhood trauma on the Child Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). Furthermore, neither she nor her daughter had clinically significant elevations on the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, 1994) or the Child Behavior Check-

list for Ages 4-18 (CBCL/4-18; Achenbach, 1991), respectively. Jill's daycare teacher confirmed Ms. J's assessment of Jill's behavior.

During the Inquiry phase of the PCIA, Ms. J and Jill were each able to label their own and the other person's thoughts and feelings. Jill was able to generate a clear narrative about the zoo trip. She described the mother and the daughter characters as having feelings that ranged from happy and sad to scared and angry. Jill was also able to imagine the child and the parent as having different reactions to the same scenario. For example, during the "lost toy" scenario, Jill described the girl as feeling sad about the loss while the mother was angry "because her little girl wasn't doing what she was supposed to do" (Source: Dyad 31W, Inquiry).

Ms. J's comments during the Inquiry support the notion that she views her daughter and their relationship positively. She talked about Jill's increasing self-confidence and independence. Ms. J also spontaneously empathized with her daughter's disappointment related to a scenario that involved a parent breaking a promise. She recalled an instance when that had happened in real life and how her daughter had reacted (Source: Dyad 31W, Inquiry).

The test data for Ms. T and Tim indicate a dyad at high risk for parent-child relational problems. Ms. T's CAP scores indicate she has interpersonal and personal characteristics that are similar to characteristics of known physical child abusers (Milner, 1990). Her CTQ scales were not significantly elevated, although the validity of that finding is questionable, given her endorsement of items designed to detect minimization and denial. Ms. T's MCMI-III had a clinically significant elevation on the Dysthymia subscale (Millon, 1994), and Tim's Delinquent Behavior subscale on the CBCL/4-18 (Achenbach, 1991) was in the borderline clinical range. Finally, both his mother and his preschool teacher describe Tim as "unusually anxious" and "hyperactive."

During the Inquiry phase, Tim was not interested in watching the video he had just made. He often shrugged when asked about the feelings of either character. Although Tim never labeled his or the boy character's feelings, in response to one scenario he stated that his mother "was mad" (Source: Dyad 63W, Inquiry).

Ms. T seemed to lose sight of the fact that the zoo trip was merely play and that Tim had not really done the things his character had done. Instead, she reported that Tim is "too accident-prone" and "always getting hurt and demanding too much attention" (Source: Dyad 63W, Inquiry).

Current work

We are currently applying the PCIA to study the relationship between behavioral attunement and "physiological attunement." It would be expected that an attuned parent's physiological arousal states should be correlated with that of the child's states. For example, when a child is physiologically aroused because of being tense and upset, the parent would be expected to show signs of arousal as well.

Although few studies have monitored physiological variables in the parent and child during parent-child interaction, there has been some support for a physiological attunement construct (Ainsworth, Blehar, Waters, & Wall, 1978). Donovan and Leavitt (1985) used physiological measures to study the attentional processing of securely and insecurely attached mother-infant dyads in the Strange Situation. They found that the physiological response patterns of the mothers of securely attached infants paralleled those of their infants. That is, in securely attached dyads, the mother and child exhibited heart rate deceleration to the stranger's entrance and the stranger's approach toward the infant. Mothers of insecurely attached infants failed to show consistency of response to the stranger's entrance and to her approach. During separation, heart rate was elevated in both securely attached infants and insecurely attached infants.

The PCIA was administered to parent-child dyads while monitoring skin conductance levels of each of the participants (Kaminski, Hochstetler, Ianacone, Novak, & Minnick, 1999; Kaminski, Ianacone, Hochstetler, Minnick, & Novak, 1998). In a pilot study, researchers found significantly different arousal patterns in low-risk and high-risk parent-child dyads. Dyads at low risk for abuse demonstrated positively correlated arousal patterns. That is, the parent and child's arousal varied together. As the parent's skin conductance level increased or decreased, so did the child's. Conversely, dyads at high risk for abuse demonstrated negatively correlated arousal patterns. These researchers also found that the children from the high-risk dyads had significantly higher or lower electrodermal activity than children from low-risk dyads.

Work is currently under way to test whether Kaminski and colleagues' (1998) findings can be replicated with a larger sample of high-risk and low-risk dyads. In addition to electrodermal activity, vagal tone is also being measured. Tests are also being carried out to assess the relationship between physiological and behavioral attunement as measured by the PAS.

Kaminski, Hochstetler, Holigrocki, Frieswyk, and Fantz (1999) have also begun work on the Child Aggression Scale (CAS), which will differ-

entiate between Crick, Casas, and Mosher's (1997) constructs of overt and relational aggression. One application of the CAS will be testing the hypothesis that low levels of parental attunement will be correlated with high levels of child aggression. The psychometric properties of the CAS are currently being established. Researchers are assessing the scale's construct validity by testing whether the CAS is positively correlated with scales related to aggression on the CBCL/4-18 (Achenbach, 1991), Revised Behavior Problem Checklist (RBPC; Quay & Peterson, 1996), and Preschool and Kindergarten Behavior Scales (PKBS; Merrell, 1994). A negative correlation is expected with the RBPC Anxiety-Withdrawal Scale and the PKBS Social-Withdrawal and Social-Skills scales. Concurrent validity and interrater reliability studies are also under way.

Conclusion

We will continue to develop scales for the PCIA that measure facets of parent-child interaction as a means of identifying behaviors and patterns that inoculate against, perpetuate, or escalate a dyad's risk for relational problems. It is our hope that other clinicians and researchers will join us in our efforts to refine this new procedure and to apply the PCIA to areas of clinical interest. Of particular interest to us are applications that test hypotheses related to the prevention of child abuse and to testing the efficacy of psychoanalytically informed treatments.

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A self-report measure to screen for trauma history and its application to women in inpatient treatment for trauma-related disorders

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The authors developed the Trauma History Screen to screen for potentially traumatic events in women admitted for specialized treatment of trauma-related disorders. The questionnaire contains 14 items assessing commonly occurring traumas, and respondents indicate the frequency with which they have experienced the traumas as well as the age at which the trauma occurred. Six items pertaining to interpersonal trauma form an internally consistent subscale. The authors present normative data for a sample of 102 traumatized patients as well as correlations with scores from the Childhood Trauma Questionnaire, the Impact of Event Scale, and the Dissociative Experiences Scale. The findings provide some indication of convergent validity for the Trauma History Screen, and the authors recommend using the questionnaire to alert clinicians to trauma that should be explored more fully in the context of a clinical relationship. (Bulletin of the Menninger Clinic, 63[3], 429-442)

Over the course of several years, we have been developing and refining a battery of self-report tests for the clinical assessment of women referred for specialized treatment of severe trauma-related disorders. Concomitant with providing diagnostic evaluations for the purpose of treatment planning, we have been developing a database of test results. This database has contributed to diagnostic assessment by providing local norms in relation to which individual differences within this patient population stand out.

In addition, the database has provided an opportunity to conduct research that has enabled us better to understand various facets of psy-

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