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**SPECIAL SECTION COMMENTARY**

## Emotional availability: Research advances and theoretical questions

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### Abstract

The commentary opens by highlighting the contribution of the Emotional Availability Scales (EAS) in providing developmental researchers with a clinically sensitive and reliable assessment of the emotional quality of caregiver–child interactions that takes into consideration their coregulated nature. The numerous studies that have used the EAS attest to their usefulness and to the way they balance complexity and attention to emotional nuances with clarity. Several issues with regard to the EAS are discussed subsequently. First, I propose that looking at *patterns* of the EA scales might be a way to capture the quality of each dyad’s emotional dialogue. Second, I suggest that the description of attachment research as concerned almost exclusively with the regulation of distress is inaccurate, in light of Ainsworth’s broad assessment of naturalistic home observations. Third, I raise the possibility that additional specialized coding systems beyond the EAS may be needed for predicting certain specific psychopathological outcomes (e.g., disorganized attachment). Fourth, I propose that it is important to explore cross-culturally the meaning of the behaviors on which the EAS focus, rather than assume cross-cultural equivalence. Fifth and finally, I point out the importance of placing the EAS in the context of the existing literature on early intervention and treatment.

The Special Section of this issue of *Development and Psychopathology* highlights the Emotional Availability Scales (EAS) and illustrates the usefulness of these scales in a range of studies spanning different populations, ages, and research questions. Together with the previous studies that have used these scales, this Special Section underscores the contribution of the EAS to the study of mother–child interaction as a dyadic system, and to the measurement of the emotional exchanges between caregiver and child. The quality of caregiver–child interactions, whether supportive and matched to the child’s emotional states or constrained or even distorted, appears to be captured by the EAS. The research findings suggest that the EAS is linked to the dyads’ history, the current functioning and well-being of each of the partners, and the future pathways the dyad may take.

The EAS have several important strengths, and I open my Commentary by presenting these strengths and placing them in a broader theoretical context. I then present several issues that arise when EA research is viewed from a developmental psychopathology perspective (Cicchetti & Toth, 2009) and suggest a few directions for additional conceptual and empirical work.

### The EAS as an Assessment of the Caregiver–Child Emotional Dialogue

Like other writers in the field (e.g., Beebe & Lachman, 2002; Bowlby, 1988; Tronick, 1989), the developers of the EAS stress the importance of well-regulated and attuned emotional communication for fostering optimal growth in children during early development and in subsequent years. Biringen and Easterbrooks (2012) describe emotional availability as the “connective tissue of healthy socioemotional development,” emphasizing the importance of the emotional dialogue between caregiver and child and the degree to which each is responsive to the other’s signals in a cyclical, dyadic fashion. In particular, the capacity of the parent to tune into the child’s inner emotional experience and respond flexibly and in a regulated and regulating way to a wide range of emotional signals is given emphasis. Brazelton and Cramer (1989) describe the history of the field as moving from “Deprivation Models” that described the pervasive developmental damage children suffer when they are raised in contexts devoid of opportunities for deep human contact, to “Dialogue Models” that describe the importance of early caregiver–child interactions and the psychological nutrients they include. The EAS represents an effective operationalization of this dialogue as described by the early theorists and by those that followed in their footsteps.

All dialogue models, and the EA scales are no exception, point out to the reciprocal, transactional nature of early interactions. The caregiver and child coregulate one another by

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continuously shaping each other's response while at the same time being shaped by the other's response (Beebe & Lachman, 2002; Fogel, 1993). Over time dyads develop their own characteristic ways of communicating—their “ways of being” with each other (Stern, 1985)—and these patterns tend to remain stable. Therefore, each dyad's history is reflected in the present interaction, because partners bring to their encounter nuanced expectations regarding the self and the other that have evolved over time. These basic characteristics of early interactions, shared by many observers and theorists, are also central in the EAS. In particular, a core feature of the EAS is their dyadic nature—the idea that dimensions such as maternal sensitivity cannot be assessed independent of the child's response to the mother's behavior. Thus, we do not ask whether the mother is sensitive in general, but whether she is sensitive to this particular child in this particular context. In sum, an important strength of the EAS is that they reflect current research trends that take into consideration the transactional, coregulated nature of caregiver–child interactions.

The EAS, by including four dimensions of maternal behavior and two of child behavior reflect the multidimensionality of caregiver–child emotional interactions. This is important because different observational contexts may elicit different behaviors from both mothers and children, and multiple scales allow for a more full portrayal of the dyad. For example, in teaching tasks the maternal structuring scale may gain particular salience, and in a cleanup task nonintrusion may become salient. The child scales of responsiveness and involvement also capture important and distinct dimensions in children's behavior. Not only do these scales capture important variation within typically developing children (van den Dries, Juffer, van IJzendoorn, Bakermans-Kranenburg, & Allink, 2012), but these scales are also particularly useful in capturing the interactional deficits of atypically developing children, such as children with autism (e.g., Dolev, Oppenheim, Koren-Karie, & Yirmiya, 2009).

The developmental field has increasingly acknowledged the importance of relationships as powerful contexts for understanding both positive growth and development as well as risk processes, and the EA scales have made an important contribution to our ability to assess relational qualities in caregiver–child interactions. It is significant that, while maintaining clinical sensitivity to the subtleties of parent–child interactions, the EAS are also well defined and clearly anchored. They have been effectively taught in many laboratories and research groups internationally, and good interrater reliability has been consistently reported. This is not a small feat, and the numerous studies that have used the EAS attest not only to their usefulness in capturing important aspects of parent–child interaction but also to the way they balance complexity and attention to emotional nuances with clarity.

### **EA as a Dyadic Measure: Is It Possible to Identify EA Patterns?**

As mentioned above, the multidimensional structure of the EAS is an important feature and strength of the coding sys-

tem. However, multiple scales raise issues of data reduction as well as the meaning of the scales when taken together, and these issues are discussed next.

All users of the EAS report very high intercorrelations among the scales, which is not surprising because the scales are all applied on the same observation and because there is built-in dependency among the scales; for example, a parent cannot receive a high sensitivity score while the child receives a low responsiveness score. Researchers have struggled how to best deal with the situation. Some run analyses on each scale separately, but this creates a somewhat inflated picture of multiple results that are usually very similar because the scales are so highly correlated. Others insert all the scales into one regression equation, but here issues of multicollinearity arise. Another possibility is to create a parent aggregate and child aggregate. The advantage here is the reduction of the multiple scales into two measures that, although highly intercorrelated, are still conceptually distinct. Still others solve the problem by using only the parental scales (or aggregate) or the child scales.

Underlying this statistical–methodological issue is perhaps a more important issue regarding the construct validity of EA. The definition of EA as presented by the developers of the scales and the authors in this special issue is general: the “connective tissue of healthy emotional development,” “attuned and responsive emotional dialogue,” “effective regulation of parent–child interaction” are but some of the definitions used. Beyond these important, but very broad definitions EA is primarily described by reducing it to its components, namely, the six EA scales. This raises the question: what does the EA construct include beyond what the scales describe? This is a crucial issue because there are many coding systems that describe the emotional quality of parent–child interaction, so that the claim that there is something in the EAS that goes beyond an empirically useful coding system needs support.

At one level, more work is needed to define what is meant by emotional availability as a *dyadic* term. Is the term truly applicable to the dyad, that is, to both mother and child, or is it more appropriate for characterizing caregivers? The roots of this concept in the work of Mahler, Pine, and Berman (1975) and Emde (1980) focus uniquely on the parent (and the therapist, in Emde's case), and careful reading of the papers in this Special Section reveals that most often the term is applied to mothers or caregivers. This makes sense: it seems more appropriate to talk about a parent, caregiver, or therapist being emotionally available to the child (or client) than the other way around. Children's responsiveness to the parent, acceptance of the parents suggestions and initiation of positive interaction certainly have a powerful effect on the quality of the interaction, on the parent's behavior, and even on the parent's internal experience as a “good” parent, but are these qualities best characterized as children's “emotional availability”?

Perhaps one way to resolve this issue is to look at *patterns* that are formed when all six scales are considered jointly. Following an organizational perspective (Sroufe & Waters,

1977), it is possible to distinguish between a dimensional level of analysis, such as that captured by the EAS, and a higher order, holistic level of analysis that is based on the patterning of the scales. One model for these two levels of analysis can be that of the Strange Situation procedure (Ainsworth, Blehar, Waters, & Wall, 1978), in which the interactive scales applied to each of the episodes that comprise the Strange Situation provide the basis for classifying infants into attachment categories (and subcategories). Applied to the EAS, patterns may capture specific configurations of the EA scales that together can describe the way the caregiver and child engage emotionally.

One can imagine several such patterns, and by way of illustration I will focus on patterns that reflect low emotional availability. For example, one pattern can involve insensitive, intrusive, and hostile maternal behavior coupled with a child who does not respond and who does not involve the mother. A second pattern may involve similar maternal behavior coupled with a highly resistant child. A third and fourth pattern may involve an insensitive but nonintrusive and nonhostile, passive, and distant mother coupled with children of one of the two types described above: either passive, nonresponsive, and noninvolving or highly resistant. In fact, the EAS already include the distinctions between various types of maternal and child behaviors on the lower spectra of the scales, but these are collapsed in order to create linear scales, and important information may be lost. Adding the proposed level of *patterns* of caregiver–child emotional interaction can make use of this lost information.

A pattern approach may also add empirical power to the coding system. It is quite possible that different antecedents, correlates, and outcomes can be found for each of the patterns, and that these differences may be obscured when the scales are considered separately or averaged in multivariate statistical analyses. Furthermore, if patterns are revealed and distinct correlates are found this can feed back to the theorizing regarding EA and contribute to its elaboration.

## EA and Attachment

The EAS is strongly rooted in attachment theory and research, and much of the writing regarding the EAS uses attachment theory and research as a frame of reference. For example, the main source of validity cited for the EAS is in its associations with the infants' attachment classifications (Biringen & Easterbrooks, 2012), and the EA scale referred to most frequently, maternal sensitivity, is based on the sensitivity scale developed by Ainsworth, Bell, and Stayton (1974). Although these roots are acknowledged, there is also a strong emphasis on how the EA scales are different from the Ainsworth scales and how the EA concept is broader than the attachment concept. However, these statements are based on inaccurate depictions of attachment theory and research.

We turn first to the links between the EAS and the Strange Situation. These links are brought as evidence for the validity of the EAS, which they certainly are. However,

what is missing is the mentioning that the EA–attachment links are a replication of the classic findings of Ainsworth and many other attachment researchers linking mother–child interaction, and particularly maternal sensitivity during home observations, with attachment (Belsky, 1999). Not only was maternal sensitivity (and mothers' caregiving behavior in general) a central focus of Ainsworth's work, but the Strange Situation also gained its validity as a measure of attachment primarily because it appeared to capture, in a short and specially choreographed lab observation, the quality of the child's attachment to the mother and was strongly associated with maternal sensitivity during naturalistic home observations. These home observations and the original sensitivity links are seldom if ever mentioned in the writing about the EAS. This does not take away from the importance of the links between the EAS and the Strange Situation, but places these findings in a broader and historical context.

Recognizing the central place of the extensive home observations Ainsworth and others conducted is also important in order to correct the misperception that attachment theory and research focus exclusively on the regulation of distress. This may be true if attachment research is reduced to Strange Situation research. This is a common misperception (Waters & Cummings, 2000) that sets the stage for viewing coding systems such as the EAS as broader. However, Ainsworth's pioneering work placed a very strong emphasis on naturalistically occurring, day to day interactions in a variety of settings, including face to face interaction (Blehar, Lieberman, & Ainsworth, 1974), exploration (Ainsworth & Bell, 1970), and distress. The observations that were the basis of her research were very similar to those used to code EA, although they were typically much longer. Therefore, the more appropriate parallel to the EAS, at least with regard to the maternal scales, are the home observations conducted by Ainsworth and not the Strange Situation.

Further testimony to the importance attachment researchers assign to naturalistic caregiver–child interactions that may or may not include distress is the large body of attachment research using the Attachment Q-Sort (Waters & Deane, 1985; for a review, see van IJzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004) as applied to naturalistic observations of toddlers, and the Maternal Sensitivity Q-Sort developed by Pederson and Moran (1995) to assess maternal behavior during home observations. Thus, attachment researchers have always been interested in mother–child interactions in naturalistic settings that may or may not include distress, and focused on promotion of exploration, play, and positive interaction in addition to the regulation of distress.

Looked at from this perspective, namely, the parallel between the EAS and Ainsworth's home observations, it is interesting to note that sensitivity was only one of four scales used by Ainsworth. The other, perhaps lesser known scales were cooperation versus interference with baby's ongoing behavior, physical and psychological availability versus ignoring and neglecting, and acceptance versus rejection of the ba-

by's needs (Ainsworth et al., 1974). Thus, some of the themes captured by the EAS are forecasted in Ainsworth's scales. For example, issues of intrusiveness are captured in the Cooperation Scale, hostility captured in the Rejection Scale, and so forth. This is not to say that there is a one to one mapping between the scales or that the EAS have not made their own contribution, but to emphasize similarities in the ways maternal caregiving is viewed in both systems.

The Sensitivity Scale used in the EAS is described as adding to Ainsworth's original sensitivity scale a dyadic focus, an emphasis on affect and particularly positive affect, and being less "behavioral." A deeper look into Ainsworth's original scales reveals that the differences between the scales are not as profound as described, however. It is obvious from Ainsworth's description of sensitivity (Ainsworth, Bell, & Stayton, 1974) that sensitivity is only possible when the mother adjusts her responses to her infant's emotional state. This is clear from her description of the sensitive mother as "empathic" and one who "sees things from the child's point of view." Ainsworth emphasizes that awareness and correct reading of signals is not enough, and that they are only sensitive when coupled with empathy. She further describes sensitivity as involving the quality of mothers' responses and their appropriateness to the baby's communications and the situation. Thus, although the EAS have added their imprint it seems more accurate to describe the scales (at least when the maternal scales are concerned) as representing an evolution of the original Ainsworth scales rather than a quantum addition to them.

## EA and Psychopathology

There is ample evidence to support the notion that the difficulties in parent-child interactions, and particularly constrained, dysregulated, emotional interactions that do not match the child's emotional and developmental needs, are associated with pathways that may lead to psychopathology (Zeanah & Doyle-Zeanah, 2009). The research involving the EAS contributes to the body of research that supports this general premise, as several of the papers in this Special Section and prior EA research illustrate. Going beyond these empirical links, however, raises interesting theoretical questions.

It is possible that suboptimal EA scores constitute a risk factor for psychopathology that will produce negative outcomes only in the presence of additional risk factors. This means that simple bivariate associations between EA and psychopathology measures *may* or *may not* be found, depending on the presence of additional risk factors, and that only a multivariate approach may reveal the expected links. An additional possibility is that the EAS, which were developed on normative samples, may not capture aspects of mother-child interaction that are particularly relevant for certain kinds of negative outcomes, and that additional specialized coding systems may be needed. For example, it is possible that in order to identify antecedents for disorganized attachment a coding system designed specifically for this purpose, such as the Atypical Maternal Behavior Instrument of Assessment

and Classification (AMBIANCE; Lyons-Ruth, Bronfman, & Parsons, 1999), is needed. Although AMBIANCE infancy scores and middle childhood EAS are longitudinally related (Easterbrooks, Bureau, & Lyons-Ruth, 2012) and in some cases EAS was found to be associated with disorganized attachment (see review in Biringen & Easterbrooks, 2012), in other cases this was not the case. It is quite possible that the AMBIANCE, because it was developed for this purpose, is more effective in uncovering antecedents of attachment disorganization (Madigan et al., 2006). Thus, although the EA scales capture important dimensions of mother-child interactions, they cannot capture all aspects, and additional codes may be needed to capture antecedents of specific psychopathological outcomes.

At a broader, conceptual level it is important to keep in mind that any associations found between disturbances in the emotional quality of children's early relationships can be because such disturbances play a *causal role* in the development of psychopathology, or because caregiver-child relationships are a particularly salient arena in which many factors that impact on the child, the caregiver, and their relationship are evident. An ecological, developmental psychopathology perspective highlights the multiple levels of analysis needed to understand risk and resilience, and the complex interplay of factors that produces successful coping or pathological outcomes. This complexity may be reflected in the emotional quality of mother-child interaction (and, therefore, in the EAS), but this does not mean that the roots of later pathology necessarily *stem* from suboptimal EA. Thus, for example, risk factors associated with children's prenatal or genetic vulnerability may be evident in children's capacity to take part in emotionally available interactions, and may diminish their responsiveness to the parent or involvement of the parent. Thus, parent-child interactions may be associated with negative developmental outcomes because processes in such interactions have an *etiological* role, but also because parent-child interactions may *reflect* risks and challenges from all levels of the system.

Finally, although the EA scales can reflect stresses and vulnerability from both within and outside the caregiver-child relationship, they can also reflect the way this relationship can *buffer* against these negative influences. Our study of young children with autism is a case in point. As is well known, children with autism have great difficulties responding to others and involving others, and these difficulties were reflected in the relatively low mean levels of the child EA scales we found (Dolev et al., 2009). However, it was striking that there was considerable variability on both the maternal and child scales, and that a considerable proportion of the children and the mothers were coded in the "good enough" range (31%–66% of children and 42%–90% of mothers, depending on the scale and the observational context). Thus, the difficulties of children with autism in responding and initiating did not necessarily mean that all children received low scores or that children's difficulties would necessarily decrease mothers' EA scores. This points to the unique contri-

bution of the EAS to capture dyadic qualities that can provide a buffer against the difficulties each of the partners may bring.

### EAS and Culture

A central tenet of the developmental psychopathology paradigm is that understanding the specific cultural niche in which the child develops is of major importance. The goals and values possessed by members of a specific group and their views regarding what constitutes a successful, mature member of the group are likely to have *profound effects* on the way adults interact with young children, the behaviors they allow, encourage, or discourage, and the meaning they attribute to children's behavior (Rogoff, 2003). There are numerous examples for how similar behaviors may have very different meanings in different cultural contexts, and this applies to nonverbal behavior as well, which is the behavior that is so important when coding EA. For example, although direct eye contact is highly valued in many Western cultures and is therefore encouraged in young children, such contact, particularly between child and adult, is considered disrespectful in other cultures. Thus, caution is needed when interpreting interactive behaviors of members of one culture within the framework of a different culture. Exploring the meanings of behaviors for members of a specific culture should become an important research question, rather than an a priori assumption. Therefore, although it is exciting that the EAS have been used by researchers in many countries and with members of various cultural groups, more work is needed before we can be confident about the system's applicability cross-culturally, and particularly about the meaning specific behaviors carry.

A good example for how the meaning of an assessment developed in the United States can be examined cross-culturally is provided in the review by van IJzendoorn and Sagi (1999) of the use of the Strange Situation in different cultures. The review involves a conceptual analysis of what we mean by the universal applicability of attachment, a review of research findings, and a conclusion regarding which aspects of attachment appear to show universal characteristics and which appear to be more contextual. This approach can provide a roadmap for the kind of work that might be useful regarding the EAS, work that may temper some of the conclusions about the use of the EAS across cultures. For example, it is not clear how we can conclude that "85% of the information" (Biringen & Easterbrooks, 2012) coded by the EAS is nonverbal, and that therefore interactions can be coded without understanding the language spoken by the caregiver and child.

It is also premature to conclude that the six EA scales "capture the affective tone of the dyadic relationship under *any set* of circumstances" (italics added). Consider the structuring and intrusiveness dimensions of the EAS as an example. Cultures vary tremendously in their conceptions regarding the role of caregivers as teachers and the preferred mode of teaching (Rogoff, 2003). Is teaching best when it is verbally mediated? Should children learn primarily by observation and imitation? To what extent should children be rewarded for successful per-

formance? This cultural variability may have important implications for what is considered optimal structuring of parent-child interactions and what is considered intrusive.

### EA and Intervention

A developmental psychopathology viewpoint calls for bidirectional links between research achievements and their applications in prevention and intervention efforts. This two-way information flow is certainly relevant when the EAS is concerned, and here a perspective that places the EAS in a larger research context may be useful as well. The EAS capture clinically relevant dimensions of caregiver-child emotional interactions (e.g., sensitivity, hostility), the very dimensions that many intervention efforts target. As such, the scales can be used to assess caregiver-child interactions before and after treatment, to help target foci for intervention, and to facilitate the translation of broad intervention goals ("improvement of parent-child interaction") into more carefully defined and specific intervention targets.

However, it is also crucial to place the EAS in the context of the existing literature on early intervention and treatment. Improving maternal caregiving behavior and the quality of parent-child interaction is central to numerous intervention and treatment approaches (e.g., Berlin, Ziv, Amaya-Jackson, & Greenberg, 2005; Sameroff, McDonough, & Rosenblum, 2004). The structure and process of such interventions is very relevant for efforts to develop new interventions designed to enhance EA. For example, interventions designed to enhance the sensitivity of day care providers have been developed (e.g., Elicker, Georgescu, & Bartsch, 2008), and it is important to build new efforts to enhance EA on existing experience and findings.

Examination of existing interventions can also clarify the boundaries of the EAS. For example, although part of sensitivity involves flexible negotiations of conflicts, the EAS were not designed to capture control and discipline issues. However, discipline and control issues are very common foci for intervention and treatment of children and parents, and from an intervention perspective the EAS need to be expanded or adapted to encompass more fully and directly such issues. Likewise, open communication between children and their parents about emotional issues is an important target for many interventions, particularly from the preschool age onward. Achieving open, flexible, coherent, and well-regulated communication about emotional issues, and in particular around difficult and/or traumatic events is a central goal for many interventions. Are the EAS the best fitting measure to assess such communication? Or are scales uniquely designed to capture this aspect of emotional communication more appropriate (e.g., Oppenheim & Koren-Karie, 2009)? These remain important questions for future research, and we do not seem to be at the point in which we can conclude with confidence that the EAS are applicable to all contexts.

In sum, the EAS have made a significant contribution by providing developmental researchers with a clinically sensi-

tive, reliable, global assessment of the emotional quality of caregiver–child interactions. The large number of studies that have used the EAS with a range of populations and research questions is truly impressive. More attention is needed

to specify, clarify, and elaborate some of the conceptual underpinnings of the EAS, and this commentary focused on these issues and suggested conceptual and methodological directions for future work.

## References

- Ainsworth, M. D. S., & Bell, S. (1970). Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation. *Child Development, 41*, 49–67.
- Ainsworth, M. D. S., Bell, S. M., & Stayton, D. J. (1974). Infant–mother attachment and social development. In M. P. Richards (Ed.), *The introduction of the child into a social world* (pp. 99–135). London: Cambridge University Press.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Beebe, B., & Lachman, F. M. (2002). *Infant research and adult treatment: Co-constructing interactions*. Hillsdale, NJ: Analytic Press.
- Belsky, J. (1999). Interactional and contextual determinants of attachment security. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 249–264). New York: Guilford Press.
- Berlin, L., Ziv, Y., Amaya-Jackson, L., & Greenberg, M. (2005). *Enhancing early attachments: Theory, research, intervention, and policy*. New York: Guilford Press.
- Biringen, Z., & Easterbrooks, A. (2012). Emotional availability: Concept, research, and window on developmental psychopathology. *Development and Psychopathology, 24*, 1–8.
- Blehar, M. C., Lieberman, A. F., & Ainsworth, M. D. S. (1977). Early face-to-face interaction and its relation to later infant–mother attachment. *Child Development, 48*, 182–194.
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge.
- Brazelton, T. B., & Cramer, B. G., (1989). *The earliest relationship: Parents, infants, and the drama of early attachment*. Reading, MA: Addison–Wesley.
- Cicchetti, D., & Toth, S. (2009). The past achievements and future promises of developmental psychopathology: The coming of age of a discipline. *Journal of Child Psychology and Psychiatry, 50*, 16–25.
- Dolev, S., Oppenheim, D., Koren-Karie, N., & Yirmiya, N. (2009). Emotional Availability in mother–child interaction: The case of children with autism spectrum disorders. *Parenting: Science and Practice, 9*, 183–197.
- Easterbrooks, M. A., Bureau, J.-F., & Lyons-Ruth, R. (2012). Developmental coherence in predictors and correlates of emotional availability in mother–child interaction: A longitudinal study from infancy to late adolescence. *Development and Psychopathology, 24*, 65–78.
- Elicker, J., Georgescu, O., & Bartsch, E. (2008). Increasing the sensitivity of infant–toddler child care providers: Applying the VIPP approach. In F. Juffer, M. J. Bakermans-Kranenburg, & M. H. van IJzendoorn (Eds.), *Promoting positive parenting: An attachment-based intervention* (pp. 155–170). Hillsdale, NJ: Erlbaum.
- Emde, R. N. (1980). Emotional availability: A reciprocal reward system for infants and parents with implications for prevention of psychosocial disorders. In P. M. Taylor (Ed.), *Parent–infant relationships* (pp. 87–115). Orlando, FL: Grune & Stratton.
- Fogel, A. (1993). *Developing through relationships: Communication, self, and culture in early infancy*. London: Harvester–Wheatsheaf.
- Lyons-Ruth, K., Bronfman, E., & Parsons, E. (1999). Atypical attachment in infancy and early childhood among children at developmental risk: Part IV. Maternal frightened, frightening, or atypical behavior and disorganized infant attachment patterns. *Monographs of the Society for Research in Child Development, 64*, 67–96.
- Mahler, M. S., Pine, F., & Berman, A. (1975). *The psychological birth of the human infant: Symbiosis and individuation*. New York: Basic Books.
- Madigan, S., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Moran, G., Pederson, D. R., & Benoit, D. (2006). Unresolved states of mind, anomalous parental behavior, and disorganized attachment: A review and meta-analysis of a transmission gap. *Attachment & Human Development, 8*, 89–111.
- Oppenheim, D., & Koren-Karie, N. (2009). Mother–child emotion dialogues: A window into the psychological secure base. In J. Quas & R. Fivush (Eds.), *Emotion and memory in development: Biological, cognitive, and social considerations* (pp. 142–165). New York: Oxford University Press.
- Pederson, D. R., & Moran, G. (1995). Appendix B. Maternal behavior Q-set. *Monographs of the Society for Research in Child Development 60*(2–3, Serial No. 244), 247–254.
- Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.
- Sameroff, A. J., McDonough, S. C., & Rosenblum, K. L. (2004). *Treating infant–parent relationship problems: Strategies for intervention*. New York: Guilford Press.
- Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development, 48*, 1184–1199.
- Stern, D. (1985). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. New York: Basic Books.
- Tronick, E. (1989). Emotions and emotional communication in infants. *American Psychologist, 44*, 112–119.
- van den Dries, L., Juffer, F., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Allink, L. R. A. (2012). Infants’ responsiveness, attachment, and discriminant friendliness after international adoption from institutions or foster care in China: Application of the Emotional Availability Scales to adoptive families. *Development and Psychopathology, 24*, 49–64.
- van IJzendoorn, M. H., & Sagi, A. (1999). Cross-cultural patterns of attachment: Universal and contextual determinants. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 713–734). New York: Guilford Press.
- van IJzendoorn, M. H., Vereijken, C. M. J. L., Bakermans-Kranenburg, M. J., & Riksen-Walraven, J. M. (2004). Assessing attachment security with the Attachment Q-Sort: Meta-analytic evidence for the validity of the observer AQS. *Child Development, 75*, 1188–1213.
- Waters, E., & Cummings, E. M. (2000). A secure base from which to explore close relationships. *Child Development, 71*, 164–172.
- Waters, E., & Deane, K. E. (1985). Defining and assessing individual differences in attachment relationships: Q-methodology and the organization of behavior in infancy and early childhood. *Monographs of the Society for Research in Child Development, 50*(1–2, Serial No. 209).
- Zeanah, C. H., & Doyle-Zeanah, P. (2009). The scope of infant mental health. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (3rd ed., pp. 5–21). New York: Guilford Press.