The Legacy of Early Attachments

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The impact of early close relationships on psychological development is one of the enduring questions of developmental psychology that is addressed by attachment theory and research. This essay evaluates what has been learned, and offers ideas for future research, by examining the origins of continuity and change in the security of attachment early in life, and its prediction of later behavior. The discussion evaluates research on the impact of changing family circumstances and quality of care on changes in attachment security, and offers new hypotheses for future study. Considering the representations (or internal working models) associated with attachment security as developing representations, the discussion proposes that (1) attachment security may be developmentally most influential when the working models with which it is associated have sufficiently matured to influence other emerging features of psychosocial functioning; (2) changes in attachment security are more likely during periods of representational advance; and (3) parent–child discourse and other relational influences shape these developing representations after infancy. Finally, other features of early parent–child relationships that develop concurrently with attachment security, including negotiating conflict and establishing cooperation, also must be considered in understanding the legacy of early attachments.

INTRODUCTION

Attachment theory has become the dominant approach to understanding early socioemotional and personality development during the past quarter-century of research. It is easy to understand why. The questions studied by attachment researchers are some of the most compelling, longstanding issues of developmental psychology. How do early experiences, particularly in close relationships, affect social and personality development? What are the central features of parenting that have these influences? What internal and external factors mediate continuity and change in socio-personality functioning early in life? A large body of research generated by attachment theory offers developmental psychologists some of their best opportunities to empirically address these questions and to consider new empirical directions based on the answers of current research.

Assessing what has been learned from this research is especially important as attachment theory develops into a more mature and broadly applicable conceptual perspective within which issues of mental health, close relationships throughout life, and representations of self and others are considered. This is because central to many of these broader applications of attachment theory are basic questions concerning how early experiences of care are relevant to later socioemotional and personality growth. In this essay, I offer four conclusions/conjectures based on current research concerning the legacy of early attachment relationships, and discuss the directions they indicate for future inquiry. They are intended to summarize much of what has been learned about the broader impact of early at-

tachment security, the questions this raises for future research, and some of the empirical dimensions of future study of these issues.

CHILDREN VARY SIGNIFICANTLY IN WHETHER EARLY ATTACHMENTS HAVE AN ENDURING IMPACT UPON THEM

Studies of continuity and change in attachment processes began with efforts to determine what was the typical consistency of attachment classifications over time. This was because earlier measures of parent–child interaction had such poor stability, and researchers needed to test theoretical predictions from an organizational view of early development (Masters & Wellman, 1974; Waters, 1978). The results of a large number of studies have now yielded the somewhat surprising conclusion that children vary considerably in the extent to which attachment security remains individually consistent over time. On one hand, research examining the stability of attachment classifications in the Strange Situation reports widely varying estimates of classification stability over periods of just a few months, with the most recent report indicating that approximately half the infants changed classification status over a 6- to 7-month period (Belsky, Campbell, Cohn, & Moore, 1996; see Thompson, 1998, Table 2.3, for a comprehensive review). On the other hand, some studies have found remarkable consistency between Strange Situation classifications and assessments of attachment conducted years later (e.g., Main &

Cassidy, 1988; Wartner, Grossmann, Fremmer-Bombik, & Suess, 1994), although others have not (Zimmerman, Fremmer-Bombik, Spangler, & Grossmann, 1997).

From this research arises the conclusion that sometimes early attachment relationships remain consistent over time, and sometimes they change. This variability makes it impossible to identify a normative level of consistency in the security of attachment. Although unreliability of measurement is always an important consideration in interpreting stability coefficients (especially with a psychologically complex construct like attachment security), external correlates of discontinuity suggest that patterns of continuity and change are often real and meaningful. Based on these findings, attachment theorists have agreed that early attachment experiences are important, but they can be transformed by later experience (e.g., Sroufe, Carlson, Levy, & Egeland, 1999). In other words, both developmental history and current circumstances are influential, and it appears that their relative influence can vary for different children.

This conclusion also applies to research concerning attachment and its sequelae, which is another way of examining the legacy of attachment relationships. Studies using early attachment classifications to predict later features of sociopersonality development also reveal considerable variability in the prediction of later outcomes (see reviews by Belsky & Cassidy, 1994; Thompson, 1998). Although it is generally true that the effects of early experiences (including attachment security) tend to wane over time (Sroufe, Egeland, & Kreutzer, 1990), and attachment has different predictive power for different domains of later functioning (Belsky & Cassidy, 1994), it is nevertheless impressive how much variability exists in the strength of the relations between early attachment and later adaptation. On one hand, a recent report from the Minnesota Parent-Child Project found that attachment status in infancy predicted significant features of personality many years later, including risk for anxiety disorders in adolescence, even when taking into account other variables predictive of later difficulty (Warren, Huston, Egeland, & Sroufe, 1997). These findings are consistent with those of earlier reports from this study. On the other hand, many short-term longitudinal studies have failed to confirm expected relations between infant attachment security and later behavior (or associations are not replicated), leading some reviewers to conclude that the relation between attachment and later behavior is "modest, weak" (Belsky & Cassidy, 1994).

One additional conclusion of this literature is that attachment has much stronger *contemporaneous* asso-

ciations with socioemotional adaptation than it does *predictive* relations (Thompson, 1999). This is hardly surprising considering the ways that intervening events can alter the developmental processes initiated by a secure or insecure attachment (or other early experiences). Although it is more difficult to denote causal influences when interpreting associations among concurrent variables, nevertheless, identifying the network of sociopersonality, emotional, and representational correlates concurrently associated with attachment security can help clarify the developmental significance of this construct, even though longitudinal predictive relations are weak or inconsistent.

Children vary considerably in the extent to which early attachment relationships have an enduring impact, but much less is known about the reasons for individual patterns of continuity or change. There are, however, several important hypotheses that merit greater exploration.

First, from the beginning, attachment researchers have hypothesized that changes in family stresses and living conditions can lead to changes in familiar patterns of interaction, and consequently in attachment security and its correlates (e.g., Vaughn, Egeland, Sroufe, & Waters, 1979). Continuity in attachment and its sequelae presumably derives from relatively greater stability in living conditions. No studies, however, have been designed to systematically examine the relations between stability in attachment and concurrent changes in family circumstances and, perhaps not surprisingly, the indirect evidence thus far is mixed. In the most recent study (Belsky et al., 1996), for example, there were no relations between changes in the security of attachment and measures of parenting obtained between the two Strange Situation assessments (Belsky, personal communication). Furthermore, no research has examined the extent to which early attachment predicts later behavior better in samples characterized by stable living conditions than in samples featuring life changes between the two assessment sessions (but see Thompson & Lamb, 1983).

Second, a related hypothesis focuses primarily on continuity in the quality of care. Several studies have shown that early attachment does not predict later behavior when intervening changes occur in the quality of parental care. A secure attachment does not predict more positive psychosocial functioning when, for example, the mothers of initially secure infants are later observed to behave intrusively and insensitively (e.g., Erickson, Sroufe, & Egeland, 1985). A recent study by Teti, Sakin, Kucera, Corns, and Das Eiden (1996) is particularly informative. They found that attachment security in firstborn preschoolers decreased signifi-

cantly following the birth of a new sibling, and that children whose security scores dropped most dramatically had mothers with significantly higher scores on depression, anxiety, and/or hostility compared with the mothers of children who maintained high security scores. Firstborns' security scores were also predicted by measures of the mothers' marital harmony and affective involvement with the firstborn.

It is, in short, not just changing family circumstances, but also their impact on the quality of parental care, that influences whether early attachments have an enduring impact. Broader family processes and the adult's adaptive capacities may either exacerbate or buffer the impact of family stresses on early child–parent attachment. The way an adult copes with family transitions (itself influenced by personality, relational schemas, and social support) can mediate the impact of these transitions on infant–parent attachment security.

It is possible to hypothesize more specifically about the nature of these broader family processes. Changes in family functioning that have comprehensive rather than delimited effects on family members—such as the birth of a new child, significant changes in marital harmony, or parental death or prolonged illness—are more likely to alter relational security because they force a renegotiation of familiar relational patterns. By contrast, changes in parental employment, family residence, or even child-care arrangements need not necessarily affect child–parent attachment quality because both parents and offspring can more readily adapt to them within the context of their established expectations for each other. Family changes relevant to attachment security are not only indirectly influential through their effects on parenting quality, however; they also may have direct influences on children by demanding emotion regulation and adaptive coping that can also influence attachment security, as suggested by Cummings and Davies' emotional security hypothesis (Cummings & Davies, 1994; Davies & Cummings, 1994). Stresses such as marital discord, for example, may not only indirectly influence attachment security through changes in the sensitivity of stressed parents; they also directly influence the security of attachment through the demands placed on young offspring who must cope with frightening parental conduct (Owen & Cox, 1997). In this regard, the child's temperamental vulnerability or adaptability may also be relevant to understanding the impact of family events on the security of attachment.

Finally, the ecology of early child development has changed significantly during the period that attachment researchers have been studying continuity and change in infant–parent attachment, and it is now important to take into greater consideration multiple attachment relationships experienced within the family (with fathers as well as mothers) and outside the family (e.g., in child-care settings; Berlin & Cassidy, 1999; Howes, 1999). Examining the constellation of relational influences that young children experience may provide significant insights into why attachment security is, for some children, highly vulnerable to family changes and stress, whereas for other children it seems to be buffered against the effects of these transitions. Other relational partners may help to protect the child from insecurity when the mother–child relationship is challenged, for example, or reinforce current or new internal working models of relationships during periods of family transition.

These new hypotheses concerning family processes are relevant also to new theoretical views of the dynamic processes of parenting and child development (Holden & Miller, 1999). In a recent meta-analysis, for example, Holden and Miller found evidence for both stability and variability in parental childrearing practices over time, and concluded that influences such as the child's changing developmental capabilities, normative changes in family structure (such as a sibling's birth), family processes (e.g., employment or child-care transitions), and changes in the parent (e.g., parenting satisfaction) can each contribute to variability in how a child is treated over time. Just as parental sensitivity initiates a secure attachment, the maintenance of age-appropriate sensitive responding is necessary to sustain that security as the child matures. The child's adaptive capacities and influences within the broader family ecology are also relevant to continuity and change in attachment.

CHILDREN'S INTERNAL REPRESENTATIONS OF EXPERIENCE SIGNIFICANTLY MEDIATE THE LEGACY OF EARLY ATTACHMENTS

Consistency and change in attachment can also be understood in terms of how they are mediated by children's representations—or "internal working models"—of themselves and their relationships with others. This is a compelling hypothesis because it focuses closely on the internal representations that mediate the impact of changing family circumstances, or changing caregiving quality, on attachment security and its correlates. Many attachment theorists argue, for example, that one source of continuity in socio-personality development is how children evoke responses from others that are consistent with their internal representations of self and others, construe relational experiences based on their working models, and make choices that reflect their prior representations of self (e.g., Bretherton & Munholland, 1999;

Sroufe et al., 1999). Presumably, attachment does not predict later relational and psychosocial characteristics when the internal representations initially inspired by a secure or insecure attachment change over time.

Much less is known about how internal working models change over time, however. To learn more, we must understand these models as developing representations which evolve rapidly during the early years of life. Changes may occur as new modes of understanding alter earlier representations of experiences related to security or insecurity. Fortunately, understanding the development of internal working models is informed by the expanding research literature on many aspects of young children's thinking and reasoning, including the growth of event representation (scripts and event schemas), episodic memory, autobiographical understanding, theory of mind, developing social cognition, and other facets of early representations of self, others, and relationships that are incorporated into the internal working models construct (see Bretherton & Munholland, 1999; Thompson, 1998). Although there is considerable work to be done in connecting relational experience to these developing representations (see Harris, 1997), this literature has promise for elucidating how internal working models change over time. Research in theory of mind suggests, for example, that a young child's appreciation of another's feelings, thoughts, and motives, and of the reciprocal, complementary nature of relational transactions, expands significantly between the ages of three and five. Research on autobiographical memory suggests that young children are unlikely to begin creating a coherent, enduring self-narrative—integrating current and past events into developing self-understanding—before the age of three. As these studies inform an understanding of attachment-related representations and their development, the internal working models construct, which has been criticized as being unduly vague and generalized (e.g., Rutter, 1995), can be clarified.

Conceptualizing internal working models as developing representations has several implications for understanding the legacy of early attachment relationships. It suggests that changes in working models—and possibly, also, in the security of attachment—are more likely to occur during periods of significant representational advance. Such a view is consistent with the formulations of other attachment theorists (e.g., Ainsworth, 1989), and with the idea that advances in a child's capacities to represent experiences create new ways of conceptualizing and reconsidering prior experiences and the conclusions they have yielded. Thus, individual differences in the security of attach-

ment and the internal working models with which they are associated may be less consistent and less predictive of other psychosocial achievements between representational transitions. Two transitions may be particularly important: when a young child begins to represent in more complex and memorially more sophisticated ways the experiences of care that were earlier interpreted using the simpler perceptual–affective schemas of infancy (see Nelson, 1996); and later, when an older child becomes capable of representing self and relationships with the abstract, hypothetical modes of formal operational thought (Ainsworth, 1989). During each of these transitions, and others, internal working models may be more prone to revision and reconceptualization, and this can account for changes in attachment security and in the sequelae of attachment.

A second implication of viewing internal working models as developing representations is that attachment may be developmentally most influential when the internal working models with which it is associated have sufficiently matured to influence other emerging features of psychosocial functioning. If an integrated, enduring sense of self-understanding begins to take shape after the age of three, for example, then a secure attachment may be most strongly associated with developing self-concept and self-esteem at or after this age rather than before (see, for example, Verschueren & Marcoen, 1999). Similarly, the associations between attachment and emotional understanding (Laible & Thompson, 1998) and emerging conscience (Kochanska, 1995) may be strongest when attachment is assessed in young preschoolers, when theory of mind is rapidly developing and when internal working models are likely to be most influential in the emergence of emotional and moral understanding.

Traditionally attachment researchers have used Strange Situation assessments in infancy as the basis for exploring how attachment predicts later psychosocial functioning. But internal representations of experience are very rudimentary in infants, and assessments at that time are unlikely to capture (except in general affective tone) the more complex conceptions of self, relationships, and other people that are encompassed within the working models construct, and which children begin to acquire in the years that follow. Depending on the outcome of interest, therefore, assessment of attachment security in the preschool period (or later) may reveal more profound influences on development than assessment in infancy because of the greater integrity and sophistication of the internal working models with which it is associated. Future studies of the predictive validity of attachment security may increasingly emphasize at-

tachment during the preschool years, a period during which developing representations of self, relationships, and other people are more significantly influenced by a secure or insecure attachment than in infancy.

Finally, and most speculatively, children may vary individually in the extent to which a secure attachment has a lasting impact because of how the representations associated with secure or insecure working models interact harmoniously or discordantly with other developing systems of thought, including attitudes and attributional biases, personal beliefs related to ability and competence, and understanding of social processes. As young children develop more sophisticated understanding of self and others in close relationships, for example, they are also developing understanding of other features of their life experience, including conceptions of their relationships with teachers and peers in school, people in the neighborhood, their capabilities and vulnerabilities, and their place in the broader world. It is yet unclear, but important to learn, how these representations are related. For children from difficult backgrounds who are prone to hostility and distrust of others, for example, a secure attachment may buffer the development of negative attributional biases and this may be a source of psychosocial continuity for such children. These issues are important because they demonstrate the legacy of early attachments in the context of other influences on developing understanding, and can be explored by researchers who are informed by the conceptual and empirical tools of contemporary work in cognitive development to elucidate attachment theorists' concept of internal working models.

PARENT–CHILD DISCOURSE IS AN IMPORTANT INFLUENCE ON HOW YOUNG CHILDREN REPRESENT LIFE EXPERIENCE

How do the representations that constitute "internal working models" develop in the early years? The view of attachment theorists that the quality of parent–child interaction is important complements current theoretical views in the study of cognitive development. But according to Nelson (1996) and other cognitive theorists, it is the quality of shared discourse, enabled by the child's growing language competency, that significantly shapes representational development during the preschool years. Language permits the exchange of ideas and concepts that affords young children access to modes of thinking of the adult world and, in Nelson's phrase, the "collaborative construction of the mediated mind." The mind of the preschooler is linguistically mediated in ways that make

thinking qualitatively different from what preceded it, reflecting a representational advance as earlier described. In particular, according to Nelson, parent–child discourse guides the emergence of many aspects of thought, including autobiographical memory (as parents establish an interpretive framework that defines the significance of personal events to a young child), theory of mind (as parents help clarify the thoughts, feelings, and motives of people, including themselves, to the child), cognitive models of the world (as parents impart, often implicitly, naive causal theories), and other cognitions related to what attachment theorists regard as internal working models of self, others, and relationships (see also Rogoff, 1990, and Tomasello, in press, for similar views).

Empirical support for these formulations comes from studies reporting associations between features of parent–child discourse and early emotional understanding (e.g., Brown & Dunn, 1996; Fivush, 1993), autobiographical reference (e.g., Hudson, 1990; Miller, Fung, & Mintz, 1996), moral understanding (e.g., Dunn, Brown, & Maguire, 1995; Laible & Thompson, in press), and theory of mind (Welch-Ross, 1997). Consistent with theoretical predictions, researchers have reported that conversations in which parents make more frequent reference to feelings and their causes, and who inquire frequently about and expand more elaborately on the events a child describes, contribute to the growth of psychological understanding of others and the depth of the young child's autobiographical recollections. Moreover, in a recent study, the mothers of securely attached preschoolers responded more elaborately, and with more frequent reference to feelings and moral evaluatives, in their conversations with offspring—and both attachment and maternal discourse style predicted measures of children's conscience development (Laible & Thompson, in press; see also Kochanska, 1995, for complementary findings).

These findings suggest that beyond early sensitive caregiving, parents contribute in other ways to the working models associated with secure and insecure attachment in preschoolers. With the growth of language in offspring, parents initiate conversations about the child's everyday experiences in which implicit as well as explicit understandings of self, emotion, morality, and relationships are co-constructed with the child. The manner in which the parent shares in these conversations—the parent's conversational style as well as content, the adult's implicit assumptions and attributions as well as explicit prompts and questions, the emotional tone of the adult's language as well as its semantic content—is related to how children represent central features of their experience and

their representations of themselves and others. The working models associated with secure or insecure attachments likely have their origins, therefore, not only in the child's direct representations of the sensitivity of parental care, but in the secondary representations of their experience mediated through parent–child discourse. The latter may be especially important as these representations become part of broader networks of self-referential beliefs and social understanding during the preschool years.

Although considerable research remains to be done in exploring further the relations between parent–child discourse, children's representations of experience, and attachment-related relational processes, this theoretical and empirical work raises a number of important questions. Do early parent–child conversations provide a forum for young children to appropriate also the perceptual sets, emotional predispositions, or defensive styles thought to be elements of the working models associated with secure or insecure attachments (Bretherton & Munholland, 1999)? How do young children interpret marked dissonance that may occur between their primary representations of recent experiences and the secondary representations that occur in parent–child discourse (e.g., a child whose distressing trip to the dentist is represented much more positively by the adult; see Levine, Stein, & Liwag, 1999)? Finally, when significant changes in family life (such as the birth of a sibling) alter familiar relational patterns between children and parents, are there adaptations or changes in the style or content of parent–child conversations that may be related to continuity or change in the security of attachment? In general, understanding that internal working models are developing representations, and that parent–child discourse influences the nature of these representations, raises important new research questions concerning how parents contribute to security or insecurity for preschoolers whose representational systems of thought are maturing rapidly.

NEGOTIATING CONFLICT AND ESTABLISHING MUTUAL COOPERATION IS ANOTHER IMPORTANT ASPECT OF EARLY PARENT–CHILD RELATIONSHIPS

Attachment theory is the dominant approach to understanding early parent–child relationships, but from the beginning Bowlby (1969/1982) recognized that attachment encompasses only one dimension of this relationship. At the same time that a foundational sense of security is being established, infants and young children are learning about other facets of close relationships through parent–child interaction. One of these is how to cooperate in the context of conflict over differing goals and intentions.

Learning how to "repair" interactive disruptions is, along with interactive harmony, an early and enduring feature of parent–infant interaction (Tronick, 1989). But conflict heightens in scope and significance with the growth of self-produced locomotion toward the end of the first year (Biringen, Emde, Campos, & Appelbaum, 1995; Campos, Kermoian, & Zumbahlen, 1992). Toddlers become more assertive and goal-oriented as they become capable of independent mobility, while parents more actively monitor their toddlers' activity and increasingly use prohibitions and sanctions to protect children and control their wandering. Conflicts of will increase at the same time as positive affective exchanges, and both may be related to the growing autonomy consequent to the young child's independent locomotion. Moreover, the emotional communication between parents and children also changes to incorporate greater use of signals to convey approval or disapproval of the toddler's behavior (sometimes even before an act is committed), as well as to provide reassurance and emotional support.

The toddler's motoric advance thus inaugurates a change in the parent–child relationship at the same time that a secure or insecure attachment relationship is becoming consolidated. Toddlers are learning how to cope with the frustrations of complying with parental expectations at the same time that they are developing a secure (or insecure) relationship with the parent. Moreover, this change is the vanguard of a more extended developmental transition during the preschool years in which young children are increasingly striving to understand and comply with the behavior expectations of parents while also asserting independent judgment and self-will. Importantly, many of the predicted outcomes of a secure attachment, including the growth of an autonomous self, the maintenance of a harmonious parent–child relationship, competence in other close relationships, and representations of self and others that are positive and balanced, are also likely to be influenced by the ease with which young children learn to successfully negotiate conflict and establish cooperative relations with others, a skill that develops initially in the parent–child relationship. Indeed (and consistent with Vygotskian theory), research on parent–child discourse indicates that experiences of conflict between children and their parents (and siblings) are significant catalysts for growth in understanding emotion, morality, self, and other constituents of the internal working models associated with attachment security (see, e.g., Dunn et al., 1995; Kochanska, 1995).

Although this final conclusion from research does

not derive directly from attachment theory, it suggests that because the outcomes of secure or insecure attachments are influenced by many relational influences, developmental researchers will be wise to consider the multiple dimensions of early parent–child relationships that are emerging at the same time that attachment security is taking shape. With respect to parents, more than sensitivity is important in shaping the early psychosocial adaptation that begins in infancy and continues in the years that follow. With respect to offspring, the legacy of early attachments intersects with the legacy of other relational influences that have developmental origins concurrent with those of a secure or insecure attachment.

CONCLUSION

Understanding change as well as continuity in individual characteristics is essential to grasping the nature of psychological development. Although attachment theorists have contributed valuable conceptual models for describing "lawful discontinuity" in attachment processes, the emphasis of attachment theory and research has naturally been on identifying and understanding the continuities in individual characteristics that appear across developmental transitions.

Yet the attachment literature also offers insights into the nature of the "lawful discontinuities" that characterize attachment security and its outcomes. These include, especially in the early years, influences from the stability, quality, and stresses of the child's living conditions, the consistency of the quality of care provided by close relational partners, and influences of the multiple attachment relationships that sometimes overlap with and sometimes are independent from the mother–child relationship that has been the primary focus of attachment researchers. Influences on developmental discontinuity include also representational transitions that may effect change in the internal working models associated with attachment security. Moreover, viewing internal working models as developing representations means also that the legacy of a secure attachment may depend on the child's age and the maturity of the working models that attachment reflects, as well as other developing representational systems of thought. In some respects, attachment security in the preschool years may be more developmentally provocative than earlier attachment security.

Understanding "lawful discontinuity" also means appreciating the other influences, including those within the parent–child relationship, on the outcomes that attachment security is thought to affect, and recognizing that attachment security is forged in the context of the negotiation of conflict and cooperation in the same parent–child dyad. Further exploration of the legacy of attachment relationships promises to inform broader developmental theories concerning the importance of early experiences and the developmental processes that tend to maintain or revise initial influences.

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