

Twenty-First Century Attachment Theory

Challenges and Opportunities

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Abstract

Attachment theory is the focus of considerable contemporary developmental research. Formulated by Bowlby more than fifty years ago, it has been the subject of ongoing critique, particularly in terms of its relevance in non-Western settings. Attachment theorists have modified the theory in response to empirical findings, advances in allied fields, and further ideas. Yet, as evidenced by this Forum, work still remains. This chapter summarizes changes to some of the central areas of attachment theory as well as remaining points of contention: To whom do infants become attached? How should differences in attachment relationships be characterized? What influences lead to differences in attachment relationships? What are the outcomes of differences in attachment? Its intent is to sharpen the ways that culturally informed research can contribute to a better understanding of the attachment process and its consequences. Discussion concludes with broad reflections on attachment and culture.

Introduction

Theory has an uneven place in contemporary psychology. Theoretical concepts from connectionism, constructivism, social-cognitive learning theory, and other formulations provide researchers with broad interpretive frameworks and testable hypotheses. More commonly, however, psychologists use less comprehensive domain-specific theories that offer guidance to particular research fields, such as Bem's self-perception theory or Marcia's identity status theory. As further evidence that contemporary psychology has moved beyond grand theories, many contemporary psychologists pride themselves on being "data driven": research conclusions are derived inductively from statistics and theoretical assumptions are minimized or, at least, are implicit rather than explicit

(Thompson and Goodman 2011). In this contemporary context, “data mining” is an approbation rather than a criticism. Contemporary research in many fields (e.g., behavioral and molecular genetics, cognitive neuroscience, developmental biology) seems to be influenced minimally by theoretical hypotheses and maximally by emergent patterns in large data sets. Even contemporary introductory psychology textbooks commonly refer to the “perspectives” rather than the theories that guide psychological inquiry.

In this context, attachment theory is a notable exception. Inaugurated with Bowlby’s seminal writings on the nature of the child’s emotional tie to caregivers (Bowlby 1958, 1969), attachment theory has been a preeminent catalyst to developmental research for more than half a century. Its scope has expanded over this time from a primary concern with infant-parent bonding to encompass issues concerning adult romantic relationships, social and personality development, developmental psychopathology, evolutionary adaptation, and public policy problems in divorce and custody, foster care, child care, and grandparents’ rights. Further, ideas associated with attachment theory have influenced pediatric practice, marriage and family therapy, parent counseling, family law, and clinical intervention, both nationally and internationally. During this period, theory has been important as attachment researchers have debated these expansive applications of Bowlby’s theoretical claims, their consistency with amassing empirical evidence, and the generalizability of attachment ideas (see, e.g., Sroufe and Waters 1977; Lamb et al. 1985; Roisman and Fraley 2013; Thompson 2016).

Attachment theory has changed over the past 50 years. This should be expected. After all, Bowlby formulated the theory at a time when scientific understanding of infancy and early childhood underestimated the cognitive and behavioral sophistication of the young child. There have been significant advances in behavioral genetics, evolutionary biology, and developmental neuroscience since his time, as well as growing sophistication in research methodology. Family relationships in the Western contexts on which he based his ideas are different now than they were in Bowlby’s era: the rise of dual-career families, greater recognition of the importance of the role of fathers, increased single parenting, and many other influences. For all these reasons, it has been necessary to update, elucidate, and expand Bowlby’s formulations in ways that he could not have anticipated.

As attachment theory has also expanded over the years, it has served as a conceptual umbrella for broad and narrow constructions of the developmental impact of early parent-child relationships. Under this umbrella there has arisen a variety of attachment mini-theories that concern, for example, the organization of personality development (Sroufe 2005), bioevolutionary adaptation (Chisholm 1996), adult relationships (Mikulincer and Shaver 2007), and other topics. Attachment theory has also changed as attachment researchers have had their own ideas about the influence of early attachment security which they have sought to harmonize with Bowlby’s formulations.

These changes in attachment theory during the past half-century have been largely beneficial, but they present a problem for contemporary scholars. With its adaptation to new research findings, developments in allied fields, theoretical extensions, and expanding applications, what are the important ways that attachment theory has changed, and why has it done so? How does twenty-first century attachment theory compare with Bowlby's formulations of some fifty years ago? These questions are the focus of this chapter, which discusses challenges, changes, and continuing debate over issues such as the range of partners to whom infants become attached, how to characterize variability in the quality of those attachments, the origins of these differences, and the developmental outcomes with which they are associated.

A portrayal of twenty-first century attachment theory is challenging not only because of the many changes that have occurred in the theory over the past fifty years, but also for two other reasons. First, while some theoretical issues have been resolved as the result of new data and new thinking, others remain open, and opinions currently differ among attachment researchers concerning some of the theory's central claims, as I describe below. On these issues, it is difficult to indicate definitively what attachment theory currently claims. Second, Bowlby's theory was not always clear. His ideas evolved between the first and second editions of his seminal *Attachment* volume, and his other writings modified some claims and expanded others. Moreover, some central concepts in his theory are not well defined and are therefore subject to multiple interpretations as the theory has developed.

Consider, for example, the nature and influence of developing "internal working models," the mental representations deriving from attachment relationships that influence how children approach new relationships, view themselves, and interpret social information. There are currently a variety of interpretations deriving from Bowlby's theory of what internal working models are and how they develop and function (Grossmann 1999; Thompson 2008a):

- formulations that are similar to psychoanalytic concepts of the dynamic unconscious and the introjection of good and bad objects,
- conceptualizations that draw on the prelinguistic cognitive-perceptual schemas of infancy,
- ideas describing emotion biases that become incorporated into preattentive processing, and
- proposals that connect working models to the social-cognitive achievements of early childhood, and other formulations.

There is currently no consensus among attachment researchers on how internal working models develop and function beyond Bowlby's general ideas about their influence on relationships, self, and social information processing. This poses a problem not only for those who are trying to understand the central claims of contemporary attachment theory, but also for the coherence of the theory itself. After all, it is easy to interpret almost any research results in terms

of the functioning of internal working models if the construct is so vaguely defined that it can accommodate nearly any empirical findings (Thompson and Raikes 2003). In short, although attachment theory has changed considerably during the past half-century, theoretical clarity is still lacking in some important areas, and this is challenging for those who wish to understand the central claims of the theory.

The effort to clarify how attachment theory has changed, what are continuing points of theoretical uncertainty, and how this compares with Bowlby's original formulations is important to a discussion of the cultural context of attachment. In the years leading up to Bowlby's theory, and more vigorously since then, substantial research has provided evidence that (a) the caregiving conditions of young children are diverse, (b) children develop significant relationships with people other than the biological mother, and (c) complex developmental outcomes are associated with these relationships. This research has engendered considerable debate about its relevance to the central claims of attachment theory, which was developed to understand species-typical characteristics of infant attachments to caregivers. Reconciling the central claims of attachment theory with the meaning and significance of culturally diverse forms of care is thus important. However, this discussion must focus on the claims of contemporary attachment theory rather than only on claims made by Bowlby over a half-century ago. Doing so helps to clarify relevant cultural critiques of the theory and continuing challenges to be addressed as attachment theorists respond to the evidence of cultural research.

In this chapter, therefore, my goal is to discuss some of the characteristics of twenty-first century attachment theory, especially those elements of the theory that are most relevant to cultural critiques of the theory, and in which contemporary ideas have evolved from those originally formulated by Bowlby. The discussion that follows is organized around four central questions:

1. To whom do infants become attached? This relates to Bowlby's concept of monotropy and the influence of multiple attachments.
2. How should differences in attachment relationships be characterized? Here we consider new thinking about the meaning of these differences, especially in the context of Bowlby's evolutionary formulations about the importance of security.
3. What influences lead to differences in attachment relationships? This issue relates to the nature and significance of caregiver sensitivity.
4. What are the outcomes of differences in attachment? Here the range of competencies and liabilities that might derive from early secure and insecure relationships is considered.

The chapter closes with some concluding reflections about future discourse of attachment and culture, as well as the challenges and opportunities of contemporary attachment theory.

To Whom Do Infants Become Attached?

During the middle of the twentieth century, conventional thinking about families in the Western world was that infants developed emotional attachments to their mothers who were biologically and motivationally prepared to provide love, nurturance, and protection. Such a view accorded with normative patterns of family life in industrialized Western societies (especially in middle- and upper-income homes) as well as with prevalent portrayals of how the young were cared for in other mammalian species and throughout human evolution. In this context, Bowlby (1969) contributed a view of infant-parent attachment that was both familiar and novel. He argued that “almost from the first, many children have more than one figure to whom they direct attachment behavior” (Bowlby 1969:304) and that attachment figures may be biological kin (such as a grandparent) but need not be so (e.g., a regular care provider could be, depending on the context, a nanny, babysitter, or alloparent). His explicit use of the term “mother-figure” simultaneously emphasized that person’s behavior rather than relatedness while also (perhaps unfortunately) tying that behavior to portrayals of traditional mothering. Bowlby observed that young children treat these attachment figures differently from one another. His view—that there is likely to be a principal attachment figure who is preferred for comfort and security—is the basis for his use of the term “monotropy.” Attachment figures are thus differentiated from a broader cohort of social figures in the child’s world, and there exists a preferential hierarchy among those people.

Bowlby’s original theory thus incorporated a tension between a view of multiple attachment figures and a view of mothers as uniquely important and influential. In the research that followed, attachment researchers in Western industrialized countries focused their attention predominantly on relationships between infants and those who were typically their principal attachment figures, the child’s mother. A handful of researchers, however, also examined the nature and developmental influences of other attachment relationships, including those with fathers, siblings, childcare providers, and others (for a review, see Howes and Spieker 2016). This research partially supported Bowlby’s hierarchical model of the influence of multiple attachments on children’s development in Western contexts, especially the strong influence of the child’s relationships with primary caregivers. However, it also supported a model of domain-specific developmental influences, in which different attachment relationships have preeminent influence for children’s behavior in certain domains of behavior relevant to that relationship. For example, although mother-child attachment is a robust predictor of children’s peer competence in studies conducted in Western industrialized countries (Groh et al. 2014), researchers have found that measures of teacher-child attachment in childcare programs predict peer competence in those programs and elsewhere better than mother-child attachment (Howes et al. 1994; Ahnert et al. 2006). Similar findings have been reported for young children living on Israeli *kibbutzim*, in which relationships

with *metaplot* (communal caregivers) predicted children's peer competence five years later whereas the security of mother-child and father-child attachments did not (Oppenheim et al. 1988).

Such research on the independent and combined influences of multiple attachment relationships is far less common in the attachment literature than studies of mother-child attachment alone, which may help to explain why Bowlby's concept of monotropy is identified with a matricentric orientation in attachment theory. Most of what is known about the immediate and longer-term consequences of the security of attachment, for example, derives from studies of mother-child attachment in Western countries (for a review, see Thompson 2016). The uneasy tension between the view of the mother as primary and the influence of different attachments extends to the theory's international influence on public policy. In the United States, for instance, attachment theory was an important influence in moving child custody adjudication from a maternal presumption to a broader focus on the child's primary caretaker (e.g., Neely 1984), but Australian researcher Jennifer McIntosh (2011) and others have enlisted attachment theory to argue for a more exclusive maternal preference.

Despite these tensions in the theory and its applications, twenty-first century attachment theory recognizes, far more than did Bowlby's original theory, the fact that young children normatively form multiple attachments within the family and outside of it, and that these attachments are developmentally important. Attachment theory would benefit from greater attention to the nature and influence of other nonmaternal attachments in young children's lives, such as those in the extended family setting as well as in formal and informal caregiving arrangements (including family, friend, and neighbor care in small communities). Building on research that documents the direct and indirect effects of family relationships on child development (e.g., Parke and Buriel 2006), such studies could expand understanding of the system of attachment relationships that influence a child's development by examining how attachment figures facilitate (or impair) the child's interactions with other figures; the complementary roles that attachment figures assume in offering nurturance, support, and protection; and how these relationships become internalized by the child in terms of mental working models that incorporate hierarchical, domain-specific, or integrated influences. Some efforts have been made by attachment researchers to situate multiple attachment relationships within broader social networks in which partners who are not necessarily attachment figures also provide care, initiate play, offer support, and influence children's development (see, e.g., Lewis 2005; van IJzendoorn 2005). However, much more is needed if attachment theory is to remain relevant to the conditions of children's care around the world.

Here the work of culturally oriented researchers can make an important contribution by studying the child's experience of the diverse environments of relationships characterizing different developmental contexts. To advance the theory further, however, requires more than just documenting the range of

social partners with whom an infant interacts, because not all social partners are necessarily attachment figures. It is also essential to understand the significance of different adults to the child.

One illustration of how this might be accomplished stems from the work by Meehan and Hawks (2013) with the Aka in the Congo Basin Rain Forest. Using focal sampling, they sought to describe not only which adults provided care for infants and young children but also children's differential display of attachment behaviors (which they defined in terms of proximity- and contact-seeking, distance interaction, affectional actions, and related behaviors) and adults' responsiveness to these behaviors. They found that infants had an average of six attachment figures, but that the number of adults to whom children displayed attachment behaviors was relatively small compared to the size of children's caregiving networks. For example, not all allomothers were attachment figures, and even though mothers and allomothers responded comparably to children's distress, they responded very differently to children's display of attachment behaviors. Studies like this are valuable in developing a theory of attachment that is culturally informed. They connect young children's social experiences with efforts to denote their effects on the child's responses to putative attachment figures and other partners, with the goal of developing understanding of the *meaning* of these relationships to the developing child in the contexts in which they develop.

How Should Differences in Attachment Relationships Be Characterized?

The quality of adult-child relationships can be characterized in many ways: warmth, regulation, acceptance, autonomy support, communication, connectedness, guidance, and mutuality are some of the terms currently used in contemporary developmental science. Attachment theorists' early and sustained emphasis on the concept of *security* reflects several assumptions about attachment relationships.

The first is a focus not on the caregiver's behavior per se but primarily how it psychologically impacts the child. This recognizes that parental conduct is diverse but that its consequences for the child are most important, especially as they are moderated by characteristics such as child age, the child's representations of the parent's behavior, beliefs and expectations, and other factors. Indexing attachment in terms of security focuses on the effects that a caregiver's behavior has on the child.

Second, the concept of security underscores the significance of the child's trust or confidence in the caregiver, particularly in conditions of threat, distress, or danger when the solicitude of others is most needed. In Bowlby's portrayal of the environmental conditions of human evolution, such trust was necessary for human young to engage in exploratory forays to learn from the

environment while maintaining access to the protection and nurturance of caregivers (i.e., the attachment-exploration balance). This may be true in many, but not necessarily all, developmental contexts. When infants are being continuously carried by one or more caregivers and do not engage in exploratory forays, for example, the functions of security might well be reconceptualized in relation to developing attachment. The general argument of attachment theory, however, is that young children's learning and healthy growth are facilitated when threat vigilance is reduced by the child's reliance and trust in caregivers during a developmental period when dependency on the others' solicitude and protection is high.

Third, in the concept of security, early attachment theorists wedded multiple meanings of *adaptation* (Lamb et al. 1985). Secure attachments were considered to be:

- *evolutionary* adaptive by promoting survival to reproductive maturity in the ecological conditions in which humans evolved, especially in light of complementary behavioral systems in adults promoting solicitude toward the young,
- more *developmentally* adaptive than insecure attachments, because they promoted learning and sociability in the context of strong human connections to one or more caregivers, and
- more adaptive in the sense of *psychological health*, because of how the characteristics promoted by a secure attachment foster stronger personality characteristics and better coping skills when children encounter difficulty.

There have been significant theoretical and empirical advances in evolutionary biology and behavioral ecology since Bowlby's time that call into question some of these formulations related to the importance of infant security in the ecological contexts of human evolution. These include:

- reconceptualizing the ecological conditions of the environment (or, more properly, environments) of human evolution as complex and changing over time,
- recognizing that there are different kinds of evolutionary adaptations in the juvenile years and they do not necessarily all have implications for psychological health,
- understanding that there are conditions in which parental solicitude toward the young can and cannot normatively be expected, and
- recognizing that evolutionary adaptations likely involve multiple conditional behavioral strategies applied situationally rather than a single fixed species-typical strategy (i.e., the concept of adaptive phenotypic plasticity; Thompson 2013a; Simpson and Belsky 2016).

Many of these problems for Bowlby's theory were raised early on by attachment researchers (e.g., Lamb et al. 1984b) as well as by researchers external to

attachment theory (e.g., Trivers 1974; Hinde 1982). Although these advances in evolutionary thinking have not been fully integrated into attachment theory, a general agreement among many twenty-first century attachment theorists is emerging that Bowlby's view of secure attachments as a species-typical norm, adapted to a single, species-typical ecological niche, and insecure attachments as deviations from this norm is inadequate. Instead, it is increasingly recognized that different forms of attachment may be adaptations to different conditions of care which are themselves adapted to different ecological niches.

Guided by life history theory, for example, some views regard different forms of attachment as conditional adaptations to different developmental contexts (Simpson and Belsky 2016). Ecological conditions—including resources that are plentiful, scarce, or unpredictable, and environmental conditions that are benign or threatening—contribute to differences in parental investment which foster different forms of attachment in offspring that are, in this sense, preparations for living in those ecological conditions (e.g., Belsky et al. 1991; Chisholm 1996). Thus, for example, avoidant attachment to caregivers who are indifferent or rejecting—perhaps because they have few resources to provide the infant—motivates young children to look elsewhere for support and to develop other behaviors suited for competing with others in an environment of scarcity and potential deprivation. From this perspective, each form of attachment is biologically adaptive in the ecological contexts leading to its development, and this is consistent with the value of viewing parent-child attachment within a social network perspective.

These formulations also reflect how current evolutionary theory underscores the context sensitivity of biologically adaptive behavioral patterns. They highlight the interaction of what Gaskins (2013) describes as the universal and cultural contributions to attachment. Cultural contributions are manifested in the diversity of beliefs, goals, and practices that influence the development and functioning of attachment relationships. But these cultural contributions must, in some way, address a central issue faced by all cultures: how to ensure that the young survive to reproductive maturity (and that their offspring do as well). Modern evolutionary theory is pushing attachment theory to substitute for Bowlby's portrayal of species-typical secure attachments an alternative model of different forms of attachment adapted to different ecological conditions, where each enables infants to survive to reproductive maturity in those conditions. Within and outside of those conditions, moreover, different forms of attachment have different implications for the child's behavior, integration into the social context, and well-being.

Even when they recognize that different attachment patterns may be conditional adaptations to different developmental contexts, attachment theorists do not conclude that young children's developmental outcomes are equivalent or comparably constructive even in the contexts in which they develop. Not all cultural adaptations are psychologically constructive for children. Seymour (2013), for example, drawing on the ethnography by Du

Bois (1944) of the Alor (a small horticulture community living in an island in Indonesia), argues that the dispersed caregiving practices Du Bois documented are consistent with Alorese values of self-reliance, open expression of anger and hostility, low interpersonal trust, and high aggression of this community that was just emerging from a period of continuous warfare. But the attachment patterns derived from these conditions—in which infants experienced varying degrees of hunger and unpredictable care, the withdrawal of social support with the onset of walking, and adults provoking young children with teasing, threats, ridicule, and intentional scare tactics—yields a portrayal of young children whose working models of social relationships were characterized by “fear, anger, and distrust,” according to Seymour (2013:123). These developmental outcomes may reflect an adaptation to a particular ecological context but also derive from what Carlson and Harwood (2014) call a “disabled caregiving system.”

The conditions of the Alor children, and equally disturbing contemporary observations of children in conditions of war and social upheaval, establish a boundary of conditions that have failed children, no matter how much they reflect adaptations to ecological contexts (Carlson and Harwood 2014). On the other side of the continuum of care, in which caregiving conditions seem more constructive for supporting young children’s well-being, cultural informants differ on what behaviors in young children denote positive attachments. Research in a variety of cultural contexts has revealed a range of parental portrayals of desirable child conduct, whether it involves interdependency (rather than autonomy), minimization of emotionality (rather than emotional expressivity), assertiveness, or other characteristics (Rothbaum et al. 2000b). Whether these are relevant to attachment theorists’ emphasis on security, whether typical conceptions of security need to be broadened, or whether alternative ways of conceptualizing attachment are needed, as Crittenden (2000) has done, remains to be seen, and thoughtful ethnographies will make important contributions to thinking through the intersection of parental values, children’s needs, and the broader ecological conditions they share (see, e.g., the portrayal of “concentric circles of attachment” in the Pirahã of Amazonia, Brazil, by Everett 2014).

It is important to note, however, that attachment theorists’ fidelity to Bowlby’s concept of security is not because it was or is a preeminent child-rearing value of British or American parents. Rather, viewing security as the core of attachment relationships was consistent with Bowlby’s portrayal of the evolutionary adaptations that enabled human young to survive to reproductive maturity. In addition, in studies conducted in the West, secure attachment has been consistently associated with a wide range of positive developmental outcomes. Alternative portrayals of the functions of attachment relationships in other cultures must, therefore, move beyond descriptions of parental beliefs alone to offer comparable evidence that they are also associated with important developmental outcomes in children, preferably in longitudinal research, in

order to provide a strong alternative to the concept of security. This is consistent with the view that attachment embraces both cultural and universal dimensions.

Finally, the Strange Situation Procedure was developed as a laboratory assessment of differences in the security of attachment in middle-class American families, and misapplications of this procedure to cultural contexts involving different normative early experiences were recognized quickly (Lamb et al. 1984b). Although this did not eliminate inappropriate applications of the Strange Situation to contexts very different from those for which it was developed, it has cautioned attachment researchers in their interpretation of children's behavior in this procedure. The Strange Situation has been a very useful tool for assessing security-oriented differences in attachment in Western contexts. Determining whether the Strange Situation or alternative validated measures, or their adaptation, are appropriate for assessing attachment in different cultural contexts, however, hinges on a prior determination of the place of security in the infant's experience of caregiving relationships and the suitability of the prevalent attachment classifications for characterizing individual differences in alternative contexts. This remains an important task.

What Influences Lead to Differences in Attachment Relationships?

Attachment theorists, beginning with Bowlby, understand differences in caregiver sensitivity to be a major influence on the development of secure or insecure attachments. Sensitive responsiveness is believed to provide confidence in the reliability and helpfulness of the adult's assistance, especially in circumstances when infants are distressed or alarmed, and thus it is believed to contribute to a secure attachment. Based in part on very strong associations between home observations of maternal sensitivity and infant Strange Situation behavior in Ainsworth's original Baltimore sample, attachment researchers, from the beginning, concertedly sought to replicate and extend this predictive association.

Results, however, have been a bit disappointing. According to a meta-analysis by de Wolff and van IJzendoorn (1997), differences in maternal sensitivity are reliably but very modestly associated with the security of attachment in studies conducted in Western industrialized countries. Ainsworth's strong findings have not been replicated, and subsequent research indicates a much weaker association than she found between maternal sensitivity and infant security. Importantly, de Wolff and van IJzendoorn (1997) included studies using a range of measures of maternal sensitivity to ensure that their conclusions were inclusive of diverse conceptualizations of sensitivity. Although experimental studies in multiple countries show that improving maternal sensitivity increases the likelihood of infant secure attachment, which provides causal evidence of their association, research since the 1997 meta-analysis has been

unable to document a stronger association between them in correlational studies (for a review, see Fearon and Belsky 2016). This conclusion has led attachment researchers to consider why the association of sensitivity and security is not stronger. Belsky (1997b) has proposed, for example, that because children are differentially sensitive to some environmental influences, it is possible that some children are more strongly affected by maternal sensitivity than others, leading to a modest overall effect size when the two groups are combined.

Twenty-first century attachment researchers have moved beyond differences in sensitivity alone to consider the influence of other variables, including characteristics of maternal personality, the quality of the marital relationship, social support from outside the family, and infant temperament (Fearon and Belsky 2016). Because the association of sensitivity and security is lower in economically stressed families, for example, family stress may attenuate the strength of their association and influence directly the security of attachment. Raikes and Thompson (2005) found that in a sample of lower-income families in the United States, economic stresses (such as low income) were associated with insecure attachment because of their effects on maternal sensitivity, whereas emotional stresses (such as domestic violence or substance abuse problems in the family) were directly associated with insecure attachment independently of maternal sensitivity. Cowan (1997) has proposed that a family system approach is required for better understanding. Clearly, more work is needed. The authors of the 1997 meta-analysis stated the clearest conclusion succinctly: “Sensitivity is an important but not exclusive condition of attachment” (de Wolff and van IJzendoorn 1997:571). Most attachment researchers would concur that it is important to look beyond sensitivity alone in understanding the origins of differences in attachment relationships.

Research that incorporates a greater focus on culture can help identify other ways of thinking about influences that guide the development of differences in early child-caregiver attachment. This might involve developing measures of sensitivity that are adapted to cultural practices, values, and goals for children (see Keller 2007). It is important to understand that how sensitivity is expressed in situations, for example, where mother and child are in nearly continuous physical contact, or when multiple figures in the community provide care, is likely to be different than in a context in which child and parent are often physically separated and responsiveness to signals is central. One illustration of relevant cultural research is when Hewlett et al. (2000) conducted extended, time-sampled observations of mothers and infants among the Aka foragers and Ngandu farmers from Central Africa and upper middle-class Americans in Washington, D.C. Their findings confirmed differences in infant behavior and maternal responsiveness relevant to each ecological context. Almost always held, Aka infants cried least, but when they did, their mothers responded immediately with rocking, feeding, and other kinds of soothing behavior. American infants were more likely to be picked up when they fussed, with American mothers engaging in more vocalizing, distraction, and

stimulation of the baby. Ngandu mothers, whose infants fussed most, engaged in other kinds of soothing. Hewlett et al. (2000) argue that mothers responded sensitively in each context in a manner consistent with other caregiving conditions (e.g., carrying, foraging, proximity to the infant).

Shared caregiving, which is observed in many cultural contexts, may also require the consideration of sensitivity in a collective manner. This was the conclusion of a study reporting that children in nonparental care in Western countries were more likely to be securely attached to care providers when these adults manifested *group*-based sensitivity (e.g., such as interacting positively with a child while supervising the other children) rather than sensitivity expressed dyadically to *individual* children (Ahnert et al. 2006). Not just multiple children but multiple caregivers also warrant consideration of collective sensitivity (Keller and Chaudhary, this volume). In many non-Western contexts, observers must take into account the sensitivity of several caregivers and the security this confers on the child's experience, in which children learn about the trustworthiness of multiple people. Consideration of what is locally defined as good parenting is also important.

It is also likely to be necessary to look beyond variability in sensitivity to understand the origins of differences in early attachment relationships. Attachment researchers have not examined variability in how parents regulate the child's behavior, for example, even though the period during which attachment security takes shape is also a period when young children become increasingly mobile and goal-directed, assert independent intentions, and become more capable of acting in a more dangerous or disapproved manner (at least in Western contexts). Yet differences in parental regulatory behavior may be important to the security of attachment in ways that do not fully overlap with differences in sensitivity. Bowlby (1969) himself recognized that even in infancy, attachment is only one of several components of the parent-child relationship: parental roles as attachment figures are complemented by their roles as play partners, teachers, and behavioral managers. In other cultural contexts, other parental roles can be observed, and this is certainly noted in ethnographies in non-Western contexts; see, for example, Barlow's study of the influence of feeding in the development of attachment among the Murik of Papua New Guinea (Barlow 2013). It would be premature, in a Western or non-Western context, to expect that these alternative parental roles do not intersect in shaping the infant's experience of the parent-child relationship. Thus further exploration of their contribution to the development of differences in attachment relationships seems warranted.

What Are the Outcomes of Differences in Attachment?

Developmental psychologists were drawn to attachment theory as the result of two sets of research findings that appeared in the late 1970s. First, Waters

(1978) reported that the security of attachment was remarkably stable when infants were observed in the Strange Situation at 12 and 18 months, with 96% of infants classified the same each time. Second, a number of researchers began reporting longitudinal findings indicating that differences in the security of attachment were associated, in ways predicted by attachment theory, with later measures of social-emotional functioning such as peer sociability, positive affect, and cooperativeness. These findings were important in light of the failure of previous measures of parent-child relationships to show any kind of consistency over time or to predict important aspects of the child's subsequent development. They were also consistent with the claims of attachment theory and also with other developmental perspectives, such as Eriksonian theory. However, both conclusions—that early attachments are necessarily stable and that they predict later social-emotional competencies—have been modified over time in the face of accumulating research evidence.

Concerning the first, it is now clear that early attachments are not necessarily stable over time. Subsequent longitudinal studies have failed to replicate the findings by Waters; instead, researchers have reported a broad range of stability estimates when attachment assessments have been separated by a few months to a few decades (Thompson 2000).¹ There is some evidence that changes in the security of attachment over time are associated with concurrent changes in family stresses and/or circumstances of care, which may account for the wide range of estimates of stability in different samples. The most confident conclusion that can be derived from this research is simply that “sometimes early attachment relationships remain consistent over time, and sometimes they change” (Thompson 2000:146).

Concerning the second, several decades of research in Western settings have confirmed that early mother-child attachment is associated with the later social-emotional competencies identified by Bowlby. Attachment researchers have found associations between early security and later relations with parents, peers, and other social partners, as well as with self-concept, aspects of developing personality, social cognition, emotion regulation, and behavior problems (reviewed by Thompson 2016). By and large, most of these predictive associations are consistent with the expectations of attachment theory, although the proportion of variance explained in these outcomes is small. Nonetheless, attachment researchers have also tested, and confirmed, that attachment is associated with a remarkable range of other outcomes that are well beyond those predicted by Bowlby and with the attachment theory he formulated. Guided by a general expectation that a secure attachment would predict better later functioning, researchers have broadened their inquiry to explore how security predicted later cognitive and language development, exploration and play,

¹ A meta-analysis by Fraley (2002) concludes that there is modest stability in the security of attachment, although this analysis used a wide variety of attachment measures and only indexed stability over time in whether individuals were secure or insecure.

curiosity, math achievement, and even political ideology, extending the range of predictive correlates far beyond what Bowlby originally envisioned. As Belsky and Cassidy (1994) mused, one might wonder if there is anything to which attachment security is *not* related. The broadening range of later correlates derived, in part, from the availability of large longitudinal data sets with early measures of attachment and a wide range of later measures that could be studied as developmental outcomes (whether theoretically expected or not), together with the flexibility of the unmeasured internal working models concept to “explain” the significant associations that emerged.

What does it mean when attachment researchers find associations between attachment security and outcomes (such as math achievement) that are not really consistent with the theory? One response is to modify the theory to harmonize with the findings, which helps to account for the current diversity of theoretical perspectives about the developmental outcomes associated with secure or insecure attachments. Another is to dig more deeply into (unmeasured) mediating influences that might explain the association. For example, it might not be true that a secure attachment makes children more mathematically competent. Rather, the security of attachment might be associated with stronger teacher-child relationships, parental support at home (and with homework), and other social influences that contribute to math achievement (see Teo et al. 1996). Consistent with the latter approach, attachment researchers have begun to enlist more sophisticated methodologies, beyond simple test-retest longitudinal designs, to consider more complex associations between early attachment and later outcomes. These include the use of growth curve modeling, mediational analyses, and biologically informed designs to examine, for example, whether a secure attachment moderates the effects on children of other parental practices (such as disciplinary styles), or how the social cognitive correlates of a secure attachment facilitate relationships with others, such as peers (for a review, see Thompson 2016). Although there remain many problems to resolve (and cautions in the overstatement of correlational research conclusions), the association between the security of attachment and later competencies in Western contexts is important, even though attachment researchers need to be more theoretically self-disciplined in this work.

One implication of this research, however, is that twenty-first century attachment researchers do not embrace the view that early attachments are rigidly stable or an unduly narrow interpretation of the competencies that should derive from an early secure attachment. Indeed, the dizzying variety of outcomes which have been documented in Western contexts seems to invite an open regard for the kinds of competencies that might be associated with attachment in other cultural contexts, especially in light of current interest in indirect and mediated associations. Consider, for example, the association between secure mother-child attachment and the child’s nutritional status identified by Kermorian and Leiderman (1986) among the Gusii in East Africa. Western researchers would be unlikely to consider nutritional status as a predictable

outcome of secure attachment, and thus it broadens the range of potential benefits of attachment security, especially if such associations are replicated in other contexts. At the same time, it invites the same consideration of direct and indirect influences (e.g., through duration and social interaction during feeding) by which attachment and nutritional status are related.

Viewed more broadly, perhaps a good starting point for thinking about how early attachment influences development is in terms of the various ways it contributes to the integration of the child into the social context, initially through the development of social trust and the growth of behavioral competencies relevant to becoming a well-functioning member of the cultural group (Weisner 2016b). This would be a way of characterizing some of the developmental outcomes proposed by attachment theory for children growing up in Western contexts, and it might offer a useful general heuristic for thinking about developmental outcomes in other cultures also. Young children who are learning, in the context of their own culture's values, to coordinate their needs with the needs of others in the interests of interdependent social harmony, to manage the expression of strong emotions in the interests of maintaining respectful relationships, or of maintaining appropriate ingroup-outgroup distinctions are each developing cultural competencies in ways that could be consistent with cultural values, desirable parenting practices and, one might suggest, the claims of attachment theory.

Attachment and Culture

It should be apparent to the reader that there is considerable diversity of perspectives among attachment researchers. In a community of scholars as conceptually diverse as this, it is probable that some would disagree with the portrayal of twenty-first century attachment theory presented here. The characterization of contemporary attachment theory presented here is based on research and conceptual advances during the past half century, however, and it is likely to be close to a consensual view, although I claim sole responsibility for this portrayal.

The portrayal of attachment presented in this chapter underscores the continuing challenges that derive, in part, from the theory's breadth and longevity. The tension between a monotropic view of attachment and recognition of the importance of multiple attachments that characterized Bowlby's theory remains true in contemporary research—the tension still exists—even though contemporary attachment researchers recognize that a much wider range of normative attachments develop in the early years. Bowlby's evolutionary model of secure attachment as biologically normative is being superseded by more current, complex evolutionary models that portray attachment patterns as different behavioral strategies adapted for different forms of parental investment under different ecological conditions. But attachment researchers are still

working out the implications of this view and, in particular, how sensitivity to context is incorporated into a species-typical developmental formulation. The realization that sensitivity is a reliable but not especially strong predictor of the security of attachment has forced researchers to consider other contributors to developing parent-child relationships, including those from multiple caregivers. Finally, the remarkably broad range of developmental outcomes to which attachment security is linked is requiring attachment researchers to examine more carefully how and why these outcomes should be associated with the security of attachment in order for the theory to remain coherent.

What does this mean for better understanding the cultural context of attachment? For many years, critics have argued that culture has been ignored by mainstream attachment researchers in two ways: First, attachment researchers have failed to adequately qualify the generalizability of their conclusions to the cultural contexts (primarily Western industrialized nations) from which they were derived. As a consequence, Western conceptions of infants' needs and care have become a universal standard against which others are evaluated under the umbrella of Bowlby's evolutionary model. Although attachment researchers have made some progress in recognizing the limitations of their research literatures (see, e.g., Mesman et al. 2016b), this has not been satisfactory to many critics (see, e.g., Morelli and Henry 2013:17), and more progress is certainly needed. Second, critics argue that mainstream attachment researchers perpetuate this problem by continuing to focus their attention on developmental processes in Western industrialized countries and thus fail to build the database necessary for a truly culturally informed attachment theory. Quinn and Mageo (2013:3–32) describe what that research enterprise would look like:

[I]f we ever hope to derive culturally meaningful patterns of variation in attachment, we must deduce that variation from a large set of such cross-cultural studies, representative of the full range of human societies and human caregiving practices.

Although the lack of cultural diversity could be regarded as a limitation of virtually every research literature concerning normative development, this criticism certainly applies to attachment theory. Addressing it as Quinn and Mageo propose is a daunting challenge, as it would be to any developmental formulation that claims to address broadly generalizable, species-typical developmental processes.

It is, however, possible to take a somewhat more optimistic view of the opportunities for a constructive integration of culture with attachment theory. Many of the current challenges facing attachment theory can be addressed, at least in part, through greater consideration of findings from different cultural contexts. Greater understanding of how multiple attachment relationships develop and function for young children requires studying children in contexts where these networks are normative. Understanding how species-typical

processes underlying attachment incorporate sensitivity to the physical and social ecology requires studying attachment in diverse ecologies. Deeper consideration of the utility of concepts such as attachment “security” and parental “sensitivity” can benefit not just from conceptual critiques of these terms but also from focused studies of the interactions between young children and their caregivers in different contexts and, most importantly, the meaning of these interactions to the child. Likewise, if attachment contributes to the development of social trust and the behavioral competencies necessary to function effectively in the social world, then better understanding of how this occurs in diverse cultural contexts could contribute to clarifying the developmental outcomes that attachment should—and should not—predict.

Taken together, it is reasonable to conclude that twenty-first century attachment theory offers today a more open field for integrating cultural perspectives than has previously existed or been understood. Evidence from carefully designed, culturally informed studies of attachment has broadened perspectives that have emerged from research conducted primarily in Western contexts and can continue to do so in the future. Seizing this opportunity is a challenge for twenty-first century attachment research.

It is also a challenge for developmental researchers who focus on culture. They need to appreciate one further reason that cultural criticism of attachment theory has tended to fall on deaf ears. While culturally oriented researchers ask for greater *culturally informed attachment research*, attachment researchers sometimes wonder where they can find greater *attachment-informed cultural studies*. When they survey the research literature on culture and attachment, attachment researchers find relatively few studies that address the central claims of attachment theory in an informative way: as indicated above, research that might be relevant is often not focused on the developmental experience of young children. The perplexity of attachment researchers finds resonance in Alma Gottlieb’s (2004) remarkable study on the culture of infancy among the Beng of West Africa, which opens with the question: “Where have all the babies gone?” In posing this question, Gottlieb reflects on the absence of attention to infancy by contemporary cultural anthropologists. Her question thus helps to explain why so many of the questions posed in this chapter concerning the intersection of culture with attachment theory still do not have useful answers. Although critics of attachment theory often point to shared caregiving as a cultural norm inconsistent with Bowlby’s theory, for example, cultural research described earlier suggests that all alloparents are not necessarily attachment figures; thus, the significance of shared caregiving to contemporary attachment theory remains unclear until the meaning of different caregivers to infants in these contexts are better studied. When LeVine (2014) draws on his work with the Hausa of northern Nigeria and notes that Hausa mothers practice a custom of avoidance with their infants, he posed a question that would interest an attachment researcher: What is it like to be raised by a mother who avoids you in public? Unfortunately, he offers no answer. Attachment researchers have failed

to properly incorporate culturally informed studies into their theoretical conceptions of attachment relationships, but they have not been aided by cultural critics whose (sometimes strident) criticisms have often failed to be substantiated by informative data relevant to attachment concerns.

Fortunately, this situation is beginning to change as Gottlieb's question is being addressed by a growing research literature focused on infancy and cultural conditions of early care (e.g., Hewlett and Lamb 2005; Quinn and Mageo 2013; Otto and Keller 2014). Attachment theory would be stronger with the thoughtful inclusion of culturally diverse studies. This is a goal to which researchers with a variety of perspectives should contribute.

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