



From “The Cultural Nature of Attachment: Contextualizing Relationships and Development,”
Heidi Keller and Kim A. Bard, eds. 2017. Strüngmann Forum Reports, vol. 22,
series ed. J. Lupp. Cambridge, MA: MIT Press. ISBN 978-0-262-03690-0.

6

Taking Culture Seriously A Pluralistic Approach to Attachment

Gilda A. Morelli, Nandita Chaudhary, Alma Gottlieb,
Heidi Keller, Marjorie Murray, Naomi Quinn,
Mariano Rosabal-Coto, Gabriel Scheidecker,
Akira Takada, and Marga Vicedo

Abstract

This chapter presents an alternative view to classic attachment theory and research, arguing for systematic, ethnographically informed, approaches to the study of child development. It begins with the observation that the attachment relationships children develop are locally determined and insists that these features of attachment can only be captured through observing, talking with, and listening to local people as they go about living their lives, including caring for children. It reviews the profound ways in which child care around the world differs from the Western model, upon which attachment theory was founded and myriad recommendations have been derived. This worldwide account perspective of child care is profusely illustrated with ethnographic examples. Network theory is then discussed: from the full range of social networks to relational ones (i.e., smaller sets of individuals to whom children may become attached). The chapter considers attachment theorists' resistance to the idea of multiple attachments, historically and still today. Discussion closes with a summary of the implications of our theoretical rethinking and the questions that remain.

Introduction

The lives of infants, young children, and their families differ in many ways around the world for a great number of reasons. Communities differ in the

Group photos (top left to bottom right) Gilda Morelli, Nandita Chaudhary, Alma Gottlieb, Mariano Rosabal-Coto, Heidi Keller, Naomi Quinn, Marjorie Murray, Akira Takada, Marga Vicedo, Heidi Keller, Gabriel Scheidecker, Naomi Quinn, Mariano Rosabal-Coto, Marjorie Murray, Nandita Chaudhary, Gilda Morelli, Gabriel Scheidecker, Marga Vicedo, Akira Takada, Nandita Chaudhary, Alma Gottlieb

ecosystems of which they are a part, as well as in the availability and predictability of physical and social resources. The real-life problems that people must solve in their communities also differ, as do the ways in which they are approached and managed. Communities vary in how they are organized and in how community members relate to one another. Within communities, families differ in ways that often change with status, privilege, social class, wealth, ethnicity/race, and religion. Within and across generations, people react to community expectations and create new ones. Despite this heterogeneity, all communities have in common variation and change and thus must be viewed as dynamic systems, responsive to both the opportunities and the constraints that people encounter in their everyday lives.

Given the many ways that families and communities diverge, is it reasonable to expect that there is just one “best” way to care for infants and young children that will promote their ability to survive and thrive in the communities of which they are a part? We pose this question because attachment theorists propose a view of care for all children, worldwide, and describe the role that this care plays in attachment relationships and later development (Mesman et al. 2015). These theorists posit that typically developing children form attachment relationships in the same way and for the same reasons. They identify patterns of care and attachment relationships, the relation between the two, and the implications of both for healthy development.

Attachment theory has been widely accepted by scholars as well as the general educated public in many nations since Bowlby’s original formulation. This most likely transpired because theorists claimed support from a multidisciplinary platform that drew from evolutionary biology, animal behavior, psychiatry, neuroscience, and psychological research on non-Western communities (van IJzendoorn and Sagi-Schwartz 1999, 2008; Mikulincer and Shaver 2014). Today, attachment theory is psychology’s most influential theory of relatedness, setting standards for what constitutes healthy relationships for all people. The reach of attachment theory to real-life situations is impressive. Pediatricians are trained in the principles of attachment to identify problematic parent-child interactions in an effort to promote healthy ones. Educators use these principles to recognize and support children who are considered at risk for poor classroom learning. There are attachment-based therapeutic approaches for children, families, and couples. In addition, courts use attachment theory to make decisions regarding parental rights, and the cornerstone of international agencies’ programming for families and children is grounded in attachment theory.

Attachment theory has had its critics, but such views have largely been ignored (Mead 1962; Vicedo 2013, this volume). One reason is that the theory was safeguarded by generations of scholars who shared a deeply held philosophy of personhood, self, and human development. Another is that the theory was disseminated in the teaching and research of generations of students educated in diverse fields of study, as well as in the practice of professionals.

Increasingly, however, attachment theory is being questioned. The break from the main tenets of attachment theory began (a) when anthropologists, cultural psychologists, historians, and scholars in related disciplines drew attention to the diverse nature of infants' and young children's care experiences, as well as the cultural and ecological processes underlying them (for summaries, see Quinn and Mageo 2013; Otto and Keller 2014) and (b) when scholars from places not well represented in the attachment research community voiced concern about the global application of culture-specific patterns of care and relationships (Chaudhary 2004; Nsamenang 2006). But these challenges were not widely recognized until recently.

Attachment theorists acknowledge the cultural and contextual nature of people's lives, and the role of these factors in close relationships. For example, certain types of otherwise problematic attachments are considered adaptive under certain conditions, such as when parents are unable or unwilling to invest emotionally in, or care for, their infants. The extent to which infants experience separation from the people who care for them in everyday life is also taken into account when their distress is interpreted in the procedure designed by these scholars to study attachment. Yet these accommodations, while enabling a more nuanced view of attachment, remain grounded in the main tenets of attachment theory (Morelli and Henry 2013). As such, we view them as deeply concerning.

In this chapter we argue that an alternative approach to classic attachment theory and research needs to be taken. We agree that the ability to develop social relationships is part of our human legacy, representing a universal need to belong to social groups and to form meaningful ties with others (Baumeister and Leary 1995; Keller 2015). We agree, as well, that children form attachments to people in relationships that are distinct in particular ways. However, our approach insists on the central role of sociocultural processes and structures, in dynamic interplay with ecological processes, in the relational opportunities available to children and in the attachments they develop. We make our case in the following way: We introduce key aspects of attachment theory to demonstrate its support of species-wide, attachment-related processes. We consider examples of children's early care and relational experiences from diverse communities that call this position into question. We present a standpoint on ethics related to personhood and self to understand systematic variation across communities in these experiences, and we present a conceptual model that situates these ethics in an ecocultural frame (Keller and Kärtner 2013). Finally, we discuss social and relational networks, including attachments, as well as features and contexts of care that are important for distinguishing relationships as attachments.

Our conclusion is that children are cared for in culturally defined and ecological responsive ways, and this care is the basis for the relationships they develop. Attachment theory and research must be nimble enough to accommodate the diversity in the realities of children's lives. As long as attachment

theory does not take this imperative seriously, real-world application of attachment theory is deeply concerning. We examine these concerns separately in Chapter 14 (this volume).

Classic Attachment Research and Theory

Attachment theory is about infant survival and the evolution of child behaviors that elicited care essential for this fundamental goal (Bowlby 1958, 1969, 1982). Bowlby was interested in the physical safety function of attachment behaviors (e.g., crying). He reasoned that when a young child is afraid or distressed, it is in the child's best interest to act in ways that bring him into the protective solicitude of his primary caregiver, most likely his biological mother. With age, the child increasingly directs attachment behaviors toward his mother, as she is the person who responds most readily in appropriate ways to him; this makes the child feel safe in her presence in times of need. Based on consistent repetition of these types of experiences, the child forms an attachment to his mother.¹

Attachment theory is also about infant psychological development. Bowlby, with his colleague Mary Ainsworth, was interested in the psychological security function of the attachment system. The attachment relationship reflects an emotional tie of a child to his mother; the child loves his mother and typically greets her with joy. The child feels sufficiently safe in his mother's presence, assured that he can return to her for comfort and protection if necessary. This "felt security" provides the child with the support needed to explore the environment on his own, at a distance from others, with confidence, and to master the physical and social world. Mothers act both as a safe haven and as a secure base from which their child can explore; in effect, mothers are the lynchpins in the link between, and the balancing of, the attachment and exploration system for the child (Ainsworth and Bowlby 1991).

It did not take long for interests in the psychological function of attachment to dominate theory and research (LeVine and Norman 2001:86; Vicedo 2017). Questions about individual differences in children's attachment relationships were studied using a laboratory procedure to assess how well children were able to organize attachment and exploration behaviors during a period of moderately escalating distress designed to activate the attachment system. In this laboratory procedure, the Strange Situation, children are repeatedly separated from their caregivers—most often their mothers—for a brief period of time, and are either left on their own or with a stranger. Children who are secure in their attachment relationships are comforted by their mother's return and are

¹ Bowlby (1982) acknowledged that the person to whom a child develops an attachment relationship depends on who cares for the child in particular ways. This caregiver did not have to be the biological mother, although references made by Bowlby to this caregiver are most always the mother.

then able to use their mothers as a secure base from which to explore. Children who are insecure in their attachment relationships are unable to do this. The difference between securely and insecurely attached children was attributed to differences in children's history of sensitive maternal care (Ainsworth et al. 1978; Cassidy and Shaver 2008).²

The sensitive care that fosters security in attachment relationships is care that responds to a child's explicit positive and negative signals. It is exemplified by caregivers who

- are appropriately receptive and contingent in their response to the child's signals,
- follow the child's lead to structure and support the child's endeavors in unobtrusive and fittingly challenging ways,
- respect the child as a separate person with a will of his/her own,
- rely on encouragement, praise, and reasoning to motivate the child,
- are affectionate and affectively engaging, and
- encourage expressions of positive emotionality.

This care is considered the gold standard by which all care, worldwide, is to be compared and evaluated. When children are cared for in these ways, they develop a sense of themselves as being in control, competent, and worthy of help—assured that help will be available if needed (Bowlby 1980). When children are not cared for in these ways, they feel less secure in the presence of their mothers and are unable to achieve the same confidence in themselves or in others, or mastery of the environment. They are at risk for developing behavioral problems later in life (Thompson 2006; Weinfeld et al. 2008).

The way that attachment theorists conceptualize sensitive care, secure attachment relationships, and children's competencies is based largely on their understanding of well-educated, middle- to high-income, urban-dwelling families of European ancestry (living in postindustrial Western societies, sometimes referred to as "Western" families). The values of such families typically sensitize children to personal preference and choice, as well as to internal psychological qualities; these principles are important to the way that people relate to others and in the way that people experience others in relationships with them (Shweder et al. 1997; Suh 2000; Raeff 2006; Kitayama et al. 2007; Markus and Kitayama 2010; Keller and Kärtner 2013). This approach to representing "self" in relationships reflects specific cultural philosophies of personhood and self, which children develop in ways described by attachment theorists. Yet when one looks around the globe, one discovers that other philosophies of the person and the self exist, and these support other ways to care for children that

² Sensitive care only modestly predicts attachment security (de Wolff and van IJzendoorn 1997). Some researchers also consider mother's ability to verbalize and interpret the mental and psychological states of their child (e.g., wishes, preferences, and intentions), and to treat the child as an intentional agent (see Sharp and Fonagy 2008).

are consistent with the philosophies. Below, we consider a selection of these philosophies and the corresponding childcare systems.

Representing Others and Self in Relationships

Children's day-to-day social engagements provide them with the opportunities to learn what it means to be an acceptable, good, and moral person as well as how to organize, interpret, and make sense of experiences about the world (Shweder et al. 2000). These senses of personhood and self are fundamentally relational in character, cultural in origin, and significant to the attachments that children develop. Personhood is a social status granted by others to individuals who meet culturally constituted standards for legitimacy in their community. When so designated, a person is considered a social being with moral status who is obligated to act (has agency) in moral ways toward others, as others are obligated to act in moral ways toward this person. Personhood standards vary from one community to the next; in many places, a strong emphasis is placed on qualities and attributes that indicate readiness to assume one's role and responsibilities in the social world as a relational being. For the Mapuche, an indigenous people of southcentral Chile and southwestern Argentina, to be *che* (a "person") means being capable of productive sociality: to be a giver and receiver (Course 2011). The idea of giving as a condition of personhood is observed in many other communities, including the Baining of Melanesia (Harris 1989). Baining infants and elderly are not considered persons because they are not able to give food. For them, personhood is transient: it is something acquired and then withdrawn.

Alongside relatedness-based notions of personhood are notions that emphasize autonomy (choice and volition). The individuality of Mapuche children, for instance, is recognized at an early age (Sadler and Obach 2006) as exemplified by the Mapuche word *püchiche*, which literally means "little person" (Quidel and Pichinao 2002; Sadler and Obach 2006; Course 2011; Williamson et al. 2012; G. Llanquino, pers. comm.). Mapuche children are considered as being able to manifest and even (sometimes) impose their will on adults (Sadler and Obach 2006; Williamson et al. 2012). In other words, "early socialization is predominantly respectful of their *che* (personhood)" (Williamson et al. 2012:140).

Whereas *personhood*, in general terms, designates a social agent with a moral career (i.e., progressive changes in a person's moral status) as part of the social order in a particular society, *self* designates individual awareness of a unique identity as the knower (percipient) and the known (perceived) (Mauss 1985; Walker 2013). Although the two concepts are somewhat distinguishable, together they foster a person's understanding of who s/he is within the context of relationships with others. The self is an inherently socially constituted, relational construct that may only be understood in the light of an "other than the

self.” A child’s sense of self develops by participating in the everyday life of the community. This participation is organized, in part, by the meanings and activities that community members share and convey to children, and which are differently appropriated by communities with a common cultural identity. In this way, communities adapt to local circumstances. Under most circumstances, however, communities hold onto tried-and-true practices (i.e., cultural models) because the risk of independent (individual) solutions to recurring challenges (which may fail) is too costly (Quinn 2005).

In the rich history of research and theorizing on conceptions of self in cultural contexts (Hallowell 1955; Howard 1985; White and Kirkpatrick 1985; Markus and Kitayama 1991; Holland 1992a; Quinn 2003; Kagitcibasi 2005; Wang and Chaudhary 2005), there is agreement that the “culturally constituted behavioral environment” forms the self in different ways (Hallowell 1955:87; see also White and Kirkpatrick 1985). Ideas about self put forward by Markus and Kitayama (1991) set in motion a wave of research that initially supported their thesis but later questioned it. They claimed that people constructed notions of self in two fundamentally different ways: an independent self (e.g., autonomy/agency) and an interdependent self (e.g., relatedness-heteronomous/ agentic). With time, more nuanced conceptualizations of self were advanced, but these continued to juxtapose the independent and interdependent notions of self.

There are other, quite different, views of self that acknowledge autonomy and relatedness as equally important, coexisting human needs that are part of any human action and situation. Individuals need communion as well as agency (Bakan 1966), love and belongingness as well as self-actualization (Maslow 1968), and closeness and interdependence with others as well as control over their own lives (Ryan and Deci 2000). These human needs are conceptualized in culture-specific forms and are necessary for a person’s health and well-being. Keller and colleagues offer a way to conceptualize the coexisting needs of autonomy and relatedness that acknowledges their cultural nature (Keller 2012; Keller and Kärtner 2013; Keller 2016b). They propose that children are sensitized in different ways to the relevance, experience, and expression of each of these human needs. The ways in which this happens depend on culturally mediated, contextually based cultural regularities in children’s experiences with others, which correlate closely with certain sociodemographic variables.

According to Keller and colleagues, one sociodemographic cluster represents educated (especially mothers), urban, middle- and upper-middle-class families who live in postindustrial economies. In these families, children’s experiences sensitize them to value personal preferences, choice, and personal qualities such as traits, attributes, and talents. These children’s autonomy is psychological in nature, based on self-reflection that centers on personal desires, wishes, and intentions. Autonomy underlies conceptions of relatedness such that relationships are defined and negotiated from the child’s point of view. This self-conscious and self-contained child is the cultural ideal for

families from this cluster, and this way of thinking coincides with the conception of autonomy and relatedness expressed in attachment theory.

A second cluster is made up of rural families, with little or no formal education (especially mothers), who live in subsistence economies. In these families, children's experiences sensitize them to group expectations as well as social roles and responsibilities. Relatedness is hierarchical and underlies conceptions of autonomy as self-regulated actions that meet socially constituted obligations and fulfill community responsibilities. For example, among the Mapuche, children are granted personhood status when they are able to give food (meeting social expectations). They are also expected to help with family chores (e.g., looking for firewood, taking care of animals) in the proper way, without having to be reminded.

Even though we associate particular conceptions of autonomy and relatedness with particular sociodemographic clusters, rapid social change (resulting from both global flows of information and people, as well as from internal processes such as civil war) may alter this association. For instance, after the civil war in highland Peru, adults in Quechua-speaking communities continue to expect children to contribute to the well-being of their families, animals, and communities from a young age, just as they have for generations, by observing and imitating adult work. However, a strong national emphasis on public education has greatly altered the daily routine of children. Even illiterate grandparents who do not speak Spanish encourage their grandchildren to exert their best efforts to do well at school, as this is perceived to be necessary to excel in life and get good jobs (Robins 2017). Intentionally combining components of tradition and modernity is fast becoming "the new normal" in many communities across the Global South. As people in communities adapt to accommodate such changes, we may see shifts in how autonomy and relatedness needs are met as well as concomitant shifts in children's care.

Conceptualizing Children's Care and the Diversity of Care Practices

At some fundamental level, the tasks of caring for children are the same all over the world (Benedict 1955; LeVine 1974). Most caregivers want children to survive and thrive in the communities in which these children live. This means keeping children healthy and safe as well as providing them with opportunities to learn about and from their social and physical environments in culturally organized ways. Yet the way these tasks are both defined and carried out varies, even as they are considered necessary and commonsensical in any given community (Murray 2013; Gottlieb and DeLoache 2017).

Most people care for children in the best way they know, taking into consideration (consciously or not) many factors: local ecological conditions (Keller 2007, 2016b); available economic, medical, social, and other resources

(LeVine et al. 1994); competing demands (Rogoff 2003); relationship to and history with the child (Lancy 2015); and the child's age, health status, and temperament (Scheper-Hughes 2014). The complex interplay of such factors has been represented conceptually in different ways (LeVine 1974; Whiting and Whiting 1975; Weisner 1984; Super and Harkness 1986). The *ecocultural model*, as described by Keller and Kärtner (2013), is most useful for our purposes as it considers how the dynamic co-action of the physical environment, ecosocial context, and caregiving beliefs and practices relate to children's development. The physical environment (e.g., climate, water and food supply) significantly contributes to the ecosocial context of a community; that is, to family structure (e.g., extended, nuclear) and ways of making a living (e.g., subsistence, cash-based economy). Parental education is a key characteristic of this context. The ecosocial context, in turn, significantly contributes to a community's system of care: it shapes socialization goals (what caregivers want for children), ethnotheories (ideas about how best to achieve goals), and practices (what caregivers actually do). These constituent parts, in dynamic interplay, are important to psychological processes that underlie children's developing conceptions of autonomy and relatedness.

This model clarifies that children's care and development are local phenomena that reflect the particulars of a community's physical environment and ecosocial structures in relation to the community's organized set of practices, beliefs, and traditions. To illustrate, let us consider the case of child care among the Ju|'hoan (Takada 2005; Konner 2010; Takada 2010): a San group living in the Kalahari Desert in southern Africa—a harsh environment covered mostly with brush and grassy hills, where water is scarce for most of the year, food is unpredictable, and temperatures range from freezing to blistering hot. In the past, these people subsisted by hunting and gathering, traveling long distances on any given day. Child care among the Ju|'hoan protects infants from the vicissitudes of this environment in a way that allows people to manage other demands. For example, Ju|'hoan infants live their days in the arms and laps, and on the backs of people. This practice buffers infants from harm on the ground and allows them to nurse easily and stay hydrated. It also calms infants (Barr 1990; Barr et al. 1991; Esposito et al. 2015) and keeps their distress at low levels. This is important because distress is energetically demanding (Rao et al. 1993) and can compromise infant health if it persists. Moreover, it is easier for caregivers to take content infants with them on gathering and other excursions, which they often do. At the same time, caregivers encourage infant walking at an early age. The Ju|'hoan believe that a child who is not taught to sit, stand, and walk will never perform these behaviors, and the bones of the child's back will remain “soft” unless teaching occurs (Konner 1973, 1976). Children who are able to follow caregivers on their own on foraging trips are less of a burden than are children who must be carried.

The study of hunter-gatherers elsewhere shows similarities as well as differences in child care (Konner 2010). The !Xun, for example, is a post-foraging

Namibian group of San that shows considerable sociocultural similarity to the Ju|'hoan (Takada 2005, 2010, 2015). However, in contrast to Ju|'hoan children, !Xun children are weaned earlier, and caregivers are more likely to be siblings or cousins. This observation raises questions that merit further study: Why are these changes associated with a more sedentary lifestyle in the !Xun? What other changes occurred as a result? What do these changes mean for a child's social relationships?

The care of children from diverse communities around the world provides an important counterpoint to claims made by attachment theorists. The care described as sensitive by attachment theorists is different from that which is practiced by a large proportion of people in the world. Similarly, the competencies that this sensitive care fosters—sensitizing children to experience themselves as separate and distinct, with needs and desires of their own; to act based on what they think and believe; and to change their environment accordingly (Ainsworth 1976; Bretherton 1987)—are less important to many of the world's people. Instead, care that controls a child's actions, anticipates a child's needs, or dampens a child's emotional expressiveness describes the warm, responsive care practiced by most communities in the world.³ It orients children to others and fosters children's responsiveness to them. Children learn to see themselves as others see them, and this intensifies children's social connections and strengthens actions that maintain them. These actions are acts of obedience, compliance, conformity, proper demeanor, and respect (Harwood et al. 1995; Keller 2003; Quinn and Mageo 2013; Morelli et al. 2014; Otto and Keller 2014). Care such as this supports socially oriented notions of autonomy and relatedness grounded in meeting social obligations and responsibilities in contrast to care that supports self-oriented notions of autonomy and relatedness on which attachment theory is predicated. In what follows, we describe care practices that orient children to others, drawing on previous work (Morelli 2015).

Care that controls what children do is representative of a global pattern, but it does not meet the standards of care advocated by attachment theorists: to follow the child's lead and support the child in nonintrusive, unobtrusive, and fittingly challenging ways. In their study of 12 communities in India, Japan, Kenya, Liberia, Mexico, Philippines, and the United States, Whiting and Edwards (1988) noted that, except for U.S. mothers, all mothers ranked highest or second highest in training and controlling their children. (In these communities, people in all but the U.S. and Indian communities farmed for a living.) Similar findings have been reported for caregivers in other communities in Africa (LeVine et al. 1994; Keller 2003), East and South Asia (Chao and Tseng 2002; Rudy and Grusec 2006), the Middle East (Kagitcibasi 1970; Sharifzadeh 1998), South and Central America (Posada et al. 2002; Seidl-de-Moura et al.

³ The first time we reference a community, we include the community's geographic location and mode of subsistence, when known.

2012; Rogoff et al. 2015), and non-middle-class populations in the United States (Isapa et al. 2004).

In most of the world's cultures, controlling children is what good parents do. Chinese parents and parents in other Confucian cultures practice *guan* (governance): they care for and love their children by taking control, directing their behaviors, and placing demands on them (Tobin et al. 1989; Chao and Tseng 2002). Puerto Rican parents act in similar ways to teach children to be calm, attentive, and well-behaved (Carlson and Harwood 2003), as do Cameroonian Nso farming mothers, who teach children to show good manners and to share (Keller and Otto 2009; Keller et al. 2012). Balinese mothers intentionally provoke jealousy and even rage in their toddlers by breastfeeding and playing with other babies. They remain impassive to their toddlers' displays of emotion, as one way to teach these children to calm their own feelings of jealousy and promote self-restraint (Diener 2000). Bara pastoralists of Madagascar prefer calm children and see calm behavior in the presence of elders as a sign of respect (Scheidecker 2017).

In these communities, care includes expressions of warmth (Isapa et al. 2004; Schwarz et al. 2005; Halgunseth et al. 2006), which children experience in a positive way (Fracasso et al. 1994; Aviezer et al. 1999; Posada et al. 2002; Carlson and Harwood 2003; Isapa et al. 2004; Howes and Wishard Guerra 2009). Japanese and Korean adolescents perceive *guan* as a sign of parental acceptance and warmth (Chao and Tseng 2002), and Latina and Portuguese adolescents living in the United States in families with low incomes see directive care as affirming their parents' protection (Taylor 1996).

Care that anticipates children's needs is another way to care for children that does not meet attachment theorists' standards of contingent responsiveness to children's *explicit* signals. This practice of meeting a child's needs before or around the time they are expressed blurs the child's sense of self as distinct and separate from others and accentuates the group as the child's primary referent of action. Caregivers rely on situational cues, prior history, and the child's subtle signals—which are often nonverbal—to do this. This anticipatory care is observed in communities around the world: among Efe hunter-gatherers in the Democratic Republic of the Congo (Morelli et al. 2002a), the Nso (Keller and Otto 2009; Keller et al. 2012), Makassar farmers in Indonesia (Röttger-Rössler 2014), the Bara (Scheidecker 2017), Sinhala farmers and wage earners in Sri Lanka (Chapin 2013b), Yucatec Maya farmers (de León 1998), as well as across Japan (Rothbaum et al. 2006).

Care that dampens or discourages expressions of emotions (positive as well as negative) is different from care advocated by attachment theorists that responds to a child's overt positive and negative signals and encourages positive ones. Among the Chinese and other Asian peoples, intense emotions are considered immature and socially disruptive (Kitayama et al. 2004; Wang and Young 2010). Puerto Rican middle- and working-class mothers (Harwood et al. 1995) and Costa Rican mothers (Rosabal-Coto 2012) prefer calm,

well-behaved children as do the Gusii farmers of Kenya (LeVine 2004) and the Nso, who believe that a calm child fits best into its social group (Keller and Otto 2009). Whereas many caregivers address negative signals by responding to them (quickly), they tend to do the opposite with positive signals. In some communities, such as the Gusii, caregivers are relatively unresponsive to positive signals (e.g., to childish babbling).

These types of social-orienting practices are important to a child's developing sense of self as connected with others, as "a part of encompassing social relationships" (Markus and Kitayama 2010), and as "defined and made meaningful in respect to such others" (Kitayama et al. 2007). There are other similarly motivated practices that complement the ones described here.

Physical closeness: Holding and carrying children in the first year of life are common practices among subsistence-economy communities as well as in many other farming communities across much of Africa, Latin America, and Asia (Lancy 2015). In a study conducted among the agricultural Beng of Côte d'Ivoire, Gottlieb (2004) calculated that young children spend two-thirds of their daily nap time in physical contact with someone (whether on a moving back or a stationary lap), and children sleep with their mothers and older siblings until they are about ten or twelve years old (for boys and girls, respectively). In postindustrial societies, co-sleeping, co-bathing, and breastfeeding are common. The Japanese and Koreans describe this form of physical intimacy with children as *sukinshippu* and *seukinsip*, respectively (both terms for kinship). There is a tactile quality to this physical closeness (Röttger-Rössler 2014) that allows for the subtle and near imperceptible exchanges on which anticipatory responsiveness depends. It enables children and caregivers to rely regularly on nonverbal ways to communicate and, as a result, to coordinate their involvement in nonexclusive and socially nondisruptive ways (Morelli, Verhoef, and Anderson, pers. comm.).

When children are not in actual contact with others, they are kept physically close to them. Balinese mothers use fake fear expressions to keep their young children close (Bretherton 1992). Gusii and Hausa (shepherds in Nigeria) caregivers prevent children from crawling away (LeVine 2014). Japanese mothers stay close to their children (Ujiie and Miyake 1985; Rothbaum et al. 2000a). In some communities, such closeness is defined broadly to include not just close family members but larger social groups. In Beng villages, toddlers as young as two years old are encouraged to roam freely around the village, in the knowledge that all adults and older children will keep a watchful eye out for their safety (Gottlieb 2004).

Social exploration: Children explore with others close by and in social ways that differ from attachment theorists' notion of healthy exploration (i.e., solitary exploration of the physical environment at a distance from others). Japanese mothers are more likely to take advantage of social opportunities to direct their child's attention to the environment and to use toys for social engagement than are Euro-American mothers (Bornstein et al. 1990). Ju|'hoan

foragers (Bakeman et al. 1990), Wolof farmers (Senegal), Beng villagers (Gottlieb 2004), and Soninke and Toucouleur immigrants to Paris (Senegal, Mali, Mauritania) are all more likely to respond to children when they are engaged socially than when they are engaged with objects (Rabain-Jamin 1994). For these African immigrant children, activities are structured around people, whereas for native-born Parisian children, activities are centered on the exploration of inanimate objects.

Orienting children toward others: Some social-orienting practices may explicitly orient the child toward others. In many subsistence-economy communities, for example, children are positioned so that their gaze is directed outward when carried or sitting; this draws a child's attention to its surroundings. This practice is complemented by an expectation common to people in these communities: children learn by attending carefully to others in the absence of explicit instruction (Rogoff 2003; Rogoff et al. 2014). Efe and Mayan families (farmers and wage earners in Guatemala; Morelli et al. 2002b) as well as Costa Rican urban families (Kulks 1999) expect this of children.

Other practices orient children to social interdependencies by accentuating the social group. Teasing, shaming, and name-calling (Samoans, Samoan Islands, farmer-foragers; Mageo 2013), abrupt weaning (Pirahã, foragers, Amazon rainforest; Everett 2014), and withholding empathic attention (Bhubaneswar, India; Seymour 2013) are examples of these practices. They direct children away from individual relationships and toward the social group as a whole. In extreme cases, mothers may discourage infants from becoming too attached to them, as some Beng mothers do when they break the gaze of their infants toward them (Gottlieb 2004). Care and protection by many others instill in children a sense of dependence on them and the group, rather than on a single individual (whether the mother or anyone else), for meeting their needs (Everett 2014; Morelli et al. 2014). Beng mothers actively draw people to their babies, by applying beautiful paints and jewelry to their infants twice a day, to establish a pool of babysitters (Gottlieb 2004).

Still other social-orienting practices teach children to see the world as others do and to adjust to their reality accordingly, without reference to the child's own mental state as separate and distinct from the other (Kärtner et al. 2010a). Beng adults (Gottlieb 2014), Kaluli caregivers (farmer-foragers in Papua New Guinea; Ochs and Schieffelin 1984), and Mapuche mothers (Course 2011) speak for their children. Kaluli mothers also teach children what to say.

Social-orienting practices such as these contrast with self-orienting practices that are important to psychological autonomy and relatedness. Examples of self-orienting practices include:

- Keeping children physically separated from their caregivers (i.e., on their own and in their own space); this enables the type of exploration that attachment theorists emphasize.

- Encouraging talk as the major form of communication in face-to-face, dyadic orientation.
- Celebrating the child's accomplishments (e.g., through praise) and attributing them to the child's efforts.
- Negotiating with the child out of respect for the child's interests and needs.

Such self-orienting practices of care, and the attachments they foster, represent attachment theorists' notions of good care and healthy development. We take a very different view.

Attachments Conceptualized

In our view, the attachments that children develop are different from those proposed by attachment theorists. Our approach builds on the ecocultural model and conceptions of autonomy and relatedness as human needs: it places great importance on community conceptions of good care and good children, takes into account the ecosocial conditions that play a role in how these conceptions influence caregiving practices and thus a child's experience of care, and allows for flexibility in thinking about how attachments are expressed and the role they play for the child across both time and contexts. We begin our description of this way of thinking about attachments by calling to mind the provocative claim made by Shweder et al. (2000:219) that "the knowable world is incomplete if seen from any one point of view, incoherent if seen from all points of view at once, and empty if seen from nowhere in particular." Faced with these three alternatives, Shweder et al. opt for an incomplete or partial view of the world, and so do we. Our approach to attachments is partial in at least two ways: First, it identifies the basics of attachments but relies on the knowledge of a given community's practices and beliefs relevant to relationships, children, and their care to understand the attachments that children develop in that community. Second, it is a view in the making; both its conceptual and empirical foundations require further development.

Social Networks

Our conceptualization of attachments starts with social network theory. This approach appeals to us because it puts relationships at center stage for study. What is relevant to social network theorists is the structure of the network—the nature of a person's ties with people and the ties these people have with others—and the relation between network structure and the phenomenon of interest. Social ties are characterized by network size, the extent to which people know one another (density), the ability of the network to endure severance of ties (robustness), and more (Smith and Christakis 2008). The entire complex

of ties that provides a given network its structure has properties that are not explained by or present in the parts that make up the network. This theoretical approach has a wide reach. It is used, for example, to study issues as diverse as social cooperation (Nowak and Highfield 2011), social change (Lane et al. 2009), health behavior (Smith and Christakis 2008), health-care systems (Castellani et al. 2015), schools (Daly 2010), and terrorism (Krebs 2002).

The use of social network concepts in the study of children's relationships is most welcomed because they take us beyond the mother-child dyad to the complex interdependencies that characterize many children's relational systems (e.g., Levitt 2005; Lewis and Takahashi 2005; Rubin et al. 2009). Children are seen as participating in different social systems, for different reasons, and these social systems include people who know the child, as well as one another, in different ways and to varying degrees. These people, in line with social network theory, may be involved directly with children as partners in social activities or involved indirectly, which includes children watching them. The character and contexts of children's lives are inextricably linked to their social networks. In many ways, networks determine the physical, social, and psychological resources available to children, as well as what is required of them to gain access to these resources. A child's social network, for example, provides her with opportunities to watch, interact with, and learn about and from others. Reciprocally, the people in a child's network have the opportunity to watch and interact with the child, which may affect whether and how they invest in the child, including the child's care.

In most cases, a child inherits her first social network at birth.⁴ This first network may change from place to place at a given point in and over time (Smith and Christakis 2008). Many factors contribute to why a child's social network is the way it is at a particular time and place. One factor is the child's living arrangement, which partly reflects the family's residence practices (who lives near the family) and structure (who lives in the family). In an extended family structure, for example, the family unit goes beyond the nuclear family and typically includes grandparents, aunts, uncles, and cousins. This structure is common across many parts of Asia, the Middle East, Central and South America, and sub-Saharan Africa. In 2015, Child Trends (2015b) reported that more than 70% of families were extended families in South Africa; in India, Colombia, and Turkey this was true for 50%, 58%, and 58% of families, respectively (Scott et al. 2015).⁵ Yet, the makeup of extended families varies considerably within and across communities.

⁴ A child may inherit her first social network even before birth. For societies oriented around a philosophy of reincarnation, a "newborn" is seen as emerging from a previous life, where a former family has decided to allow the child to be born. In such a scenario, childcare practices revolve around the parents of "this life" paying micro-attention to the infant's momentary needs to discourage the child from "returning" to the previous family of the "afterlife" (Gottlieb 2004).

⁵ This report does not include data from many African countries and may under represent the percent of extended families as a result.

The living arrangements of children in the United States and in many European countries (in particular, northwestern Europe) differ from the regions just described. Today, in many communities, for example, the typical family structure consists of mother, father, and dependent children. While this continues to be the image of what a family should be in these places, family arrangements increasingly have become diverse. In the 1960s in the United States, over 80% of children lived with two parents, whereas in 2015 about 70% did (Scott et al. 2015). Similar trends have been noted for the United Kingdom (Knipe 2015). This picture becomes more complicated when ethnicity and social class are considered (Sawhill 2013). In the United States, for example, Child Trends found that 34% of black, 60% of non-Hispanic white, and 83% of Asian children lived with two married parents.⁶

This consideration of social networks illustrates the substantial variability on a global level in children's social networks and, as a result, in children's opportunities to engage with different people and to secure resources from them. It also illustrates the importance for development of both the child's social network as a social unit and the child's individual relationships.

As increasingly more children (alone or with family) move from place to place because of conflict, persecution, economic inequality, or instability, their social networks are likely to become more fluid and dynamic. UNICEF (2016) estimates that nearly 50 million children live under transient conditions: of these, 31 million live outside their country of birth, including 11 million child refugees and asylum seekers. This unprecedented level of migration (across country borders) and displacement (within country borders) of children presses us to understand better the changes in these children's social and relational ties, and how these ties might support their positive development.

Relational Networks

The social networks in which children are involved provide them with the opportunity to develop relationships. How many relationships develop depends on whether the many or few individuals available to the child are willing and able to engage the child, and whether the child is willing and able to engage them.

At birth, children are able to take advantage of relationship opportunities, aided by basic neurobiological processes relevant for social affiliation that mature during fetal development. There is evidence, for example, that the perceptual biases of very young infants predispose them to direct their attention to social information. Newborns are more likely to attend to human speech than nonspeech sounds (Vouloumanos and Werker 2007), and to human faces and face-like stimuli than other stimuli (Slater and Quinn 2001; Farroni et

⁶ One reason for the low rate of married parents living with children among black families may be that single-parent families have deep roots in practices developed from the trans-Atlantic slave trade, which deliberately separated families.

al. 2005). The facial features most likely to interest newborns (e.g., upright compared to inverted faces, direct gaze compared to averted gaze) suggest that they are attracted to cues that indicate a person's readiness to engage with them (Farroni et al. 2005). These early biases and other nascent capabilities (e.g., the ability to orient gaze and body position toward people who arouse a child's interest) help the child connect socially with others (e.g., Reis et al. 2000; Lee et al. 2009). In addition, very young infants are able to sustain others' involvement and interest in them, for instance, by matching (reflexively) facial expressions and temporally coordinating nonverbal activities (e.g., body movements) with that of their social partners. Other ways develop with age, such as using "face, voice, hands, and entire body" (Shai and Fonagy 2014:187).

The nature of a child's first relationships is likely to differ from one person to the next, and this continues as the child matures. Why this is so is complicated. One explanation concerns the activities that characterize a child's involvement with others, since these activities are often related to role-based expectations. For example, among the Murik (marine foragers of Papua New Guinea), it is common for a mother's family to share completely in the care of her child during the first six months or so of a child's life (Barlow 2013). By comparison, a Makassar mother (subsistence farmers of Sulawesi, Indonesia) is usually her child's primary caregiver for the first four to six weeks of the child's life (Röttger-Rössler 2014). Yucatec Mayan adults do not usually play with children (Gaskins 1999), whereas middle-class educated U.S. adults do (Roopnarine 2011). The activities that children and partners engage in together are likely to change over time and place, as the needs of and demands on the child and her social partners change. These examples show that the socially distributive nature of children's engagements differs: in some settings, one or a few people may do most everything with and for the child; in others, many people may do most everything with and for the child; in still others, some variation in-between may exist (Quinn and Mageo 2013; Otto and Keller 2014). In addition, people may alternate with each other as the child's primary caregiver, and people's roles may change if caregiving is organized as a division of labor (Scheidecker 2017).

The incredible variation in relational opportunities for children and in the relationships they develop is striking but not surprising, given the cultural and ecological dimensions inherent in children's relationships, coupled with other features (e.g., a child's age, competencies, relationship histories). Even so, some researchers claim that there are features common to all of the relationships people develop across the life span, although some features may be more prominent than others for some relationships, for some people, at some time in their lives (e.g., Sutcliffe et al. 2012). While these features are cornerstones of all relationships, communities differ in how they are perceived and acted upon in everyday life, as earlier examples in this chapter demonstrate. Core features of relationships involve:

- Mutual influence: what social partners are doing and experiencing depends on and has consequences for one another (e.g., coordination, co-regulation, mutual responsiveness, and synchrony).
- Emotional connection between relational partners: what social partners feel for each other and how these feelings are communicated (e.g., emotional intensity, emotional regulation).
- Time: social partners have a history and anticipate a future; this allows them to act on expectations based on past experiences and future expectations.
- Holism: social partners are sensitive to patterns based on interactions that form the relationship context, and act based on the context as a whole.

The last feature, holism, is consistent with Hinde's views of relationships: "a relationship is more than its constituent interactions" (Hinde 1999:326). Thus the idea of holism extends beyond individual relationships to consider their complex interplay with the relational and social networks of which they are a part (Reis 2000; Brown and Brown 2006; Sutcliffe et al. 2012; Kuczynski et al. 2015).

What we learn from these features is that people in relationships matter to each other. They have mutual interests and feelings for one another. In addition, how people act toward each other in the present likely reflects a shared understanding of each other based on past experiences as well as a shared expectation that the relationship will continue for some time in the future. For these reasons, people in relationships are appropriately receptive and responsive to each other, and may act in other ways to sustain the relationship. Over time, people may develop a preference for each other (rendering one or both as special) and perhaps consider each other as "irreplaceable" (Brown and Brown 2006:7).

Relational attributes of preference and irreplaceability are likely to be more characteristic of relationships that people describe as "close" (e.g., Brown and Brown 2006). These relationships are likely to be more "affect laden" (Reis et al. 2000:845), and people in them are likely to show more mutual concern and caring for one another, for instance, by setting aside their own needs and interests to attend to the needs and interests of their relational partner (Brown and Brown 2006; Reis 2014). Promoting the well-being of one's relationship partner is important to trust building, and perceptions of a person as trustworthy are important to the development and maintenance of relationships distinguished as close.⁷

It is important to note that relationships, including ones considered "close," are not always positive and supportive. Multiple agendas, conflicting interests, and time constraints may alter the dynamics of a relationship. Concerning

⁷ The descriptor term "close," when applied to relationships, is conceptually vague (Reis et al. 2000:844), although it often implies an emotional intensity between relational partners. Given this, and the likelihood that "closeness" is differently experienced and expressed across communities, we use this term judiciously when describing relationships.

parents and infants, Trivers (1974) argued that offspring are selected to demand more than their parents are willing to give at different points in time, thus creating an inherent conflict in their relationship. Weaning is one such time. Breastfeeding is an energetically demanding activity (Dewey 1997), and at some point, mothers may decide to shift investments from their current child to the conception of another child (to increase reproductive success).⁸ This period is wrought with distress for many children the world over (and their parents as well), and Trivers claims that strategies such as temper tantrums may have evolved to help children sustain their mothers' investment in them. Mothers have devised different ways to curb their infants' interest in breastfeeding. Among the Efe, for example, mothers paint their breasts with bitter-tasting substances, make their breasts inaccessible, or send children to relatives in another camp for a period of time. Similar practices have been reported among the Jul'hoan (Shostak 1981) and the Nso (Yovsi and Keller 2003). The conflict that arises during weaning may be particularly intense if few people are available to care for the child.

Attachment Networks

Children develop relationships with people in their social networks. Over time, some or all of these relationships develop into relationships that are distinct (i.e., close) to the child in specific ways. Before we consider care that may make these relationships distinctive for children, we reflect on why people other than mothers care for children, and the psychological processes that support this care.

Caring for Children

Even though children's attachments develop in the context of relationships, most studies are paradoxically one-sided—concerned with what the child gets from the relationships (e.g., protection, security) and the child's qualities that may influence this (cf. Roisman et al. 2013; e.g., Bakermans-Kranenburg and van IJzendoorn 2015). Even research on the care of children approaches things from a child's point of view. Far fewer studies ask why people give care to children. Addressing this fundamental question could, however, broaden our understanding of attachment and help us learn more about the reasons behind attachment (e.g., integration into the social group), the distribution of attachments (e.g., many at the same time), and the commutable nature of attachments (e.g., communal, flexible). It could also help us learn more about competencies that make attachments likely (e.g., care that fosters a child's social nimbleness)

⁸ There are other reasons why mothers shift investments away from the child, including the child's risk of death (Scheper-Hughes 1992).

and the psychological processes that reflect and underlie them (e.g., autonomy, relatedness, theory of mind, empathy). Our grasp of these issues is partial at best, although research suggests that we are on the right track (Meehan and Hawks 2013; Morelli et al. 2014).

Our Human Legacy: What Evolutionary Accounts May Tell Us

We know from studies of extant hunter-gatherers that mothers alone are unable to meet the dietary demands of keeping themselves and their nutritionally dependent children healthy. Mothers require the help of others to do both (Hewlett and Lamb 2005; Hrdy 2005a; Crittenden and Marlowe 2008; Kramer and Ellison 2010; Meehan and Hawks 2013). A child's relatives are usually among the first to help with child care (Hamilton 1975; Briga et al. 2012), but the sharing of care goes well beyond kinship (Hamilton 1975; Briga et al. 2012), with residency playing an important role (Hill et al. 2011; Kramer and Greaves 2011).

The willingness of people to help mothers with child care is one way that mothers are able to manage the ecological and social uncertainties that threaten a child's ability to survive and thrive. The conditions that enable cooperative acts of care, as well as other cooperative acts, most likely trace back to the Paleolithic era,⁹ although this is not known for certain. Nevertheless, we consider evolutionary accounts of ancestral times because they offer a window into the genesis of social networks, give support to core relational features such as mutuality (synchrony), and provide clues to children's access to diverse relational and attachment opportunities.

Evolutionary accounts posit that ecological and social uncertainties during the Paleolithic era favored a suite of biological and psychological processes which made it possible for our ancestors to live in socially complex groups and thus to cope better with the unpredictable nature of their everyday lives. Group living, for instance, made it possible for people to extend "exchange partners" beyond the immediate family, which increased their chances of smoothing over day-to-day fluctuations in food and other resources. This, most likely, affected their reproductive success favorably.¹⁰ However, the demands of group

⁹ Archaeological records suggest the origins and development of early human culture during the Paleolithic era. We use "ancestral" as a shorthand notation to refer to this period.

¹⁰ Evolutionary claims consider the expression of psychological and biological processes in terms of reproductive success. This is most commonly defined as the number of offspring an individual produces to maturity. Fitness is the metric for measuring reproductive success in evolutionary theory. It is a complex concept with a contentious history (Beatty 1992; Paul 1992). "Individual fitness" was generally identified with the intuitive concept of reproductive success. Hamilton (1964) introduced the notion of "inclusive fitness." An individual's reproductive success also included the individual's effects on the reproductive success of relatives, weighted by the degree of genetic relatedness. In the mathematical theory of natural selection, genetic fitness is the measure of the contribution to the next generation of one genotype or one allele, relative to the contributions of other genotypes or alleles.

living were many and significant (van Vugt and Kameda 2014), and mechanisms may have evolved to offset the resulting transaction costs. Evolutionary theorists posit that people were likely to stay in a group if (a) they experienced positive emotions and moods in the group and felt socially connected to others (social bonds), (b) they felt loyal to the group, and (c) they could assess and act on threats to group cohesion. Group experiences such as these were possible if people were able to socially coordinate actions, meanings, and goals. The ability for synchronous exchanges helped to make this coordination possible: as a species, we are biased in both perception and attention toward synchrony, and we respond to synchronous interactions favorably (Ravignani 2015).

Parenthetically, we find intriguing the possibility that children evolved sensitivities to cues about the precariousness of resources, as suggested by the work of Chisholm (1996). Some of us would like to suggest that children may have evolved strategies to minimize the threats to their survival that these uncertainties posed. This may include the ability to solicit care broadly from people, and to develop multiple, simultaneous attachments based on the care that is experienced.

Further empirical evidence is needed before we are in a position to support a specific account of how human sociality evolved (see Vicedo, this volume). Even though further evidence for evolutionary claims would strengthen our views, our views do not rest on them.

Care, Today, the World Over

Across the world, people beyond mothers regularly care for young children. Keller and Chaudhary (this volume) address the prevalence of shared care, and in this discussion we draw on their work to highlight several points. First, the sharing of care is present in families from different economic backgrounds (e.g., subsistence, wage-based), with different levels of formal education (e.g., none, elementary school, high school, college), and with different family structures (e.g., nuclear, extended). Nevertheless, features of child care (who provides care, in what ways, and when) vary, depending on the interplay of factors such as views about good care, economic and other resources, religious values, work constraints, and broader political structures. In some places, relatives (especially grandparents, siblings, aunts, or uncles) provide the bulk of shared care (Weisner and Gallimore 1977; Raffety 2017; Schug 2017). In others, people unrelated to the child—neighboring children (Gottlieb 2004) or professionals (U.S. Census Bureau 2013)—provide the majority of daytime care. Shared care may take place early in a child’s life (beginning at birth) or later, and it may be all-encompassing (feeding, bathing, instructing) or limited (e.g., carrying). The essential point is that the sharing of care is practiced widely but in different ways and for different reasons (Sear 2016). Shared care offers

benefits to children, their parents, and to the people providing the care (Keller and Chaudhary, this volume).

Motives for Child Care

Why are some people willing, reliably so, to set aside personal needs, sometimes at a personal cost, to care for another person's child? To explore this question, we build on our consideration of evolutionary accounts of human sociality, with the caveat that only some of us see this as a fruitful endeavor to help understand contemporary childcare practices.

Costly investment in other people's children, with whom there is little or no genetic relatedness, posed at one time an evolutionary conundrum. This enigma was partly addressed when theorists considered the reproductive needs (e.g., protection, food) that people have in common. They reasoned that when people, alone, are not able to meet these needs—but people together are able to do so in the moment or sometime in the future—cooperative care makes evolutionary sense. How, exactly, people cooperate in the care of each other's children has a lot to do with culturally defined rules (Bogin et al. 2014). These rules are likely to adapt to changes in local conditions, with implications for people's investment in children (for similar arguments, see Bentley and Mace 2009; Quinn and Mageo 2013; Otto and Keller 2014).

Caring for the children of others may be in the reproductive interest of many, and this interest may continue as long as the relationships are beneficial to all. We presume that relationship features, such as mutual influence and emotional connection (noted earlier), are part of what makes these relationships (marked by costly investment) beneficial. If such features cease to exist, these relationships may continue, but differently (Brown and Brown 2006); perhaps as “a pool of recruits for more intense relationships” (Sutcliffe et al. 2012:159).

The benefits of cooperative care networks extend beyond relational partners to the group as a whole. Dunbar and Schultz (2007) suggest that a person's reproductive success depends more on long-term considerations made possible by the group: “relationships provide the key to fitness benefits at the group level” and “trickle-down benefits are reaped by the individual” (Dunbar and Schultz 2007:1346).

The Attachments Children Develop

Children may best learn about themselves, others, and the world around them by relying on people whom they trust to meet their needs. These people provide the child with resources to survive and thrive in the community of which the child is a part, and they do so in a way that fosters the child's attachments to them. Here we provide examples of the types of care, and reasons for care,

that contribute to a child's sense of a person as trustworthy, and thus to the child's attachments. When we speak about reasons for care, we tap into two interest areas of attachment theorists: (a) threats to the child that emotionally overwhelm the child in negative ways and (b) the function of care providers to help the child manage these threats and thus regulate emotions (e.g., by providing the child with a secure base or haven of safety) (e.g., van Rosmalen et al. 2014). We believe it is necessary to address both the care that a child solicits and the care that is given without apparent solicitation. Especially at a young age, children are unlikely to intuit all threats. Threats to social group function are an example of this, and social-orienting care practices described earlier may help children learn about them. As our thesis assumes that multiple attachments are common for children, we conclude with thoughts about why the idea of multiple attachments remains a knotty issue for attachment theorists.

Care and Attachments

We consider relational features (along the lines we described earlier) that many claim to be important for both individual relationships and social group living. Given the centrality of these features for human sociality, we propose that they may figure importantly in the attachments children develop. These features are unlikely to be sufficient, however, and may vary in importance across communities and contexts (e.g., McElwain and Booth-LaForce 2006). In addition to proposing features of care, we give examples of their expression in one or several communities.

One feature that stands out is mutual influence characterized by behavioral synchrony. Behavioral synchrony makes it possible for interacting partners to coordinate their behaviors in time, intentionally or not. In turn, this makes it possible for people to coordinate actions, meanings, and goals, and thus to benefit from the advantages of group living. Synchrony, however, is a construct for which there are many meanings: reciprocity, adaptation, shared affect, turn-taking, and more (Leclère et al. 2014). These depictions are not equally relevant globally across all communities. However, we are drawn to what these depictions of synchrony have in common: temporal concordance. Feldman (2012c, 2014) defines synchrony in this way for processes (e.g., non-verbal behaviors, arousal) that occur at the *same time* or *close in time*; in other words, as temporally matched interactions (Feldman 2007a:329). The very young child is sensitive to the temporal organization and rhythmic qualities of stimuli (Gratier 2003) in the first days of life (Shai and Fonagy 2014), and care providers take advantage of this sensitivity by coordinating what they do with the infant's state of arousal, thereby providing the infant with her first experience with social contingencies.

Synchrony extends beyond dyadic interactions. Gordon and Feldman (2008) studied triadic synchrony among educated, urban, middle-class mothers, fathers, and their five-month-old children during play episodes. They found that

infants were able to detect changes in the support each parent provided the other and changed their behavior (social focus) accordingly. Synchrony extends beyond temporal concordance between behavioral events. It takes place within and across behavioral *and* physiological systems, for each partner *and* among partners. What this suggests is that synchronous processes help create biobehavioral connections among people, which may be important to social group living (Feldman 2014).

Repeated experiences of synchrony are important to a child's development in many ways, including social and emotional regulation (e.g., Shai and Fonagy 2014). In addition, the familiarity these synchronous processes make possible with the style, manner, affective state, rhythms, pace, and so on of others (Feldman 2014:150); the positive feelings they engender (Watson 1985; Spoor and Kelly 2004); and the sense of "we" that they create (Baimel et al. 2015) may help distinguish relationships marked by repeated synchronous involvements over time in ways important for attachments.

Synchrony includes overlapping and sequential temporal concordance of events, which we believe are conceptually distinct and, for this reason, are differently important to attachments. To illustrate this point, we consider research on the temporal structure of events that sensitizes children to experience autonomy and relatedness in particular ways. Contingency responsiveness is an example of sequential concordance, thought to be particularly salient to infants in the early months of life because of their limited memory span. It takes place very quickly, within a second of the young infant's signal, and is not done consciously or deliberately. The overall contingent responsiveness of mothers across communities appears remarkably similar (Keller et al. 1999; Kärtner et al. 2008, 2010b). This is not surprising, given the intuitive nature of this reaction to infant signals.

The ways in which mothers are contingently responsive diverge with a child's age. Kärtner et al. (2010) examined mothers' auditory, proximal, and visual contingent responses to infant signals at age 4, 6, 8, 10, and 12 weeks in 20 families in Münster, Germany, and 24 rural Nso families in Kumbo, Cameroon. The extent to which mothers relied on each of these communicative modes was similar up to their infants' second month of life. After that, community differences were observed. Compared to Nso mothers, for example, the use of visual contingent responses by German mothers in face-to-face episodes increased with child age, while the use of proximal responses decreased (in line with experiences that foster psychological autonomy and relatedness). This trend was related, in part, to the growing reliance on this distal form of communication by these German mothers. In contrast Nso mothers relied on visual and proximal responses, which were relatively consistent over child age: low for visual responses (and significantly lower than the German sample) and high for proximal responses (in line with experiences that foster hierarchical relatedness and autonomy as self-regulated action that meet socially constituted obligations).

The temporal concordance of events can also be overlapping or simultaneous; Keller et al. (2008) refer to this as synchrony. This temporal structure, for example, can make it difficult for the child to take center stage, instead sensitizing the child to unity with others. Gratier (2003) studied vocal interactional patterns between mothers (middle-class, urban living, with at least one year of university-level education) and their two- to five-month-old infants in France, the United States, and India. Indian mothers and infants were more likely to participate in simultaneous vocalizations than were U.S. or French mothers, and this was seen in mothers of infants as young as two months of age. A similar pattern of simultaneous speech has been observed among Japanese compared to U.S. mother-infant dyads (Kajikawa et al. 2004).

There are additional features of care important to the attachments children develop that we would like to mention. One is the emotional connection *warmth* that people express to the child (and vice versa). Warmth is associated with positive feelings and it engenders affiliative experiences important to relationships and social group living (MacDonald 1992). It is not, however, inextricably linked to the care of children by others. For example, MacDonald (1992:762) notes that research on the Gusii strongly suggests that responsive parenting can take place in the absence of warmth and affection. Keller et al. (1999) confirmed this view by showing that contingent responsiveness and warmth are two separate dimensions of parenting. There are different ways to define warmth (e.g., positive affective tone, giving and expressing affection, pleasurable affective response) and to express warmth (e.g., affectionate contact, facial expressions, empathic affect, and mutual sharing of affective displays) (MacDonald 1992; Keller 2013b). This relates, in part, to the way that children's needs for autonomy and relatedness are understood by their caregivers and others. Warmth is often characterized by (a) physical contact and closeness, when relatedness is hierarchical and autonomy consists of self-regulated actions that meet socially constituted obligations, and by (b) facial expressions, when autonomy and relatedness are psychologically based.

Children must spend enough time with people to learn about them and the resources they are able and willing to provide. This is best learned when a child's experiences with and of others (directly or indirectly) are *reliably consistent, predictable, and repeated* over time. As children become familiar with the ways of others, they are better able to anticipate what others are likely to do and to plan for it (Sroufe 1979). This allows children to better manage their social involvements. There are different ways that people are able to create reliably consistent and predictable experiences for children. People can act in consistent ways toward a child, and this is the consistency often referenced in attachment research. However, people can also create consistency for the child by organizing their physical and social worlds in particular ways. The Efe are interesting in this regard. Efe infants are cared for by many people on any given day, yet the people who care for them often vary (Morelli et al. 2014). Here, consistency is not about who cares for the child, but rather a child's

experience of care. For example, when young Efe children (7–15 months of age) fuss, they do so only for about 25 seconds. This is because many people are willing to comfort the infant quickly (as quickly as the infant’s mother), and within seconds of a response, infants quiet down (Morelli et al. 2002a). There is a commonsense reason for similarities in the Efe child’s experiences of care. Efe live their lives in full view of one another most days for the entire day. People witness the care that others give and comment on it. Public displays of “good” care may also be one way that people maintain their relationships with others and their good standing in their social group. The following example supports this view: A ten-year-old girl was punished for dropping her infant brother while in her care. The girl was ostracized from the group, made to stand at the edge of the camp, and not allowed to return for several hours. All the while, she wailed.

This point about consistency is similar to Quinn’s view on the constancy of children’s experiences (Quinn 2005). She notes that for the child to experience constancy, the experience should be repeated with regularity and be undiluted by contradictory experiences that create confusion and ambiguity. This is possible through “habitual, embodied practices” which pattern “the child’s experience deliberately, vigilantly, and persistently” (Quinn 2005:481). Thus there are consistencies in the cultural world of children in matters of great importance created by a child’s wider community.

Threats and Reasons for Soliciting and Eliciting Care

Attachment theory claims that children need to feel safe in contexts of threat (Labile et al. 2015:37). Threats to a child’s solitary exploration of the physical world figure importantly in attachment theory, in part, because this type of exploration is tied intimately to the development of psychological forms of autonomy and relatedness. There are other threats that may undermine a child’s ability to learn about and participate fully in her community, and we consider some of them.

A young child’s state of arousal is an important mediator of her experiences with the social world. Feldman (2007b) notes, for example, that mothers use contingent responsiveness to heighten their infants’ alertness and are more likely to provide visual and tactile stimulation when their infants are alert. When the young child’s alert states are disrupted by crying and irritability, the child disengages socially from others and is less able to benefit from the opportunities that engagement provides. Furthermore, the distress indicated by these signals is metabolically costly (Rao et al. 1993). If either persists, the health of the child may be compromised.

Hunger, illness, fatigue, and pain are some of the reasons why young children cry and fuss. There are many ways to calm a child who is fussing or crying that go beyond attending to her physiological needs. Infants, for example, exhibit a calming response to being carried, and carrying may go beyond

quieting a crying child: its calming effect decreases a child's heart rate and voluntary movements (Esposito et al. 2015). We mention this because, in many communities, in the first years of life, children are carried for a good part of the day, often by older children (Weisner and Gallimore 1977; Gottlieb 2004).

Threats that elicit a child's distress are likely to evoke intense negative arousal and inhibit cortical and subcortical processes important, for example, to attention and memory (Fonagy et al. 2014). Fonagy et al. (2014) claim that attachments as sources of reassurance may preempt (or abate) the threat and, as a result, reduce the extent to which important neurobiological processes are disrupted. They posit that attachment evolved to change internal (e.g., stress) and external conditions (e.g., threats) associated with threats to infant survival (Fonagy et al. 2014:35).

Threats to a child's health pose great concern to the majority of communities worldwide yet, surprisingly, the relation between child care and health, and the attachments that children develop as a result, has been of little interest to attachment researchers. This in itself is puzzling since protection from malnutrition has been cited to be "the most dramatic demonstration of the adaptive value of attachment security" (van IJzendoorn and Sagi-Schwartz 2008:900). Perhaps the relative disinterest in health—specifically nutritional health—on the part of attachment theorists can be traced to Bowlby's claim that "food plays only a marginal part in the development and maintenance of attachment behavior" (Bowlby 1969:224).

Finally, *children have a need to belong*; that is, a need for relatedness. This need can be threatened as well, but differently for children who are sensitized to notions of autonomy and relatedness as psychological, or to notions of relatedness as hierarchical and autonomy as self-regulated actions that meet socially constituted obligations. Rothbaum et al. (2011) suggest that threats perceived by children who are sensitized in the first way relate to exploration and self-esteem; here, one purpose of attachments is to make exploration at a distance from others possible for children and to affirm their self-esteem and efficacy. For children who are sensitized in the second way, perceived threats relate to social rules and responsibilities; here, one purpose of attachments is to reassure children of their social place in the group or that it can be regained by correcting problematic behaviors. To elaborate on threats to social group living, we provide two examples.

The first concerns the discipline of Murik children (Barlow 2013) and we have chosen this example precisely because discipline lies outside of attachment theorists' thinking about attachments (Kuczynski et al. 2015). Murik children are disciplined by their mothers when they do not share food, and mothers are extremely consistent in enforcing this behavior. Others shame children into sharing by teasing them. Food sharing is something a good Murik person does; it is the "quintessential expression of relatedness, caring, and belonging" (Barlow 2013:177). Murik children are also disciplined for misbehaving (e.g., nursing when a child is considered too old). Mothers, however, do not typically

discipline their children for this reason; rather they invite senior figures to do so. Barlow (2013) claims that these seniors express their authority in this way, and, as a result, stress the age-grade system of control observed among these people. Children are often distressed when disciplined. Nonetheless, they are able to return quickly to their good standing in the social group (e.g., by being given the opportunity to share), and are often quickly comforted and reassured by the people who disciplined them. For Barlow (2013:174), ordinary discipline “guides attachment emotions and behavior along cultural norms” and many people have disciplinary functions.

The second example illustrates distancing practices used by Samoans (Mageo 2013). The purpose of these practices is to direct children—beginning around the age of three or four—away from affiliative relationships with individual people toward an affiliative relationship with the group as a whole. Samoans sensitize children to attend to others, to serve elders obediently, and to assume their proper status in the group. Children who demand attention, act in self-centered ways, or are aggressive toward others for individual gain threaten their tie to the group and are shamed, teased, or hit by adults and other children alike.

Children’s Trust of Others and Attachments

Children are likely to consider people trustworthy when (a) their experiences with people are appropriately contingent (synchronous), (b) people help children meet the threats they experience in a manner that engenders feelings of safety and security, and (c) these and other experiences take place in the steady-fast ways we have described. Feelings of trust are important for attachments to develop.

Children’s Multiple Attachments

Even though much of early attachment theory was informed by the care practices of U.S. middle-class, college-educated families, attachment theorists do not ignore the possibility that children may form attachments to others who care for them besides their mothers: “a child can also get attached to other caregivers who are in regular contact with the child and make it feel secure in times of need” (van Rosmalen et al. 2014:12). Views such as these, however, often safeguard the role of mother as the primary attachment figure: “Human babies, however, do not have an instinct that causes them to become attached to the first living thing they encounter. They get attached to the person *who cares for them the most* during the first few months of life. *In most cases, that is the mother*” (van Rosmalen et al. 2014:13, italics added for emphasis). Attachment theorists’ struggle with fully integrating multiple attachments into theory and research is also visible in other ways, such as their near-exclusive

selection of mothers for study. This struggle is not new and echoes Bowlby's uneasy relation with the same idea.

In the 1969 edition of *Attachment*, Bowlby acknowledged that infants may have more than one attachment figure based on who in the household cares for them (Bowlby 1969). However, he argued that infants developed attachment preferences in the first year of life based on the care they received. He reasoned that, at first, infants orient toward their social world in a nondiscriminatory way. Over time, based on differences in the ways that people "act in motherly ways" toward the infant (e.g., engage in lively social interaction and respond to signals and approaches), infants become selective in directing attachment behaviors (Bowlby 1969:306). He argued that mothers are biologically primed to behave in "motherly ways" and are likely to be better at behaving in these ways than are other people. Bowlby did not believe that plural attachments lessened the importance of each attachment, but rather that infants developed a *hierarchy of preferences*, in which the mother was normally the most preferred. Using the research of Schaffer and Emerson, he stressed that children's primary attachment to their mothers was likely to be more intense than the greater number of attachments these children developed in the first months of life (Bowlby 1969:202).

Bowlby's decision to give preference to mothers as children's first and primary attachment figures was likely based on the thinking of the day about mother-infant relationships, taken from psychoanalysis, psychiatry, and primatology (Plant 2010; Vicedo 2013, this volume). Bowlby, for example, interpreted Harry Harlow's work on rhesus monkeys as proving that maternal love and care was necessary for an infant's development (Vicedo 2011). However, Bowlby was selective in the research he used to advance his thesis. At the time of his writing in the 1960s, Bowlby knew of Harlow's work which suggested multiple, simultaneous attachments. For further discussion on Bowlby's selective use of Harlow's work, see Vicedo (2009, 2013).

Multiple Attachments, Multiple Questions, Multiple Implications

Our thesis in this chapter is that children may develop multiple attachments with different people, at the same time, because people can assume a variety of roles and responsibilities that matter for attachments. This gives children a lot of flexibility in who they are able to rely on to meet their various needs at any given time and over time, and it may allow children to seek out people who seem most able and willing to help them at a particular moment for a particular reason. The elasticity of children's experiences that are made possible by their varied social relationships raises questions for us and we offer our thoughts on some of them.

Currently, we know little about children's attachments beyond the mother, and what we do know draws primarily from procedures developed in studies of urban, educated, middle- to high-income families in postindustrial societies.

The care of children in these families typically fosters autonomy and relatedness as psychological. There are some exceptions, with field studies relying on orchestrated mother/caregiver-infant separations in which the infant is left with an unfamiliar adult (e.g., Kikuyu farmers of Kenya; Leiderman and Leiderman 1977), or on the natural comings and goings of mothers (e.g., Aka foragers of the Congo Basin Rainforest; Meehan and Hawks 2013). These studies suggest that in these particular communities, which practice multiple caregiving, infants develop multiple attachments. There is a need for more research on this issue, using people and communities not well represented in current studies, and methods adapted to community circumstances, including local values. Gaskins et al. (Chapter 13, this volume) discuss potential ways in which this can be done.

Not surprisingly, our discussions exposed more questions about children's attachments than they answered. To encourage future lines of research, these are summarized below for further consideration:

- Must the attachments children form be ranked in terms of preference (i.e., hierarchy of preferences)? We don't think so. We believe a child's relational networks, and the roles and responsibilities of people in these networks, play important roles in their lives. At one extreme is the situation where a child is cared for primarily by a single person (typically the biological mother). This child may develop a strong preference for this attachment figure. At the other extreme is a child cared for by many people who share roles and responsibilities. This child may develop a strong preference for many of these attachment figures.
- Must attachments involve dyadic regulatory systems? We don't think so. The breadth of some children's attachment networks, along with the multiparty and physical nature of their involvements (e.g., more than two people in physical contact simultaneously with the child) suggest that many people may play a role at the same time in similar or different ways in a child's regulatory processes. This may take place on a regular enough basis for it to be meaningful to the child.
- Can children's trust (and their sense of security) go beyond their caregivers to the group as a whole? We think so. If a child has trustworthy experiences with many people in her group, the child may extend these feelings of trust to others whom she knows less well but is willing to "test out." Along this line, Mesman et al. (2015:110) suggest that "the notion of secure base may be applied to a group experience....In cultural contexts where caregiving is characterized by a network of (simultaneous) caregivers, the secure base is provided by the total network, not by a single individual." We add that children with multiple attachments are unlikely to experience them as a collection of single attachments, but rather as an integrated system of relationships.

Final Reflections

The pluralistic approach to attachment proposed in this chapter is an alternative approach with substantive theoretical and empirical differences to classical attachment theory. We argue that no theories of child development and of the emotional needs of children can be developed without research from a wide range of communities. This research must rely on serious ethnographic work that investigates the role of the complex interplay of the physical environment; the ecosocial, political, and economic contexts; cultural views and practices (especially views of personhood and self) on children's care; and the relational and attachment networks children develop. For each community studied, methodological tools must be empirically sound, meaningful, and ethically respectful.

Our approach accommodates the great differences in children's living arrangements around the world without prejudice. We believe that it has the potential to revise current understanding of children's attachments for children from a diverse array of communities, including those disrupted by political and economic reasons, and to advance inquiry into the role of cumulative adversities on the well-being of children. Our approach seeks to comprehend supportive contributions of children's relational and attachment networks in the context of family and community, even as both change. Palestinian communities in the southern West Bank and Gaza provide one example of this. Many of these families share residences with relatives beyond the *'a'ila* [nuclear families]: "The atmosphere of these family-based communities is village-like, with families sharing meals if they live in the same building, and women helping each other with domestic responsibilities" (Akesson 2017:96). Within such settings, a child's network of relationships offers a source of great strength and offsets the unpredictable, often violent circumstances related to military occupation.

As we discuss in Chapter 14 (this volume), scientific methods need to engage with the diverse realities of children's lives to complement knowledge reached experimentally in psychological laboratories. Real communities are dynamic and ever-changing systems. Our science should be as well. Many of the ideas presented here may be modified by future research. We hope that is the case. Equally, however, we hope that the methodological imperative to erect general theories based on empirical research takes culture seriously.