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Attachment and Culture

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What is This?

Attachment and Culture

Heidi Keller[1]

Abstract

This article proposes to reconceptualize attachment theory as a culture-sensitive framework. First the seminal contribution of John Bowlby and Mary Ainsworth are recognized in proposing a new paradigm for understanding children's development, synthesizing the interdisciplinary knowledge of relationship formation present during the 1950s (Bowlby) and developing a fieldwork approach in combination with quasi-experimental procedures in the laboratory (Ainsworth). It is argued that students of attachment theory have expanded the framework with respect to the intergenerational transmission and the organizational nature of attachment, relations with psychopathology and clinical applications, and its psychophysiological foundation. It is further argued that attachment theorists were not responsive to developments in evolutionary sciences and cultural/anthropological approaches of parenting and child development. From an evolutionary perspective, contextual variability is crucial to meet the purpose of adaptation. It is demonstrated that the assumptions of monotropy, the conception of stranger anxiety, as well as the definition of attachment in mainstream attachment research are in line with the conception of psychological autonomy, adaptive for Western middle-class, but deviate from the cultural values of many non-Western and mainly rural ecosocial environments. In the concluding paragraph, a strategy is proposed for an empirical research program that would contribute to the cultural foundation of attachment.

Keywords

cultural psychology, developmental: biological, family/childrearing

The formulation of attachment theory was an important milestone in the scientific history of the study of human development. The publication of John Bowlby's trilogy of "Attachment and Loss," with the first volume "Attachment" being published in 1969, marked the beginning of an unprecedented success story of a scientific theory that influenced not only basic research but also various fields of application substantially. More than 20,000 journal articles on attachment are listed in EBSCO, an international electronic research database (see also Gottlieb, in press). Counseling families with small children is mainly based on attachment theory as are many family support programs, like, for example, STEEP (for steps toward effective, enjoyable parenting) (Erickson & Egeland, 2004). Policy recommendations and programs are based on assumptions

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of attachment theory (see Keller, in press). During recent years also, early educational programs more and more rely on attachment relationships (e.g., Kennedy & Kennedy, 2004).

It is a characteristic of new paradigms that they detach from previously held views. For Bowlby's attachment theory, this applies with respect to different perspectives. The new understanding of relationship formation started to abandon the Freudian perspectives of development. Freud (1940/1964) and particularly the psychoanalyst René Spitz (1965) regarded the development of attachment to the mother as a co-occurring phenomenon of an infant's pleasure in nursing during the so-called "oral stage" (see also Johow & Voland, in press). This change in perspective is based on the consideration of an evolutionary foundation of attachment.

Besides the work of Charles Darwin (1859), the experiments that Harry Harlow conducted with chimpanzees in his laboratory in Madison, Wisconsin, especially became instrumental. Harlow (1958) convincingly demonstrated that deprived chimpanzee infants preferred a wire mother that was covered with cloth over a wire mother that provided food. Thus, so-called contact comfort was more important for the infant than the hunger drive. From a very different theoretical perspective, learning theorists, the mainstream psychologists at that time, held the view that the provision with food through nursing acts as a secondary reinforcer and therefore defines the mother as the primary target of infant's attachment relationships. However, learning theories in this broad understanding failed to explain the fact that infants whose negative emotionality is immediately attended to consequently do cry less, where learning theory would predict that they would cry more because of the reinforcing nature of the attention that the infant elicits through crying. This example became the focus of a famous controversy between Jack Gewirtz and Mary Ainsworth (see Ainsworth & Bell, 1977; Gewirtz & Boyd, 1977). The third dimension expressing the zeitgeist of that time was the emphasis on the primacy of cognitive development based on the recognition of the competent infant (see Osofsky, 1987; Stone Smith, & Murphy, 1973, for overviews at that time).

However, long-term observations of infants inspired through ethological approaches revealed undoubtedly that the view of the infant as a "blooming buzzing confusion" that William James (1890) had described and that was prevalent through the 1950s was ignorant of the tremendous competencies of attention, information processing, and memory of infants from Day 1 onward (e.g., Ashcraft, 2009; Domsch, Lohaus, & Thomas, 2010). The competent infant was born with innate competencies to process environmental information and interact with the environment. The discovery of innate competences is still ongoing (Spelke, 1991).

John Bowlby was the first to synthesize these different approaches with a systemic understanding of the mother–child bond. His clinical observations as a child psychiatrist in the Tavistock clinic in London dealt with the devastating consequences of the Second World War in terms of separation and loss for family functioning and children's development. He came to emphasize that the mutual motivations of the mother and the child to be near each other represented a behavioral system. He interpreted this system as a biologically functional behavioral pattern with the purpose of survival and reproduction.

Mary Ainsworth, a Canadian psychologist, joined John Bowlby in London in the early 1950s, where they started a fruitful long-term collaborative relationship. She was the first to empirically study attachment and its development, and she focused her attention on interindividual differences. Following her husband to Uganda, she observed babies and their caregivers in their natural environment (Ainsworth, 1967). She started a longitudinal ethnographic study in Kampala in 1954/1955 describing childrearing patterns between mothers and infants as well as various other related issues. She condensed her observational protocols in describing three groups of infants' attachment behaviors: securely attached ($N = 16$), insecurely attached ($N = 7$), and nonattached infants ($N = 5$). She concluded that maternal sensitivity is the crucial determinant of attachment quality, which she later defined as the "ability to perceive and interpret accurately the signals and

communications in the infant's behavior and, given this understanding, to respond to them appropriately and promptly" (Ainsworth, Bell, & Stayton, 1974, p. 127).

Being back in the United States, Mary Ainsworth started a longitudinal study in Baltimore in order to systematically examine relations between maternal behavior and later infant attachment. She visited mothers and their newborns once every month at home for a period of 1 year (Ainsworth, Blehar, Waters, & Wall, 1978). However, she could not replicate the observations that she had made in the Ugandan families. The "Baltimore babies were used to having their mothers come and go, come and go, and they were much less likely to cry when their mother left the room" (Karen, 1994, p. 146).

Ainsworth hoped that an unfamiliar setting such as a university laboratory might raise the threshold of threat and prompt the U.S. children to display similar attachment behaviors as the Ugandan babies did at home. Thereby she created the most prominent laboratory assessment of developmental psychology, the Standardized Strange Situation Procedure (Ainsworth et al., 1978; Karen, 1994). In this procedure, a child is observed in the laboratory for 20 minutes while the mother and a stranger enter and leave the room alternately under conditions of increasing stress. Observing the child's responses with regard to the separation and reunion with the mother and the amount of the child's exploration revealed the expected differences; children are categorized into three groups: securely attached, insecurely avoidant, and insecurely ambivalent attached. Later, Mary Main added a fourth category, the disorganized attachment (Main & Solomon, 1986, 1990), which is characterized through bizarre infant behaviors like freezing, crouching on the floor, and other depressed behaviors in the presence of the caregiver during the Strange Situation. Disorganized attachment is considered to be an early predictor for the development of psychopathology from the preschool period onward (Henninghausen & Lyons-Ruth, 2005).

Variability in the U.S. infants' behaviors in the Strange Situation could be linked to the former home observations and yielded relationships with maternal sensitivity. Ainsworth's classification of 106 U.S. children set the benchmark for later research, constituting the "American Standard Distribution": 66% secure, 12% avoidant, and 22% resistant (Ainsworth et al., 1978).

In the following years, students of Ainsworth and their students expanded attachment theory into different domains:

- intergenerational transmission of attachment,
- organizational approach of attachment for relationships in general,
- relation with psychopathology and clinical application, and
- psychophysiology of attachment.

In the following paragraphs, the development in these fields will be briefly characterized.

The Intergenerational Transmission of Attachment

Interest in the intergenerational transmission of attachment was inspired by the study of adult attachment patterns within their family of origin as assessed by the adult attachment interview (George, Kaplan, & Main, 1996; Main & Goldwyn, 1998). Parents were asked open-ended questions about their attachment relations in childhood and about the influence of these early relations on their own development. Three distinct patterns of responding were identified: *Autonomous-secure* parents gave a clear and coherent account of early attachments (whether these had been satisfying or not); *preoccupied* parents spoke of many conflicted childhood memories about attachment but did not draw them together into an organized, consistent picture; and finally, *dismissing* parents were characterized by an inability to remember much about attachment relations in childhood. In some of the dismissing interviews, parents' parents were

idealized on a general level, but influences of early attachment experiences on later development were denied. Specific memories, when they did occur, suggested episodes of rejection.

Adult Attachment Interview classifications are assumed to correspond to Ainsworth's secure, ambivalent, and avoidant infant patterns. Furthermore, adult patterns were empirically correlated with infant patterns (e.g., a dismissing parent tended to have an avoidant infant; Bretherton, 1992; Fonagy, Steele, & Steele, 1991; Main & Goldwyn, 1998; Ward et al., 1990). However, the actual process of transmission of attachment from one generation to the next remained largely unclear (e.g., Fonagy, Gergely, Jurist, & Target, 2002), so that the "transmission gap" became a prominent research topic. Recently, the maternal mind-mindedness, or reflective functioning (Fonagy, Target, & Steele, 1998) and narrative conversational discourses (Oppenheim & Waters, 1995; i.e., the understanding and verbalizing of mental states) became the top candidates for filling the transmission gap (e.g., Bernard & Dozier, 2010; Madigan et al., 2006).

The Organizational Approach of Attachment for Relationships in General

Attachment theory assumes that the organization of attachment during infancy has implications for later relationships. An extension of early attachment theory pertains to the relationship between adult attachment patterns and romantic and marital relationships (Weiss, 1982, 1991). Studies reveal that secure attachment styles are associated with greater relationship interdependence, commitment, trust, and satisfaction than insecure attachment styles (Fraley & Davis, 1997; Simpson, 1999). Looking at retrospective reports, Shaver and Hazan (1988) pointed out that adults who describe themselves as secure, avoidant, or ambivalent with respect to romantic relationships report differing patterns of parent-child relationships in their families of origin.

The Relation With Psychopathology and Clinical Application

Attachment theory has become a primary source of reference for developmental deviations and pathology (e.g., the inclusion of reactive attachment disorders in the International Statistical Classification of Diseases and Related Health Problems, 10th Revision [ICD-10] classified by the World Health Organization (WHO) as reactive attachment disorder). Attachment disorders are assumed to be a consequence of the failure to develop normal attachment relationships during the early childhood period (until about 3 years of age). Neglect, abuse, separations, frequent change of caregivers, and excessive numbers of caregivers are discussed as possible causes as well as lack of caregiver responsiveness. The case of Romanian orphans has therefore become a major target of attachment disorder research (e.g., Gunnar, Morison, Chisholm, & Schuder, 2001).

The Neurophysiology of Attachment

Over the last decades, there has been an increasing interest combined with research efforts in the understanding of the (neuro)physiological underpinnings of attachment relationships. So far, different physiological measures have been assessed in terms of attachment regulation, mainly in response to encounters with strangers (for a summary, see Fox & Hane, 2008): (1) Heart rate (HR)—securely attached infants' HR seem to recover faster than insecurely attached infants after HR increases during separation from the mother; nevertheless, the results are not equivocal across studies and there seems to be an interaction with temperament and other personality descriptors. (2) Cortisol—salivary cortisol reactivity is a very popular measure due to its noninvasiveness. Nevertheless, results differ due to different assessment modalities. In general, it may be tentatively argued that stress during the strange situation is reflected in increases in cortisol levels—also interactions with temperament and other psychological measures are reported

(Gunnar, Mangelsdorf, Larson, & Hertsgaard, 1991). In general, the development of the child's attachment outcome is assumed to be a product of the child's genetically encoded biological predisposition and the particular caregiver affective-relational environment.

The developments that have been briefly outlined here depart from attachment theory as formulated by Bowlby and Ainsworth. As concomitants of attachment theory, ideas about intergenerational transmission, organizing relationships in general, deviations and pathological behaviors, as well as experiences that mold the neurophysiology of attachment rest in the assumption of monotropic relationships, exclusive attention between baby and caregiver, mainly the mother, sensitive responsiveness towards infants signals, and elaborated mentalistic dialogues and trait-like organization of the psyche (for more details, see Keller, in press). These assumptions characterize the psychology of parent-child relationships in Western middle-class families, which compose less than 5% of the world's population (Keller, 2007). There are, however, accounts of substantial differences of socialization goals, caretaking strategies, and parent-child behavioral relationships across cultural communities (e.g., Gottlieb, 2004; Keller, 2007; Lancy, 2008; Weisner, 1987) that must have implications for the development of attachment relationships. It is therefore astonishing that none of the students of attachment have conceptually and theoretically advanced attachment theory to keep up with the developments in the diverse fields that have been foundational for the formulation of attachment.

In the remainder of this article, we argue that attachment theory as it stands does not adequately reflect cultural variation in relationship development. Related to this is the neglect of core assumptions of evolutionary theory as adaptations to contextual demands. These considerations necessarily influence the definition of attachment in particular with respect to normative character. In the concluding paragraph, we will propose a study program with the aim to make attachment theory an evolutionary-based cultural informed theory of development.

Attachment and Evolutionary Approaches

Attachment theory is based on evolutionary theory with the assumption that attachment has evolved during human phylogeny in the Environment of Evolutionary Adaptedness (EEA; Bowlby, 1969/1982). Due to hominid brain growth (that was conditional for the development of social intelligence to coordinate life in larger social groups that were able to exploit better resources and to defend more effectively), human infants are born "physiologically preterm" (Prechtl, 1984), such that the skull is flexible enough to pass through the birth channel. Thus, infants are altricial and depend on a caregiving environment to survive and strive. Infants are equipped from birth onward with attachment behaviors like smiling, vocalizing, looking, and crying that attract the attention of others. Humans are also equipped with a complementary caregiving system that is sensitive and responsive to infants' signals and starts working during early childhood (e.g., intuitive parenting program, Papousek & Papousek, 1995). This system basically consists of interest in infants and the desire to stimulate and console them depending on the nature of their signals.

The evolutionary origin of these systems has been equated with assumptions of universality (LeVine & Norman, 2001; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Rothbaum, Weisz, Pott, Miyke, & Morelli 2000). Attachment qualities seen around 1 year of age are assumed to be universal manifestations of preceding caregiving experiences. The best caregiving environment for the human infant consists of (maternal) sensitive responsiveness and mind-mindedness, a later addition to the theory, as they are precursors of attachment security. However, the conception of maternal sensitivity rests in a partnership model of interactional (quasi) equality by assigning the infant an equal role for the interactional flow as expressed in turn-taking and face-to-face exchanges (Keller, 2003). Infants are attributed an independent agency, a free will

(Ainsworth & Bowlby, 1991), with preferences, needs, and desires and emotions that are elaborated in mentalistic dialogues. This conception of an infant can only be adaptive in contexts where material and social resources are plentiful so that families can afford the caregiver-child exclusivity without neglecting other tasks. It is obvious that this cannot apply to all humans.

Therefore, it is a misconception of evolutionary theory to expect the same behavioral regulations irrespective of contextual variation (Keller, 2010).

Lamb, Thompson, Gardner, Charnov, and Estes (1984) have raised the question of the adaptability of one evolutionary strategy as a misunderstanding of evolutionary principles and natural selection. These authors correctly state that "(e)volutionary biology, however, demands an evaluation not only of biologically influenced predispositions but also of the contingencies provided by the specific environments or 'niches' in which the individuals must manifest these predispositions" (p. 146). Belsky, Steinberg, and Draper (1991) later qualified secure and insecure attachment responses as developmental organizers in terms of different reproductive strategies yet equally adaptive in terms of reproductive outcomes.

Even today, evolutionary theory is often misunderstood as subscribing to the assumption of psychic unity (Norenzayan, Choi, & Peng, 2007). In fact, Neo-Darwinian evolutionary theory (Alexander, 1979; Tooby & Cosmides, 1990; Wilson, 1975) claims that contextual information is crucial for defining adaptation, thus putting variability in the very centre of evolutionary theorizing. The core assumption is that individuals need to select the behavioral alternatives that promise the highest reproductive outcomes in a particular ecological situation (Keller & Chasiotis, 2008). It is therefore unlikely that in the Pleistocene EEA, which is regarded as the cradle of modern men, only one behavioral strategy would have been selected as adaptive. In the same vein, Belsky (1999) argued that different attachment strategies, as defined by Ainsworth et al. (1978), do not represent one healthy strategy and different aberrations but different adaptive strategies in different environments responding to different adaptational challenges. Therefore, secure attachment is not "better" than insecure attachment but a different way to maximize reproductive success. The difference in perspective, whether psychological well-being (assumedly associated with secure attachment) or reproductive success, is the *tertium comparationis*. This difference is also the starting point for the growing interest in an evolutionary developmental psychology (Bjorklund & Pellegrini, 2002; Keller, 2001).

Interestingly, John Bowlby explicitly stressed the contextual nature of attachment in his early writings (Bowbly, 1969/1982), but this did not find its way into attachment research.

Attachment and Cultural Differences in Socialization Strategies

Students of attachment theory claim a "cultural origin" for attachment theory based on Mary Ainsworth's (1967) Uganda study, which represented her recognition of cultural influences. It is true that Mary Ainsworth adapted her Uganda experiences to the Euro-American middle-class families in Baltimore by increasing their stress to activate the attachment system through the laboratory environment and the inclusion of a stranger. However, the strange situation procedure was then exported to different cultural environments from the Gusii in Kenya (Kermoian & Leiderman, 1986) and Hausa in Nigeria (Marvin, Van Devender, Iwanaga, LeVine, & LeVine, 1977) to Western and non-Western middle-class families (for a summary, see van IJzendoorn & Sagi-Schwartz, 2008) without further cultural adaptations.

Today, the only dimension that attachment researchers have recognized as cultural is the distribution of the attachment qualities. Distributions deviating from the American Standard Distribution as assessed in the Ainsworth Baltimore study (Ainsworth et al., 1978) are interpreted ex post facto as demonstrating the role of culture. There are usually three examples given.

In Northern Germany, Grossmann et al. (Grossmann, Huber, & Wartner, 1981; Grossmann, Spangler, Suess, & Unzner, 1985) replicated the Ainsworth Strange Situation with 46 mother-infant pairs and found a different distributions of attachment classifications with a high number of avoidant infants: 52% avoidant, 34% secure, and 13% resistant (Grossmann et al., 1985). The Japanese case is another example. Takahashi (1986) studied 60 pairs of Japanese mother-infant pairs and compared the Japanese distribution with Ainsworth's distributional pattern. There were no significant differences in proportions of securely attached (68%) and insecurely attached (32%) infants. However, the Japanese insecure group consisted of only resistant children, with no avoidant ones (see also Miyake, Chen, & Campos, 1985). Finally, there is the Israeli case with the Sagi et al. (1985) study that also revealed a high frequency of the ambivalent pattern. Grossmann et al. (1985) interpreted their findings as expressing a greater parental push toward children's independence, whereas the Israeli kibbutzim and the Japanese data were interpreted in terms of underexposure to strangers. Notably, the Japanese childrearing philosophy was regarded as stressing close mother-infant bonds, which may lead to the experience of excessive separation stress caused by the Strange Situation procedure.

Inge Bretherton (1992) rightly found these cultural explanations as persuasive on the surface but not based on systematic assessments of parental beliefs and culturally guided practices. Moreover meta-analyses of cross-cultural studies showed that intracultural variation is far greater than intercultural variation (van IJzendoorn & Kroonenberg, 1988). Bretherton (1992) recognized the need for systematic studies of cultural differences when she concluded that attachment researchers need to develop ecologically valid, theory-driven measures, tailored to specific cultures and based on a deeper knowledge of parents and children's folk theories about family relationships. Folk theories about socialization and development are based on cultural conceptions of the self (Keller, 2007).

Bowlby's psychoanalytic training may have had an impact in creating a psychology that defined independence from others as a requisite of healthy human development (Erikson, 1950; Freud, 1930/1961; Mahler, 1972). Ever since, independence from others and personal autonomy are the ideological foundations of attachment theory with notable consequences for the definition of parenting quality, childrearing goals, and with respect to an understanding of desirable endpoints of development (Keller, 2003, 2004, 2007; Keller & Harwood, 2009).

Indeed, security of attachment is not simply a behavioral category; it is also a moral ideal in as much as it provides a pathway to the development of culturally valued qualities, such as self-confidence, curiosity, and psychological independence (Harwood, Miller, & Lucca Irizarry, 1995; LeVine & Norman, 2001; Morelli & Rothbaum, 2007; Rothbaum, Pott et al., 2000; Rothbaum, Weisz et al., 2000). The inherent moral imperative in attachment discourse has implications for the definition of psychological health and well-being in general.

Furthermore, maternal sensitivity is not simply assumed to be a causal influence in the development of attachment; it is a judgment on maternal adequacy, a way of distinguishing good from bad mothers (LeVine & Norman, 2001). Ainsworth (1969/2012) describes the sensitive mother as one who acknowledges that her baby has his/her own will; she also respects her baby's anger and evaluates the baby's needs as a separate autonomous person. Promptness of responding to the baby's signals is important because the baby cannot perceive a delayed response as contingent upon his communication. It is assumed that it is good for a baby to gain some feeling of efficacy and eventually to gain a sense of competence in controlling the social environment. Cultural influences in the conceptualization of maternal sensitivity are even more pronounced with regard to the evaluation of maternal cooperation versus interference with the baby's ongoing behavior (Ainsworth et al., 1978). Interference is conceived of as instructing, directing, and controlling, rather than following the baby's lead, which is highly desirable. The highly interfering or intrusive mother is regarded as one who has no respect for her baby as a separate, active,

and autonomous person, whose wishes and activities have a validity of their own. Ainsworth (1969/2012) considered one of the dynamics behind interference to be an emphasis on training. From this perspective, the mother feels that she can shape the baby to fit her own concept of good behavior, and she imposes her agenda on him without regard to his own wishes (cf., also Rothbaum, Pott et al., 2000; Rothbaum, Weisz et al., 2000).

However, directing and controlling infant's and children's behavior is the ideal of good parenting in many non-Western cultural environments (Chao, 1995; Keller, 2007; Morelli & Rothbaum, 2007). Therefore, what is normative in one cultural environment is regarded as a pathological condition in another. For example, mother-infant symbiosis or triangulations belong to the clinical repertoire in the Euro-American middle-class culture, whereas it is the cultural standard and the valued practice in many non-Western contexts, which actually compose the majority of the world (Kagitcibasi, 2007; Yovsi, Kärtner, Keller, & Lohaus, 2009). In the following discussion, some cornerstones of socialization patterns that deviate from a Western middle-class perspective will be presented.

Multiple Caregiving Arrangements

It is the most obvious difference in caregiving patterns across cultures that the monotropic bond between one caregiver and one infant is the exception rather than the normal case for human populations. This change in perspective has far-reaching consequences, and it has implications for the definition and the organization of attachment.

From an evolutionary point of view, anthropologist Sarah Hrdy (1999) has convincingly argued that humankind would not have survived if solely mothers had been infants' caretakers. She proposed a cooperative breeding model (Hrdy, 1999, 2009) as a social system in which nonparental members of a social group—alloparents—help to support offspring who are not their direct biological descendants. Alloparenting is popular in diverse species including primates (Clutton-Brock, 2002; Lancaster, Kaplan, Hill, & Hurtado, 2000). Nevertheless Bowlby with his monotropic view referred to the work of the British ethologist Robert Hinde, who studied rhesus macaques who have a caregiving system with the mother playing a unique role for the upbringing of the offspring. Steven Suomi (2008) commented on that: "One wonders how Bowlby's attachment theory would have looked if Hinde had been studying capuchin rather than rhesus monkeys!" (p. 177). There are primate models with care arrangements like the cotton-top tamarins that rely more on distributed caretaking (Blum, 2002) or Bonnet macaques that do not show stranger anxiety (Rosenblum & Kaufman, 1968). Primate parenting of over 300 primate species can look very different (Fairbanks, 2000) in terms of social systems and parenting strategies. Moreover primate parenting varies contextually. as the impressive studies of Christophe Boesch et al. have revealed (e.g. Boesch, 2012).

In the human family networks in the EEA, mothers benefitted from alloparental help (grandmothers, siblings, other relatives) by distributing the cost of raising offspring and thereby still being able to spend a considerable amount of time on domestic activities, such as hunting/gathering, or working in the fields, rather than on child care (Kramer, 2005; for a summary, see Otto, 2008). The care and altruism of alloparents is best explained by the theory of kin selection (de Waal, 2003) as formulated in the 1950s by Japanese primatologist Imanishi (1941/2002) and British sociobiologist Hamilton (1964). Alloparents enhance their inclusive fitness by helping kin (Trivers, 1985; van IJzendoorn, Bakermans-Kranenburg, & Sagi-Schwartz, 2006) and cooperative breeding systems enhance the fitness of its members by reducing birth intervals, raising maternal fertility, and promoting infant survival in primates (Silk, 2002) as well as in humans (Daly, Salmon, & Wilson, 1997; Hrdy, 2009).

Accordingly, we find patterns of alloparenting in many cultural environments (for a summary, see Lancy, 2008). For example, among the Efe of Zaire, newborns are passed between women

who collectively hold, carry, and nurse the infant. At the age of 6 weeks, Efe infants spend more time with other persons than with the biological mother (Tronick, Morelli, & Ivey, 1992).

Similarly, Gottlieb (2004, in press) has presented extensive evidence that after birth Beng babies from the Ivory Coast typically see the mother, a grandmother, often an aunt, and perhaps one or two other female kin:

> The newborn's social circle widens dramatically almost immediately following the birth. As soon as an infant emerges from the mother's womb, assuming the baby appears healthy, while one of the older women present washes the newborn, someone else from the mother's family walks around the village as a messenger, announcing the baby's arrival to members of every village household. … On hearing the news, people flock to the courtyard to welcome the fresh arrival to the village, and to this life. Within about an hour, a long line forms outside the door of the birthing room. (Gottlieb, in press)

Courtney Meehan (2005) reports from the Aka tropical forest foragers, who reside in the Congo Basin Rainforest, that children are raised in cooperative childrearing systems. Infants and young children have approximately 20 caregivers interacting with them on a daily basis. Aka mothers remain primary caregivers in infancy, but maternal care significantly decreases after the child's first year of life.

Alloparenting and multiple caregiving (i.e., socially distributed caretaking; Serpell, 1984; Weisner, 1987, 2005) are not simply Sub-Saharan African phenomenon as one could conclude from these examples. Kurtz (1992) presents convincing evidence about multiple caretaking in India in his book *All the Mothers Are One*, where he refers to Seymour's (1999) work in Bhubaneswar, Orissa as well as Minturn and Hitchcock's (1966) contributions to The Six Culture Study. Furthermore, Sharma and LeVine (1998) have undertaken lengthy, systematic studies of multiple childcare in naturalistic settings in different parts of Northern India. Susan Seymour (2004) concludes:

> India provides an excellent case study for examining multiple child care. Even in a context of rapid change and modernization, my research and that of others indicate that exclusive mothering is the exception, rather than the rule and that the concept of maternal indulgence— that is, a mother focused solely or primarily on responding to and nurturing her child—is itself problematic. (p. 550)

Lewis (2005) has argued that multiple mothering is also not simply a matter of non-Western cultural environments. He sees socialization as a process of learning to become a member of different social networks. From the social relational approach (Lewis, 2005), the infant is embedded in multiple, complex social networks from conception on. Similarly, in his comments about multiple caretaking, Weisner (2005) concludes: "The dyadic attachment model severely limits the incorporation of such variation in children's social and cultural worlds into the analysis of attachment and close relationships" (p. 90f).

Not only do multiple caretaking systems vary in their structure and organization, there are differences especially with respect to the mother's role. Does the mother play a special role among other caretakers, or is she one among others? West Cameroonian Nso farmer mothers try to prevent their infants from developing special bonds to them through blowing into the infants' faces and forcing them to attend to others. Only when Nso are single mothers, and thus in a socially unfavorable situation in their society, do they accept special bonds between their infants and themselves (Keller & Otto, 2011; Otto, 2008). The organization of the caretaking system has direct implications for the definition of attachment. We will return to this point later.

Stranger Anxiety

Related to the caretaking arrangement is the evaluation of strangers in the social world of infants and small children. In the Ainsworth Strange Situation procedure, strangers are introduced as conditions of stress. Stranger anxiety, also referred to as "8-month anxiety" (Spitz, 1965; Sroufe, 1977), is defined as the child's perception of an unfamiliar person as being different and thus fear arousing (Ainsworth et al., 1974, 1978). It is reported to emerge during the second half of the first year with a peak around the eighth month of age. It consists of avoidance behaviors and can lead to fearful crying. Similar to attachment, stranger anxiety is generally regarded as part of a universal behavioral system. It is supposed to protect the infant and insure survival, keeping the child away from unfamiliar conspecifics (Bowlby, 1973; Eibl-Eibesfeldt, 1977).

In the EEA, strangers probably appeared most often as dangerous predators (Daly & Wilson, 1988; Hrdy, 2009). Marks and Nesse (1994) point out that stranger anxiety emerges when infants start to crawl and explore the environment, which may expose them to potential dangers, including strangers.

However, there are examples from non-Western cultural contexts that offer a different perspective: To the Beng people of Cote d'Ivoire in West Africa, the concept of the dangerous stranger is virtually unknown; instead, the Beng conceive of strangers as neutral at least, but mostly as welcoming (Gottlieb, 2004, in press). Beng parents teach their children to behave in a friendly manner toward strangers, and infants are socialized into welcoming strangers from early on when newborn Beng infants are introduced to many different people on their first day of life. One consequence of this early socialization process is the fact that none of the Beng infants show stranger anxiety, not even toward an unfamiliar white anthropologist; instead, Beng infants have learned to feel comfortable with strangers (Gottlieb, 2004). Everett reports a similarly welcoming attitude toward strangers among the Brazilian Piraha Indians (Everett, 2009).

Likewise, it takes but a minute for Cameroonian Nso people to treat a stranger as a member of their society: They immediately address the White, unfamiliar researcher in kinship terms, as auntie, sister, or mom, depending on their standing in the hierarchy and the defined relationship between themselves and the researcher (Keller & Otto, 2009; Otto, 2008). In this simple way, they integrate the unfamiliar researcher into their social system. Normally, the socialization practices of the Nso reveal a general friendliness toward strangers: They are always ready to invite people to join in a meal and form warm and amicable relationships (Mbaku, 2005); from early on, Nso children are expected to greet strangers in the same manner. In a quasi-experimental study, Otto (2008) exposed 1-year-old Nso children to a female stranger. A considerable number of children did not show any negative emotional reaction at all in the presence of the stranger, independent of the degree of bodily proximity between stranger and themselves. These children demonstrate an adaptation to sociodemographic circumstances of families who followed the traditional living pattern of the Nso: extended family system, many children, multiple caregiving arrangements, and a high maternal workload due to subsistence-based agriculture. Their mothers translated the socialization goal of calm and obedient children into a parenting strategy that aims at teaching children indifference toward different caregivers.

Although stranger anxiety may have evolved and represents a universal predisposition, it obviously becomes enacted or not through socialization experiences that are framed by socialization goals and ethnotheories, which are adapted to contextual demands (Keller, 2007; Keller & Kärtner, 2013).

The Definition of Attachment

Attachment has been defined by Bowlby and his followers as the emotional bond between an infant and his or her caregiver(s), which is expressed in attachment behaviors such as crying, clinging, and following with the aim of establishing and maintaining proximity, particularly in stressful situations (e.g., Bretherton, 1992). Although Bowlby (1969/1982) believed that "instinctive behaviour [attachment] is not stereotyped movement but an idiosyncratic performance by a particular individual in a particular environment" (p. 39), the emotional bond has been commonly understood as a psychological construct that is defined in mentalistic terms of cognitions and emotions. This definition is rooted in the conception of the self as a separate individual and a mental agent who "owns" cognitions and emotions that are distinct from those of others.

Empirical approaches that are aimed at assessing the meaning of attachment (behaviors) across cultures do not reflect the underlying conception of cultural selves. For example, Posada et al. (1995) compared childcare specialists and mothers from China, Colombia, Germany, Israel, Japan, and the United States in their definitions of security of attachment based on attachment Q-sort descriptions (Vaughn & Waters, 1990). The results revealed that across "cultures," mothers' and experts' conceptions of secure attachment converged. Culture is put here in quotation marks because it was defined as country, but country cannot be equated with culture (see Keller, 2012). It can be assumed that childcare specialists had undergone Western-oriented training, which would explain why their views converged with attachment theory. Indeed, the mothers had similar sociodemographic profiles with an average of 31 years, 12.5 mean years of formal education, and an average of 1.9 children. This sociodemographic profile exactly represents middle-class milieus, and research has shown that to some extent middle-class mothers hold similar childrearing goals and values across countries (Keller, 2007). Nevertheless there were variations between the samples and results that led the authors to conclude "that it becomes relevant to identify the ecologies in which such clusters [homogenous groups] emerge" (Vaughn & Waters, 1990, p. 45), thus recognizing that different ecologies may relate to different views on attachment relationships. Indeed, anthropological and culture psychological accounts support the view that different cultural ecologies are related to different views of the self that also have consequences for the definition of attachment relationships. For example, the conception of the "opacity doctrine" offers a different perspective on relationships since it distinguishes the human psyche as a "private place" (Duranti, 2008, p. 485). This conception includes an indifference toward others' mental states (Ochs, 1988; see also Mead, 1934). Also Everett's principle of the *immediacy of experiences* adds another piece to the puzzle of understanding different conceptions of the mind. The Piraha Indians in southwest Amazonas states of Brazil value talk of concrete immediate experiences over abstract, unwitnessed, nonimmediate topics (Everett, 2009), which would restrict the coverage of mind-minded conversations.

Mind-mindedness is also a recent phenomenon in the Western world. It is related to the "inward turn," which is seen as a consequence of the decline of fixed traditions and the loss of power of societal institutions. Thus, as a consequence of the "disembedding" of society's ways of life, identities can no longer be defined to the same extent by social group membership.

Taylor (1989) related the increasing secularization in modern Western societies to a worldview in which what is considered to be "good" has to be defined by the individuals themselves. Defining one's identity is constituted through self-reflexivity and self-control. Individuals are now forced to "explore" and "search" for the self in order to find their identity, and this is primarily achieved through autobiographical narratives (Demuth, Abels, & Keller, 2007). Autobiographical memories provide the basis for continuity and coherence through these self-narrations (Straub, Zielke, & Werbik, 2005; Taylor, 1989), which also are an essential part of the

conception of the self as a stable psychic structure as expressed in a trait psychology (e.g., McCrae & Costa, 1997).

Another central issue of attachment research is its definition as a monotropic, dyadically organized relationship. It is therefore specific to the dyad so that the attachment relationship with the mother may look different from that with the father. Different attachment relationships are considered to be hierarchically organized. For some time, this monotropic understanding of relationships and their formation has been questioned by sociobiological (e.g., Hrdy, 1999), anthropological (e.g., Lancy, 2008; Weisner & Gallimore, 1977), and psychological (e.g., Seymour, 1999; Weisner & Gallimore, 1977) accounts. It is, however, a question not only of whether a child can form more than one meaningful relationship but of how these relationships are defined and organized. Recognizing the need for a relational perspective, van IJzendoorn and Sagi-Schwartz (2008) stated that the study of attachment needs to be expanded not only to include multiple relationships but also to incorporate conceptions and assessments of the child's and caretaker's modes of relationships. Van IJzendoorn and Sagi-Schwartz (2008), who are experts on "culture and attachment," acknowledge the contextual variations found when reviewing non-Western attachment studies. They attest to the need for a radical change from a dyadic perspective to a network approach for understanding attachment. Earlier, a similar claim was made by Heinicke (1995), who stated "that the study of attachment needs to be expanded ... to include multiple relationships" (p. 307). Nevertheless, attachment researchers conclude, even after recognizing these differences, that "in general, Bowlby and Ainsworth's original ideas [the primacy of the mother-child relationship] held up well" (Cassidy, 2008, p. 17).

Multiple caregiving arrangements rest substantially on children, siblings, relatives, neighbors, often not much older than the baby whom they tend. Bettina Lamm (2002) analyzed the ethnotheories of Cameroonian Nso child caregivers and German children who had baby siblings. All children, who were between 4 and 8 years old, had conceptions of caring for a baby, which were similar to parenting ethnotheories of mothers, although the experiences of the Nso babysitters differed substantially from those of the German siblings. However, the Nso children believed themselves to be the best caregivers, whereas the German children thought the mother was the best caregiver for an infant. Weisner (2005) argues that children who are babysitters to younger ones learn all aspects of nurturance, dominance, and responsibility while young. They recognize that the intimate attachments of caregiving can and will extend to noncare contexts and that such reciprocity is at the center of "socially distributed supports" within a wide network of relationships. Children in each of these kinds of social relational pathways become adults differently and are different adults but no less competent and healthy than others. They have relational security of a different kind.

Differences in the sense of security can be regarded as consequences of early socialization experiences (Keller & Kärtner, 2013). Infants who experience an early distal socialization environment of child-centeredness with exclusive dyadic interactions that are mainly channeled through face-to-face contact, contingent responsiveness toward positive infant signals, and elaborated conversations co-construct individualized psychological bonds. Conversely, infants who experience bodily proximity with several caregivers and contingent responsiveness to negative signals co-construct communal, hierarchically organized relational patterns (Keller, 2007). On the one hand, individual mentally based attachment relationships may result, and on the other hand, a generalized conception of trust in the (physical) availability of support may be the consequence.

Outlook

Consistent with van IJzendoorn and Sagi-Schwartz (2008, p. 901), it is obvious that the cross-cultural database for attachment research is "absurdly small." However, studying more groups

around the world with the classical attachment paradigm and the standard procedures is not what is needed. There is considerable evidence that attachment theory and research is based on the Western middle-class conception of development with the primary goal of individual psychological autonomy. There is also evidence that cultural contexts differ widely in their models of autonomy and relatedness, socialization goals, and caregiving strategies. To further develop attachment theory as a cultural conception of caregiver-child relationships, it is first important to define attachment from within cultural points of views. In line with indigenous points of views, folk theories could be the starting point to develop more formalized conceptions and theories (Greenfield & Keller, 2004). The Japanese conception of amae that the psychoanalyst Takeo Doi (2001) has described as the uniquely Japanese way of conceiving of close relationship is an example of that kind of analysis. Amae describes not only parent-child relationships but also relationships with spouses, teachers, and other caring people. The conception includes dependency as well as hierarchy. The focus on the relational network as well as the emphasis of hierarchy would qualify the amae concept as being more in line with the cultural model of hierarchical relatedness than with psychological autonomy. Based on similar considerations, Rothbaum and colleagues have argued that the attachment-exploration balance from the Bowlby/Ainsworth conception would need to be replaced by an attachment-accommodation framework for the Japanese case (Rothbaum, Pott et al., 2000; Rothbaum, Weisz et al., 2000) (see also the Greek term of *philotimo*; Triandis, 1972). Unfortunately, the discussion about these culturally derived relationship conceptions has remained largely academic, and no empirical research programs have been derived on these grounds.

The cultural analysis of socialization goals, parenting ethnotheories, and parenting behaviors and contexts is another building block for expanding attachment theory into a culturally informed framework. There are meanwhile rich descriptions of diverse cultural socialization goals and strategies, which have been partly summarized in the preceding paragraphs. Two edited volumes will be published in 2013 that will present an impressive range of documents of this kind: Hiltrud Otto and Heidi Keller edit the volume *Different Faces of Attachment* with Cambridge University Press and Naomi Quinn and Jeannette Mageo edit the volume *Cross-Cultural Challenges to Attachment Theory* with Plagrave MacMillen publishers. It seems as if individual concerns with the cultural nature of attachment theory have now turned into a louder voice. What is now needed are research programs that systematically conceptualize and empirically analyze differing cultures of attachment. Consistent with that claim, a research strategy needs to be developed that links to the Bowlby/Ainsworth tradition, on the one hand, but starts anew, incorporating present knowledge about evolution as well as cultural conceptions of socialization, parenting, and children's development.

Consistent with Bowlby's groundbreaking work, a new approach must depart from his definition of attachment as an adaptive social construct that is necessary for survival and development and must be conceptualized within an interdisciplinary framework. A new approach must also link with Ainsworth's recurring field work—a necessity that she repeatedly stressed when expressing her disappointment "that so many attachment researchers have gone on to do research with the Strange Situation rather than looking at what happens in the home or in other natural settings … it marks a turning away from 'field work,' and I don't think it's wise" (Ainsworth, 1995, p. 12). Creating different conceptions of attachment on these grounds would not only help understanding development as the cultural solution of universal developmental tasks but also pave the way for the improvement of clinical and educational programs as defined by the needs of people.

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