

## The Parent-Infant Relationship and Social-Emotional Development Among Aka Pygmies\*

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Western theories of child development are usually based upon research with suburban white middle-class families. One problem with this approach is that the developmental psychologist often assumes or is led to believe that the processes and stages of child development are "natural" and universal. When the "grand" theories of developmental psychology (e.g., Freud, Erikson, and Piaget) are presented to college undergraduates, it is easy for the student to assume that the processes and stages of child development are experienced by children in all parts of the world. Seldom is the cross-cultural applicability or the cultural context of the theory considered. This chapter does not attempt to dismiss or reject existing theories of child social-emotional development, but simply aims to: (a) describe the cultural setting of Aka Pygmy parent-infant relations as they influence the Aka child's social-emotional development, and (b) evaluate the applicability of Western theories of social-emotional development for understanding Aka child development.

This chapter describes a relationship between Aka parent-infant relations and the development of autonomy and cooperation. Developmental psychologists generally associate emotional and social well-being with autonomy and cooperation with others. Researchers generally identify socially competent children (Ainsworth, 1973; Baumrind, 1973; Erikson, 1950; Maccoby & Martin, 1983) with some of the following characteristics: self-reliant, self-control, self-directing, independent, demonstrates empathy to others, infrequent aggression towards others, friendliness, and social maturity. This chapter examines the very early development of autonomy and cooperation among the Aka and assumes these to

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be important measures of social and emotional development. Other components of the culture, besides the parent-infant relationship, influence and are influenced by the Aka child's social-emotional development, but this chapter considers the importance of Aka parent-infant relations in the child's development. The chapter emphasizes parent-infant (up to about 2 years of age) relations because it is the stage in which Aka parents invest the most direct time and energy in their children. Once another baby is born (birth spacing is about 3–4 years), parents continue to invest in their children (by providing food and staying near them), but are seldom actively involved in their care. As children become more mobile and their parents are occupied with a newborn, children are more likely to spend their time with other adults and children, rather than with parents.

Both quantitative and qualitative methods are utilized to describe Aka parent-infant relations and the development of autonomy and cooperation. Descriptions of parent-infant relations are based upon a quantitative study of 15 Aka families. The study utilized all-day and partial-day infant and father focal behavioral observational techniques to measure similarities and differences in mothers' and fathers' infant caregiving style (see Hewlett, 1991a, for greater detail on methodology). Science measures of autonomy and cooperation were not part of this study. Indirect evidence from the parent-infant study and qualitative data are utilized to discuss the development of autonomy and cooperation.

My first fieldwork with the Aka was conducted in 1973–74. Since then I have returned to the field seven times. The quantitative data on the 15 Aka families were collected in 1984, but I have visited the 15 families several times since the initial study.

### THE AKA—GENERAL CONSIDERATIONS

The Aka parent-infant relationship and social-emotional development are embedded within a cultural nexus—they influence and are influenced by cultural systems. This section makes specific links between general features of the Aka cultural system, the parent-infant relationship, and the development of autonomy and cooperation. Greater ethnographic detail on the Aka can be found in Hewlett (1991a) and Bahuchet (1985).

The Aka are hunter-gatherers of the tropical rain forests of southern Central African Republic and northern Peoples' Republic of the Congo. They live in camps of 25 to 35 people and move camp every two weeks to two months. Each nuclear family has a hut, and each camp generally has five to eight huts arranged in a circle. The circle of huts is about 12 meters in diameter and each hut is about 1.5 meters in diameter. Each hut has one bed of leaves or logs on which everyone in the family sleeps. The Aka have patrilineal clans and many members of a camp belong to the same patrilineal clan (generally a camp consists of brothers, their wives and children, and unrelated men who are doing bride service for the sisters

of the men in camp). The Aka have high fertility and mortality rates: A woman generally has five to six children during her lifetime; one-fifth of the infants die before reaching 12 months and 43 percent of children die before reaching 15 years.

The physical and social setting of Aka parent-infant relations can be inferred from the above discussion of Aka settlement and demography. The infant lives with a relatively small group of individuals related through his or her father (unless the infant is the first-born in which case the family is likely to be in the camp of the wife for the purposes of bride service) and sleeps in the same bed as mother, father, and other brothers and sisters. Life in the camp is rather intimate. While the overall population density is quite low (less than one person per square km), living space is quite dense. Three or four people sleep together on the same bed and neighbors are just a few feet away. The 25 to 35 camp members live in an area about the size of a large Euroamerican living room. The Aka home represents the "public" part of life, while time outside of camp tends to be relatively "private". This is the reverse of the Euroamerican pattern (i.e., home is usually considered private). The camp is relatively young as half of the members of the camp are under 15 and most women have a nursing child throughout their childbearing years.

The Aka rely heavily on net hunting for their subsistence. Men, women, and children participate in the net hunt. Nets are set up in a semicircle, men go to the center of the nets, and women stay near the net. When a sound is given men in the center of the nets start to shout and pound the ground with logs to flush out and scare the game (primarily antelopes) into the nets. Women have the role of tackling the game in the net and killing the animal. Game captured is eventually shared with everyone in camp. Some parts of the game animal are smoked and eventually traded to Bantu and Sudanic farmers for manioc or other domestic foods. Net hunting does not take place when: there has been heavy rain; specific fruits, nuts, caterpillars, termites, or honey are in season and easily collected; or the camp has moved into the village for part of the year to work for villagers. Aka utilize a diversity of other hunting techniques when the net hunt is not possible (e.g., cross-bow, spear, small traps). The Aka have strong economic and religious ties to the tropical forest. The forest is perceived as provider and called friend, lover, mother, or father.

The subsistence patterns provide data about the physical and social context of parent-infant relations outside of camp. Infants are taken on the net hunt and are with or near mother and father at all times when they are out of camp. The number and types of individuals the infant experiences diminishes from time in the camp as each family sets up and guards their own net. Infants view the roles and activities of both mothers and fathers and physically experience subsistence activities with them. Parents chase game, kill, butcher, and share game while holding their infants. The organization of the net hunt and the sharing of game and other items imply that it benefits parents to encourage their children to be

cooperative. The extensive cooperation and sharing increases survival as it diminishes the risk of not getting any food. Not every family captures game each day, but the few families that do capture game share with everyone in the camp. Some families do not capture game in their nets for a week or more, but are provided game or other food items by other family members in the camp.

The high fertility and the nature of the net hunt also directly influences parent-infant relations. Most women have a child to carry during their reproductive years. The net hunt requires that women walk 8–12 km per day which means that it is not possible to ask older sibling to carry infants. Sibling caregivers are common in horticultural societies, but siblings provide assistance to their mothers around the house or in the fields. Since most of the other women have children to carry and siblings are not available, fathers or adult men are the only others around to help out with child care. Unlike many other societies, Aka fathers are important contributors to infant and childhood care.

There are other features of Aka culture that are important to the discussion of parent-infant relations. The Aka utilize an immediate return social-economic system. The Aka do not delay their consumption of foods hunted and collected during the day; there is an immediate return on time and energy expenditure. This is unlike most farming and industrialized systems where one has to work today for a return months or years away. The immediate return system has implications for social relations. In farming or delayed return systems, individuals are tied to specific others who have invested time and energy in the cultivated land, whereas in immediate return systems individuals are not bound by a delay in investment—social relations are much more flexible. If hunting is poor or one is not getting along with his neighbor it is easy to get up and move to another camp. This leads to another feature of Aka culture—flexibility. Changes in camp composition occur daily. People leave to visit friends, attend a dance, hunt with other relatives, search for a new spouse, and so on. While extended family is very important among the Aka, one cannot expect to rely upon the extended family or specific others for extensive support.

The Aka are also fiercely egalitarian. They have a number of mechanisms to maintain individual, intergenerational, and sexual equality. Three of the mechanisms are prestige avoidance, rough joking, and demand sharing. Aka try to avoid drawing attention to oneself, even if one has killed an elephant or cured someone's life-threatening illness. If an individual does boast about his abilities it is possible that he could share less or request more from others in the belief that he or she was better than others. If an individual does start to draw attention to himself others in the camp will use rough and crude jokes, often about his genitals, in order to get the individual to be more modest about his or her abilities. Demand sharing also helps to maintain egalitarianism—if an individual likes or wants something (cigarettes, necklace, shirt) of another he simply asks for it, and the person generally gives it to him or her. Demand sharing promotes

the circulation of scarce material goods (e.g., shoes, shirt, necklaces, spear points) in the camp.

The immediate return system and egalitarianism imply that it is important to be flexible and autonomous. An individual cannot rely on specific others for extended support, does not expect to acquire resources from others when he gets older, if he is male, or if he is in a leadership position. The individual also has to be able to respond quickly to changes in the availability of resources or social tensions in the group.

The rough joking mentioned above is also linked to another feature of Aka culture—playfulness. There is no clear separation between “work” and “play” time. Dances, singing, net hunting, male circumcision, sorcery accusations all include humorous mimicking, practical jokes, and exaggerated storytelling. Aka life is informal because of egalitarianism and the playful activity that occurs throughout the day by both adults and children. Play is an integral part of both adult and child life and contributes to enhanced parent-child and adult-child communication. Parents and adults have an extensive repertoire of play and can and do communicate cultural knowledge to children through their playful repertoire.

Finally, the distinctive features of the Aka husband-wife relationship should be mentioned. Aka husband-wife relations are striking by cross-cultural standards because they spend so much time together cooperating in a number of activities. Most of the year husband and wife cooperate on the net hunt. The couple sets up the net together, cooperate to get the game into their net, share in the butchering of the animal, and rest together between casts of the nets. While there are clearly male and female roles on the net hunt, role reversals take place daily and individuals are not stigmatized for taking the roles of the opposite sex. If one does the task poorly, regardless of whether it is a masculine or feminine task, then one is open to joking and teasing by others (e.g., when the anthropologist chases the game in the wrong direction). When net hunting is not possible due to rain or other social or environmental reasons, husband and wife engage in other cooperative activities—collecting caterpillars, honey, mushrooms, nuts and fruits. Husband and wife also spend considerable leisure time together dancing, singing, and repairing the net. Husband and wife also eat together and sleep in the same small bed. There is no other culture in which husband and wife spend so much time together, especially in intensive cooperative activity (Hewlett, 1991b).

Numerous studies in developmental psychology (Easterbrooks & Emde, 1989; Belsky, Rovine, & Fish, 1989; Lewis & Weinraub, 1976) have indicated that husband-wife relations are crucial for understanding mother-child or father-child relations. Generally the studies indicate that if husband-wife relations are warm and close then parents are more sensitive and responsive to their child's needs and that fathers are more likely to become involved in child care (Belsky,



Rovine, & Fish 1989). The Aka data tend support the psychological studies in that both the husband-wife and the father-infant relationship of the Aka are exceptional by cross-cultural standards.

### AKA INFANCY

Cultural practices during infancy are quite distinct from those found in Euroamerican cultures. Aka parents are indulgent—the infant is held almost constantly, nursed on demand (breastfed several times per hour), attended to immediately if she/he fusses, and is seldom, if ever, told “no! no!” if he or she misbehaves (e.g., get into food pots, hit others, or take things from other children). Older infants (8–12 months) are given considerable freedom to crawl around the hut and camp. They are allowed to use and play with knives, machetes, and other “adult” items. They are allowed to crawl into a parent’s lap while the parent is engaged in economic (e.g., butchering animal, repairing net, etc.) or leisure (e.g., playing a harp or drum) activity. While older infants are given considerable freedom to explore the house and camp, parents do watch infants to make sure they do not crawl into the fire.

While in the camp there is extensive multiple caregiving of 1–4 month-old infants (Hewlett, 1989). Mother holds the infant only 40 percent of the time and the infant is transferred to individuals 7.3 times per hour. Mothers’ holding increases to 85 percent and the transfer rate drops to 2 transfers per hour outside of the camp (i.e., on net hunt or in fields). Fathers are the second most important provider of infant care. During daylight hours they provide about one hour of holding and over a 24-hour period are within an arms reach of their infant over 47 percent of the day (Hewlett, 1991a). While multiple caregiving is extensive, mother and father are by far the primary caregivers and most of the “others” that do provide the care are genetically related to the infant (e.g., infant’s grandmother, aunt, uncle, cousin, etc.). Multiple caregiving diminishes in late infancy (8–12 months). Older infants are transferred 1.3 times per hour in camp and only 0.2 times per hour out of camp. Older infants are held about half of the time while they are in the camp setting which may help to explain the lower transfer rate while in camp, but the older infants are held all of the time while out in the forest and where the transfer rate drops even more dramatically.

Aka infants are seldom placed in the care of older siblings. Older siblings or children in the group are not given the responsibility of caring for infants as is found in many non-Western farming communities (Weisner & Gallimore, 1977; Chapter 13, this volume).

Aka infancy is very active and stimulating. Infants are taken on the hunt and are seldom laid down. They are held on the side of the caregiver rather than the back as in many farming communities so there is extensive opportunity for parent-infant face-to-face interaction and communication. The infant can also

breastfeed by simply grabbing the mother's breast and can breastfeed while the mother walks. While out on the net hunt the infant will sleep in the infant sling. Aka therefore experience extensive vestibular stimulation as described by Konner (1976) among the !Kung San. Direct teaching by mother and father of subsistence skills also begins in late infancy (8-12 months). While sitting down on the net hunt either resting or waiting for the hunt to begin, parents will give the infant a small spear, digging stick, or knife and show him/her the movements with the object. This point is discussed at greater length below. Developmental testing of Aka infants indicates that they are mildly precocious in their motor and cognitive development (Neuwelt-Truntzer, 1981).

### AKA CHILDHOOD

The Aka child is able to walk by 12 months and explore a more extensive area. The 1-year-old spends more time by herself imitating and experimenting in various cultural activities. Outside of camp parents continue to carry the child, and parents continue to instruct the young child in subsistence activities while out hunting and gathering.

Sometime during the second year of life the child's mother becomes pregnant again. This stage of the child's development is called *djosi* by the Aka. The mother might try to wean the child if he has not already weaned himself, and the mother now begins to get ready for the next infant. With the birth of the infant the mother has less time for the 3-year-old. Most adolescents questioned about this weaning period indicate that it is not a stressful time. The child is still indulged and there are no dramatically new expectations for the child. It is still a time of play, but increasingly more time is spent with other adults and children in camp. In many horticultural societies this is when indulgence stops dramatically and the child is encouraged to be obedient to adults. The 3-4-year-old children are the ones most likely to be left behind in camp. Mother carries the newborn. The father may decide to carry the child, especially if he is a younger father. Three- to four-year-olds engage in subsistence and social play and cook for themselves when they stay behind in camp with one or two other adults. By the time they are 6-7 years of age they are taken on the net hunts on a more regular basis as they can generally keep up on their own. If a 6-9-year-old has a grandparent in camp they will often sleep with them.

Most children remain in mixed adult-child groups in and out of camp until they reach 7-9 years of age. Once children near adolescence they tend to spend more time with similar age friends and children rather than adults. Figures 14.1 and 14.2 are derived from data collected by Nuwelt-Truntzer (1981) and illustrate the gradual decline in the amount of time children spend in the company of adults. Adolescents tend to travel a lot on their own to visit family and friends, go to dances and to search for a potential spouse. In camp, adolescent boys and

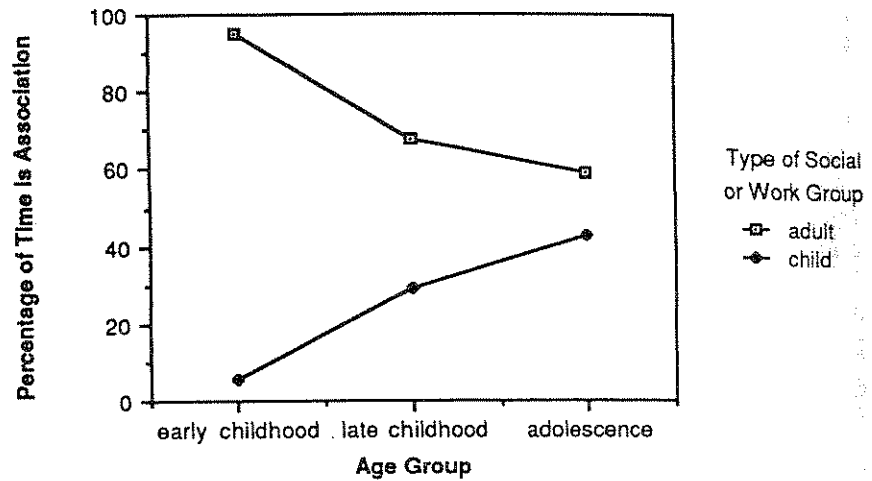


Figure 14.1. Children's work or social group outside of camp setting

girls tend to keep separate spaces, but outside of camp, on the hunt and while traveling, they are frequently together.

By the time adolescence arrives Aka children know most of the skill necessary to survive in the forest alone or with other children of similar age. I asked sixteen 7–12-year-olds how many of 50 important subsistence and social skills they knew, and most of them knew 75 percent of the skills (Hewlett & Cavall-Sforza, 1986). The Aka children knew how to: kill and butcher a large duiker, soothe a 5-day-old infant, identify a variety of edible mushrooms and caterpillars, make medicines for sick children, trap porcupines, and plant manioc.

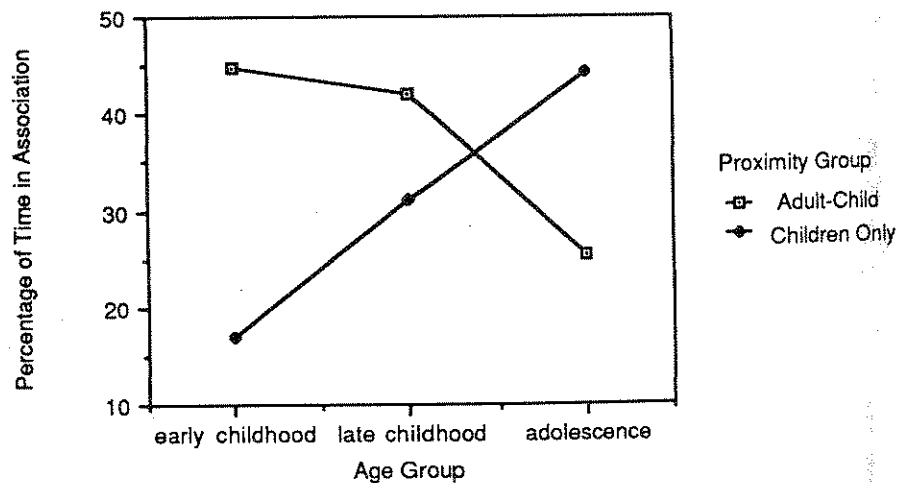


Figure 14.2. Proximity group (three closest individuals) of children in camp setting



## PARENT-INFANT RELATIONS

There are three areas of parent-infant relations that are critical for understanding the development of autonomy and cooperation in Aka infants: the frequency of mother- and father-infant interactions, the diversity of activities mothers and fathers engage in with the infant, and the sensitivity of parent-infant interactions.

First, the Aka mother, father, and infant know each other exceptionally well because they are together so much of the time. Mother's and father's degree of familiarity with the infant's facial expressions, sounds, and body movements are extensive. One- to four-month-old infants are held constantly in the camp (Figure 14.3). Mothers are the primary caregivers, holding their infants most of the time in camp and out on the net hunt, but fathers are the second most important caregivers and hold the infants over an hour during daylight hours. Between sunset and 9 p.m. (when most Aka go to bed when there is no dance) fathers spend one-fourth of their time holding their infant. Mothers time and investment is certainly greater than that of the father. Mother, father, and infant sleep in the same bed, and it is usually the father who gets up in the middle of the night to soothe a fussy infant that does not want to nurse.

Second, parents engage in a diverse range of activities with their infants. Infants are exposed to all dimensions of the adult world. They are on their parents' side when the parent dances, sings, plays the drums, runs after an antelope, cooks, defecates, and so on. Fathers intrinsically value their role as infant caregivers, so they are willing to hold and care for their infants in various settings. Fathers carry their infants when they go out drinking palm wine with other men (they usually give some to the infant), when they are making string for their nets, and when they are dancing. Since mother provides most of the care the

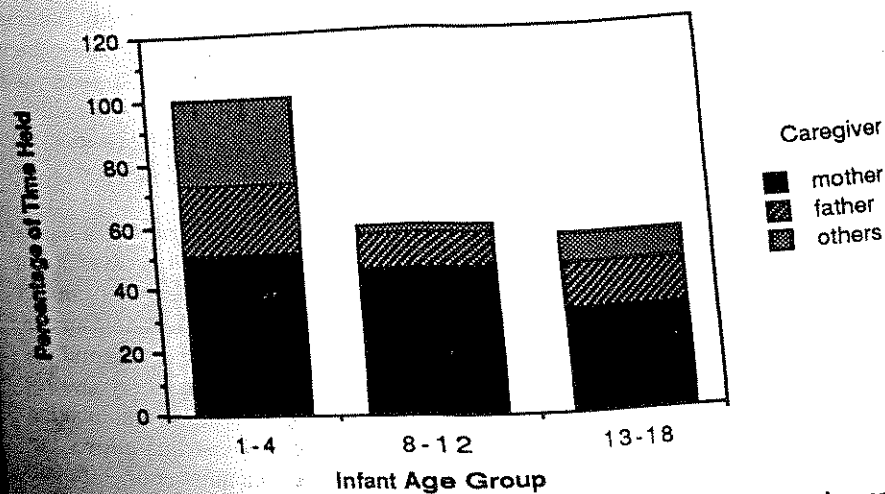


Figure 14.3. Percentage of time mother, father and others held infant in camp setting

infant experiences more activities with mother than with father. Mothers are more likely to care for the infant outside of the camp while on the net hunt, while fathers are most likely to provide care in the camp setting when mother is engaged in other activities (food preparation, cooking, collecting firewood, etc.).

Mothers and fathers are similar in the types of caregiving activities they provide the infant. Both mother and father hold the infant on their side, wash, clean, feed solid foods, delice and clean mucus from the infant's nose. Mothers, of course, nurse the infant, but I have seen several fathers offer their breast to their infant if she starts to fuss. Fathers also clean up after an infant defecates or urinates.

Quantitative studies of Aka mother's and father's interactions with infants (Hewlett, 1991a) indicate that fathers are more likely than mothers to soothe, show affection, clean and play with infants while holding them, whereas mothers are more likely to be feeding or transporting infants while holding them. It should be noted that father's play is not the vigorous or physical type of play often found with Euroamerican fathers.

Finally, the quality of parent-infant interaction is an important contributor to the development of autonomy and cooperation. Parents and infants do many activities together but it is important to understand how they are done. Quality of interaction is important, but especially difficult to measure. At this point I can only offer qualitative and indirect evidence for the quality of Aka parent-infant relations. Aka parents are sensitive caregivers; they generally do not perform their caregiving tasks in a perfunctory manner and respond to the infants initiative and attempts to communicate. The high frequency of face-to-face play during early infancy demonstrates, I believe, the parents interest to go beyond perfunctory care. Parents do not appear to feel uncomfortable, uneasy, or resistant to their caregiving role. Both mother and father intrinsically enjoy holding and caring for their infants. Parents are sensitive to their infants because they understand how to communicate with their infants; they know how to listen and respond appropriately to their infants signals and cues. Parents' sensitivity develops out of the incredible (by Western standards) amount of time parent and infant spend together in physical contact and the Aka parent's desire to communicate and play with their infants.

The nature of parent-infant relations influences the development of autonomy and cooperation. Parents are with their infants frequently, they do a diversity of activities with infants, and are sensitive caregivers. The frequency of contact encourages familiarity with each other's needs and detailed mechanisms of communicating. Parents learn to wait for infant initiative and can respond appropriately. This encourages the development of the infant's autonomy and his understanding of cooperation (i.e., through mutual reciprocity in communication exchange). Parents and infants do many activities together and this allows the infant to explore, understand, and demonstrate initiative in a number of different settings. This would also increase the infant's sense of autonomy. Finally,

parents enjoy interactions with infants and want to learn to communicate with them. Infants are fun and not perceived as a burden to adult life. They are integral to adult life. The desire to communicate with the infant and high frequency of interaction with the infant encourage intimate reciprocal parent-infant interactions, and the consequent development of autonomy and cooperation.

### THE DEVELOPMENT OF AUTONOMY AND COOPERATION IN INFANCY

This section identifies stages in the Aka infant's development of autonomy and cooperation. Material from previous sections is incorporated into the descriptive accounts of these stages to help clarify the developmental sequence.

Autonomy and cooperation emerge during the first few months of the infant's life. Parents and infant are in direct skin-to-skin contact most of the day and night. This skin-to-skin contact encourages nonverbal communication between parent and infant. Aka infants do not have to fuss to indicate that they are hungry, tired or sick—Aka parents can usually tell when these states are occurring by how the infant moves and breathes. The infant is also carried on the parent's side which allows for face-to-face interaction and communication (rather than being placed on the mother's back as in many horticultural societies). While they are holding both mothers and fathers engage in regular face-to-face play with the infant during the day. Face-to-face play accounted for 65 percent of the play with infants 1–4 months of age. Fathers engaged in face-to-face play about four times per hour on average while holding their 1–4-month-old infants and mothers engaged in face-to-face play about two times per hour on average while holding their 1–4-month-old infants during the day. Aka parents listen and watch their infants intently in these playful episodes. Parents and infants communicate with their eyes, body movements, and sounds in this play. Face-to-face play with 1–4-month-olds is one of the mechanisms by which parents and infants learn to intimately communicate with each other. The infant learns about mutual reciprocity in these interactions—he or she learns to take in and respond to information. Once this cooperation between parent and infant is established, the infant is in a position to initiate interaction with the parent. The sensitive Aka parent then is able to read the infant's initiative and encourage the signals with appropriate responses. Autonomy develops as the infant feels secure (i.e., always held, fed on demand, immediate attention to fuss), and can take and is rewarded for initiatives to communicate feelings to her parents.

An infant establishes a sense of autonomy and a good understanding of cooperation in early infancy. In late infancy (8–12 months) the infant is able to crawl and possibly explore a variety of items in the hut and camp on her own. Older infants are held less frequently while in camp than the younger infants. Figure 14.3 indicates that older infants are held between 50 and 60 percent of

the time while in camp. The rest of the time they are on their own exploring the hut and camp. Parents and adults value autonomy so the infants are allowed to crawl wherever they want and play with and manipulate whatever objects they may encounter. Parent-infant play of the older infants becomes predominantly object mediated rather than face-to-face. Fifty-four percent of 8-18-month-old parent-infant play is object-mediated (compared to 25 percent in early infancy) and less than 20 percent of 8-18-month-old play is of the face-to-face type (compared to 65 percent in early infancy). The older infant explores the leaves and branches of the hut, the father's hunting bags, the mother's gathering basket, the clay pots, father's cross-bow, the log bed, and so on. At this age infants are also allowed to play with and use knives, machetes, and sharp pointed objects, such as metal spear tips, digging sticks, and small spears. The infants I have seen using these "dangerous" objects explore them with confidence. They seem to be exploring its general properties (weight and texture) and seem to have some understanding of its basic function (e.g., digging, cutting). Parents and others do not try to grab these items away from infants even if they are sitting next to an infant with a sharp object. While the infants are relatively cautious with these objects, they have limited ability to use them properly. The infant might slam a machete on the side of the hut or jab at the ground with a digging stick.

Late infancy is also when Aka parents begin to directly teach their infants how to use subsistence implements. My observations indicate that this is most likely to occur out in the forest on a rest period on a net hunt. Rest periods last 15-45 minutes, and people sit around joking, socializing, and discussing the previous cast of the nets. While sitting down talking to another adult a parent might make a small spear or digging stick for their infant, who is generally in their lap, and show the infant how to use it by placing the object in the infant's hand and moving the object in the appropriate manner. The infant is allowed to use the object while they are resting. This age is exceptional in that it is the only age in which I have consistently watched parents directly instruct their children in subsistence skills. While parents provide direct teaching, most learning appears to be through observation, imitation, and experimentation. This openness to explore and experiment contributes to the development of autonomy. The environment continues to be secure in the ways mentioned above and the infant does not experience negation (e.g., told not to hold or touch this or that) as she explores the environment. When there are immediate dangers, for instance, when an infant crawls towards a fire, a parent goes over and moves the infant to another area rather than yelling no! no!

Autonomy is also encouraged as the infant crawls to people and tries to initiate actions with others. The infant crawls into the lap of those near the hut and is warmly accepted wherever she goes. The infants and others do not know each other as well as parents and infants, so others are especially likely to initiate play with the older infants to demonstrate their interest in the infant. Playful interactions are especially characteristic of other (than mother or father) infant interac-

tions (Hewlett, 1991a). Seldom do infants at this age crawl very far from the hut. Most of their solo exploratory activity takes place in and around the parent's or grandparent's hut, which is generally a few feet away from the parent's hut.

An understanding of cooperation continues to grow as autonomy develops and the infant increases her abilities to communicate and interact with parents and others. The infant becomes self-assured, and learns that listening and mutual reciprocity are the best means of communicating with parents and others. Also, solid foods are a regular part of the diet by this age so the infant learns to eat out of the common pot with everyone else. The infant learns that solid foods come from many others in camp as generally two or three families make pots of food for all the other huts in the camp.

By one year of age the infant can walk reasonably well, can more easily explore the whole camp as well as parts of the forest while her parents are hunting and gathering. In camp, the 1-year-old infant is essentially on her own—she moves wherever she wants and interacts with most everyone in camp. Most of the infant's play in camp is solitary, but there are occasions throughout the day when the infant engages in cooperative subsistence or social (e.g., dancing, ritual, singing) play with other children. The other children in the camp enjoy teaching the 1-year-old how to dance, net hunt, or spear hunt as the infant often makes mistakes. Hitting or any other aggressive behavior is not tolerated so any time the infant hits a person or one of the older children hits the infant a nearby adult comes over and moves the infant to another area or activity. Outside of camp on hunting and gathering expeditions, the 1-year-old infant continues to be carried by his mother or father and is breastfed on demand. Subsistence toys get to be more elaborate during this stage. Parents may make a small basket, ax (with metal blade), or decorated digging stick or spear and carry it in the mother's basket so that during a rest on the net hunt they can take it out and let their infant play with it while they talk. Parents may give some instruction in the use of the tool, especially if the infant is not using it properly. But generally infants at this age know the function of the various subsistence implements, so they dig holes with the digging stick or try to cut down small saplings with the small ax. In camp the infants use these implements in their solitary play. By 18–24 months infants usually know how to cook some foods on the fire. I have seen 1-year-olds roast nuts and bananas and wrap meat in a leaf and put it on the fire. All of these experiences contribute to the development of the infant's autonomy and understanding of cooperation.

Autonomy and cooperation emerge at a very early age among the Aka and parents are primarily responsible for their emergence. But an understanding of the development of autonomy and cooperation go far beyond the parent-infant relationship. Parent-infant relations play an important role in the development of autonomy and cooperation, but parent-infant relations influence and are influenced by the cultural nexus in which they exist.

Autonomy and cooperation are desirable and adaptive (i.e., they may lead

to increased survival and reproductive success) traits for Aka. Autonomy and cooperation are beneficial to and consistent with multiple dimensions of the culture—the husband–wife relationship, egalitarianism, immediate-return system, nonviolence, and demographic structures.

The cultural environment encourages autonomy and cooperation. The cultural environment: lacks violence and corporal punishment; lacks exclusionary settings for exploratory infants and children (i.e., infants and children are trusted to explore and experience any and all cultural settings—slaughtering of animals, birth of babies, circumcision, etc.); it is physically and emotionally reassuring as the infant is carried on the net hunt, breastfed on demand, sleeps with everyone in the family, and is attended to immediately if fussing occurs.

### THEORETICAL CONSIDERATIONS

It is certainly not unique to suggest that parent–infant relations influence social-emotional development. Many of the classic studies in developmental psychology have pointed to the importance of parent–infant (primarily mother–infant) relations in the social-emotional development of the child. This section examines some of these theories in light of the Aka data that have been presented.

#### Attachment Theory

Bowlby's (1969) work with nonhuman primates led him to hypothesize that an early secure attachment between infant and caregiver (usually mother) is crucial for normal development. A disrupted mother–infant relationship leads to the infant's protest, despair, detachment, and eventually difficulty in emotional and social development. Bowlby thought that attachment to a caregiver evolved through natural selection because attachment would have promoted the survival of the helpless infant by protecting him from predators or exposure to the elements. According to Bowlby, both infants and adults have innate mechanisms that contribute to the attachment process. Evolved mechanisms in newborns include crying, babbling, and spontaneous smiling, while mechanisms in older infants include sucking, clinging, crying, and social smiling. These behaviors help to ensure that the caregiver stays near the infant. Adults are also biologically predisposed to develop attachment because they respond to the signals of the infants. An infant's babyish appearance (large forehead, large eyes, and round prominent cheeks) is also known to elicit caregiving behavior (Lorenz, 1943).

Attachment theory is extremely popular today and has generated hundreds of studies. Ainsworth (Ainsworth & Wittig, 1969) developed the "strange situation" to determine whether mother–infant attachment is secure, avoidant, or ambivalent. Longitudinal studies indicate that securely attached infants develop



autonomy, and a strong self-concept, and have normal social-emotional development in early childhood (Waters, Wippman, & Sroufe, 1979; but see Lamb, Thompson, Gardner, Chanov, & Estes, 1984, for a critique of this and other longitudinal studies on attachment). Ainsworth and her colleagues have also identified caregiving styles of mothers that contribute to secure infant attachment. These behaviors include sensitivity, acceptance, cooperation with the infant's ongoing behavior, accessibility, sociability, and ability to express positive emotions (Ainsworth, Bell, & Stayton, 1971). These are essentially the behaviors that have been described for Aka parent-infant relations. Aka parents are extremely responsive to their young infants. Aka parents and infants are able to read each other extremely well. Aka parents know how to listen and respond to the details of the infants' messages.

What do the Aka have to contribute to a better understanding of attachment theory? The Aka provide a better understanding of infant-father versus infant-mother attachment, and can place attachment theory in a cultural context. All of the psychological studies mentioned above that have examined precursors or consequences to secure attachment have utilized infant attachment to mother to determine secure infant attachment. Parent-infant studies are often seen as synonymous with mother-infant studies. Psychological work in attachment is predominately mother-focused while the above description of the Aka is parent-focused—it includes both mother and father.

How is infant-father attachment different or similar to infant-mother attachment? The increasing number of developmental psychologists who have researched infant attachment to father focus on if and when the infant is attached to father (rather than determining if the attachment is secure or insecure) and how that attachment develops. Numerous psychological studies indicate that infants are attached to fathers and that the infants become attached to fathers at about the same age as they do to mothers (8–10 months of age) (Lamb, 1981). The question then arises: How does that attachment develop? Infant attachment to mother is known to develop through regular, sensitive, and responsive care. How does attachment to fathers develop if they are seldom with their infants to provide this type of care? Extensive studies of American, British, and Israeli fathers indicate that vigorous rough and tumble play is a key factor in how infants become attached to their fathers (Lamb, Pleck, Charnov, & Levine, 1987). Fathers are not around their infants to provide the sensitive care, but do have a love and interest in their infants and demonstrate this through vigorous play. Fathers take the vigorous initiative because their understanding of their infants' cues is generally limited. Infants often smile and laugh in response to their father's vigorous play. Fathers understand these signals and therefore feel they are communicating with their infants. Fathers do not know the detailed nature of the infants' signals and therefore cannot wait for the infant to initiate interaction. Infants do appear to enjoy this caregiving style because it is fun and dramatically

different from that of the mother. An exception to this pattern was found in a study of Swedish families. Swedish fathers were not the physical playmates of their infants as was found in the American studies, but the study also found that the infants consistently preferred their mothers over their fathers (Lamb et al., 1982). The Swedish data are consistent with the other studies as it points to the importance of vigorous play to infant-father attachment.

The Aka data run counter to the existing hypothesis that is used to explain infant-father attachment. Aka fathers are regular, sensitive, and responsive caregivers of their infants. Fathers are within an arms reach of their infants 47 percent of the day and more likely than mothers to hug or soothe their infants while holding than are mothers. Fathers do not engage in the vigorous rough-and-tumble play with their infants found in Euroamerican studies. Others (besides mother and father) who hold the infant are much more likely to play vigorously with the infant. Infants are also clearly attached to their fathers. While I did not attempt to measure attachment with the "strange situation" because I thought it was culturally inappropriate, there is clear evidence that infants seek out their fathers. For instance, in the Aka study I coded reasons infants were picked up by caregivers. I did this because the Euroamerican studies indicated that fathers pick up infants to play with them. Aka mothers picked up their infants more than fathers to provide caregiving while fathers picked up their infants significantly more than mothers because of infant request; infants would reach for or crawl to their fathers simply to be held.

The Aka data set is small and limited but does suggest that infant attachment to mother and father can occur in the same way (see also Chapter 1, this volume). It makes sense that in Euroamerican cultures where fathers are often absent that they demonstrate their interest and concern for their infants through stimulating play. Euroamerican fathers do not have the ability to listen and wait for the infants cues and signals because they do so little caregiving. Mothers that work would also be expected to play more with their infants. Vigorous play is probably important for the establishment of infant-father attachment in the white middle-class Euroamerican cultural context. Attachment theory does not need to be rejected but needs to be placed in cultural context. The Aka cultural context is dramatically different from that of white middle-class Euroamericans: husband and wife cooperate together most of the day, there are no class distinctions as there are mechanisms to maintain equality, everyone sleeps together in a small bed, and so forth. Aka mothers and fathers are also regular and responsive caregivers. Vigorous play is not necessary because Aka fathers are intimately aware of other ways to communicate with their infants. It appears that "others" may use vigorous play to establish attachment, especially brothers and sisters, but that the process of infant-father attachment is not that different from infant-mother attachment.

### THE PARENT'S CHILDREARING PRACTICES AND SOCIAL COMPETENCE

The work of Baumrind (1971, 1973) has led Maccoby and Martin (1983) and others (Rowe, 1989) to develop models that show a relationship between parental caregiving style and the child's social development. Table 14.1 outlines Maccoby and Martin's model that is based heavily on the research of Baumrind. The model identifies four types of parenting. Authoritarian parents have an absolute set of standards by which they attempt to control and shape their children, value obedience and respect, and discourage verbal give and take with their children. Authoritative or reciprocal parents allow for give and take and explain the reasons behind the discipline, but also use their power when necessary to firmly enforce and maintain set standards, expecting children to conform to adult requirements. Indulgent parents are accepting of their children, respond to their impulses and desires, use little punishment, make few demands, and do not use overt power to achieve their objective. Neglecting parents are generally unresponsive and rejecting of their children and do not place many demands on them.

Longitudinal research has demonstrated that preschool children raised with the reciprocal or authoritative parenting pattern become socially competent older children (8-10-year-olds). The authoritative parenting style has been statistically linked to competent, independent, cheerful, self-controlled, nonaggressive, and friendly behaviors in children. Children with authoritarian parents are described as lacking empathy, low in self-esteem, aggressive, low in initiative, and often withdrawn. Children of indulgent parents tended to lack social responsibility, and be aggressive, dependent, and have low impulse control (Baumrind, 1971, 1973).

How does this model apply to the Aka? The Aka do not fit the pattern of

**Table 14.1. Four Patterns of Parental Caregiving**

	Parental Warmth	
	Accepting Responsive Child-centered	Rejecting Unresponsive Parent-centered
<b>SOCIAL POWER</b>		
Demanding, controlling	Authoritative or Reciprocal	Authoritarian
Understanding, low in control	Indulgent or Permissive	Neglecting

Note: Developed from Maccoby and Martin (1983).

positive social development suggested by the model. Aka parents are not reciprocal or authoritative; the indulgent pattern characterizes Aka parents. They are extremely high on the parental warmth dimension, but low on the parental power dimension. They are accepting and responsive, and do not firmly or consistently enforce a set of standards. Aka children do what they want. For instance, Aka parents often ask older children and adolescents to collect firewood or water, and the children tend to neglect or refuse the requests of their parents. The parents eventually get up and go get the firewood or water on their own. It is my own feeling that the high autonomy of Aka children is, in part, responsible for the lack of sibling caregiving among the Aka. Earlier I offered an ecological explanation for the lack of Aka sibling caregiving—it is not possible for the older children to carry infants long distances on the net hunt. But what about older children helping out in camp where there are no such constraints. This does not happen, in large part, I believe, due to the inability of parents to demand anything from their children. Respect for and the development of autonomy is more important than obedience and respect for elders or parents. This point is demonstrated by a question that I asked a number of Aka parents. I asked Aka parents to tell me the things they liked and disliked about the childrearing practices of the Ngandu, their farming neighbors. The Aka did not like Ngandu childrearing patterns because the parents were always yelling at their children and sometimes hit their children, but they did like the fact that Ngandu children listened to their parents!

While the Aka parents are indulgent, their children have all of the characteristics described for the children with authoritative parents. Aka children are nonaggressive, cheerful, self-reliant, socially competent, and independent. The differences are again a consequence of different cultural contexts. The Aka cultural environment described above promotes the early development of autonomy and cooperation—landmarks in determining social development. American preschoolers, on the other hand, have generally grown up in an environment of negation and so have been unable to develop self-esteem. Americans call the age just before preschool “the terrible twos.” This is in part due to the fact that the American 2-year-old is physically ready to develop autonomy, yet there are so many settings that are excluded from his or her exploration. The authoritative parent may allow for some development of autonomy in a consistent and supportive environment. American preschool children may need considerable direction and structure suggested by the authoritative pattern because American preschoolers have a relatively weak self-image. Aka children are already very self-reliant by preschool age. They can cook and forage on their own; they are allowed to explore and experiment in all cultural settings. Autonomy and cooperation, two important components of social competence, are already well established due to a dramatically different cultural context.

This does not mean that we should try to transplant the Aka parenting system

into the American system. The cultural systems are distinctly different; to begin with, the American system is highly stratified while the Aka system is egalitarian. The indulgent pattern is adaptive and suited for the Aka and the authoritative pattern is important for positive social development in white middle-class American society. What the Aka do provide is an understanding of the diversity of parent-child relations, and extend our understanding of the nature of parent-child interactions. The Aka may also provide alternative choices for problem solving in American child development programs for parents who want to raise their children in an alternative way.

### SUMMARY

1. Aka parent-child relations and social-emotional development take place in a cultural nexus. The immediate return economy, the organization of the net hunt, demographic structures, compactness of the settlement, egalitarianism, playfulness, and the husband-wife relationship all contribute to an understanding of parent-child relations and the development of autonomy and cooperation.
2. Aka infancy has a number of distinct features that contribute to social-emotional development: indulgence, multiple caregiving, high level of involvement by fathers, and a physically and cognitively stimulating environment.
3. Three important features of the parent-infant relationship that contribute to the early development of autonomy and cooperation are: the frequency of mother- and father-infant interactions, the diversity of activities mothers and fathers engage in with the infant, and the sensitivity of parent-infant interactions.
4. Autonomy and cooperation are established in the first four months of the infant's life through parent-infant interaction. The infant learns about mutual reciprocity in intimate communication with parents—he or she learns to take in and respond to information.
5. Aka infants do not become attached to their fathers through vigorous play as is found in many Euroamerican cultures. Aka infants become attached to their fathers and mothers in a similar way: Aka fathers and mothers are regular, sensitive, and responsive caregivers.
6. A permissive parenting style among the Aka promotes autonomy and cooperation in children, while the same permissive pattern in among American parents reportedly contributes to dependent and aggressive children. It is essential to understand the cultural nexus of parent-child relations in order to understand social-emotional development.

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