

2. *A Biocultural Approach to Sex, Love, and Intimacy in Central African Foragers and Farmers*

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Bembe created the earth. He created women. He then created men but he kept them away from the women. One day a man called Tole took all the men in his camp and started to hunt in the forest. They had no women with them, only calabashes they put on their chests to be like a woman. They hunted animals and ate them, all the men together. The next day Tole went alone into the forest, very early, and he listened and heard sounds he had not heard before. All the women were there. They had made a raft on the water and the women were playing on it. Now he hid and thought to himself, these are not men, but they are like men, only they have breasts. Something is wrong with their chests and they have no testicles, it is only flat. He crawled on his knees to catch one. The women were singing and playing on their raft and did not hear Tole. He tried to trap one, but they all ran to their hut. So the women went to their camp, and Tole went to his camp and told his friends, "I saw other people who have no testicles and have things pointing from their chests. Let's go and get them and find out what they are." It is because of Tole that men know women and women know men.

—Aka story

This chapter examines sex, love, and intimacy in married couples in two central African ethnic groups—Aka foragers and Ngandu farmers. New data on love and jealousy emerged during life history interviews, and we summarize that sexual behavior data here. Our research is designed

to begin to bridge critical gaps in the understanding of the daily lives, love, marital relations, and sexual experiences of foraging and farming men and women in relatively egalitarian small-scale societies. Most of what we know about sociosexual relations within the marital union is based upon research in highly stratified cultures and nation-states. We present ethnographic data on Aka forager and Ngandu farmer sociosexual relations and then apply the data to our biocultural model. Our data and the heuristic evolutionary-based model illustrate the interactions of biology (sexual desire, attachment, compassion), ecology (political-economic setting), and culture (schema, ideas, cultural models about sex and love). Previous studies of sex and love usually relied upon one of two general approaches to explaining these aspects of human behavior—love and sex are universal and are biologically based behaviors or they are culturally or socially constructed human behaviors. We suggest that intimacy, sex, and love are best understood within an integrated biocultural approach.

THE STUDY

The data are based upon in-depth interviews with thirty-five Aka (17 women, 18 men) and twenty-one Ngandu (11 women and 10 men) married adults. More Aka were interviewed because the study originally focused on Aka foragers and the decision to include Ngandu farmers occurred late in the study. Approximately 40 percent of individuals in both groups were older than fifty, as we wanted to understand sexual behavior and marital histories through the life course. All individuals interviewed had been married at least once; most had been married several times. The interviews focused on men's and women's marital and sexual histories and their views of love, jealousy, sex, and fertility.

The questions about marital history that we explored included mate attraction, reasons given for divorce, reasons for bringing in a second wife (males) or accepting a second wife (females), sexual jealousy, and spousal violence.

The first author conducted interviews with Aka and Ngandu women; the second author interviewed Ngandu and Aka men. We conducted the interviews in Diaka and Dingandu, and we used male and female Ngandu research assistants for all interviews with Ngandu. We took the marital histories of the Aka, but Ngandu men or women who spoke Aka and French

conducted the interviews with the Aka about their sexual ideologies. We obtained authorization to conduct the research at the national and local (e.g., village or camp) levels. We also obtained informed consent in the local language from each individual and emphasized confidentiality.

THE AKA AND NGANDU

The Aka foragers and Ngandu farmers in this study are neighbors in the tropical forest region of the Central African Republic. The population density is less than one person per square half-mile, and both groups have similar high mortality (child mortality of 35–45 percent) and high fertility (4–6 live births per woman).

The Aka and Ngandu have frequent social, economic, and religious interactions and see each other on a regular basis, yet they have distinct settlement patterns, modes of production, male-female relations, and patterns of child care (Hewlett 1991). Aka camps consist of 5 to 8 small (six feet in diameter) temporary houses with 25 to 35 individuals. The camp occupies an area of about 400 to 500 square feet. Ngandu villages consist of 50 to 400 individuals, and each house is at least 20 feet away from the next. The Aka are primarily net-hunting foragers, move their villages several times a year, have minimal political hierarchy (i.e., elders have little or no power over others), and have relatively high gender and intergenerational egalitarianism. The Ngandu are slash-and-burn farmers, live in the same house and work the same areas of land for most of their life, have strong chiefs, and have marked gender and intergenerational inequality. About 40 percent among the Ngandu and 15 percent of the Aka practice polygyny (Hewlett 1991).

The two groups are economically and socially interdependent. The Aka do not as a rule practice agriculture but rather obtain cultivated foods from the Ngandu through the exchange of forest game, wild vegetables (*coco*), and manual labor. Aka and Ngandu often belong to the same clan and share fictive kinship relationships.

Sharing among the Aka is substantially greater than among the Ngandu. The Aka share frequently (every day), with many individuals (most, if not all, of the camp), and share most of what they capture or collect. The Ngandu share food on a daily basis with members of the household, and they occasionally share food and labor with neighbors and clan members

(i.e., cooperative labor a few times a year). Individuals who do not share and accumulate food or material items are suspected, or are targets, of sorcery, which is believed to cause illness or death. These beliefs and practices help maintain household equality and are deterrents to accumulation.

The Aka have one of the most egalitarian cultures in the ethnographic record. The egalitarian status of Aka men and women is in part related to their subsistence patterns of net hunting and gathering. Men and women contribute equal amounts of calories to the household diet. The contribution varies according to their seasonal movements. When the Aka are working in the villagers' fields and living in village camps, the women bring in more "village" foods, in the form of carbohydrates, as food is exchanged with other villagers for labor. The men's contribution increases once the couple and any children have moved back to their forest camp. Women frequently join in the net hunt (generally the whole family participates), and it is not uncommon to see a woman with a knife or spear in one hand and a baby in a sling in the other. Men join in the gathering of forest plants, tubers, and nuts. The women generally control the distribution of food sources, both meat and plant, although men and women have equal access to available resources. Aka men provide more direct care to infants than fathers in any other systematically studied culture (Hewlett 1991). The Aka are also characterized by extensive gender role flexibility. Women and men regularly switch subsistence and child-care roles.

Strong patriclan social organization among the Ngandu emphasizes deference and respect by women and children for elders, males, and ancestors; consequently, marked gender inequality exists. For example, men are expected to receive larger portions of food; women cannot touch hunting implements (guns and spears); women seldom occupy political positions, such as village chief. Violence against women is not unusual. The number and age of geographically close male kin are important (e.g., male-male alliances), because the Ngandu accumulate goods and property (e.g., planted crops) that must be guarded from others. Also intra- and intergroup hostilities in regard to women are not uncommon, as a little less than half of all marriages are polygynous, leaving many men without a spouse, which in turn often leads to conflict and violence.

Ngandu men and women have sharply delineated gender roles and status. Ngandu women are the primary providers of calories to the diet, in the form of carbohydrates obtained from the fields they have planted, weeded, and harvested throughout the year. Men's work tends to be more seasonal;

during the dry season the Ngandu men clear the fields for the women to plant. Men generally are involved in the weeding and harvesting of coffee crops, if the Ngandu family has coffee fields. Women take part in an informal market economy by selling their farm products, such as manioc, peanuts, corn, plantains, and palm oil, and forest products that they received in trade with the Aka. A few Ngandu women also distill and sell corn alcohol or they sell meat their husbands have obtained by trading for clothes, medicine, or manioc.

The Ngandu promote social unity and conformity, in contrast to the Aka, who encourage autonomy (Hewlett 1991).

These ethnographic backgrounds illustrate key differences in foundational schema of the Aka and Ngandu. Foundational schema are ideas, knowledge, and values that provide the foundation for cultural models (i.e., ways of thinking/explaining/anticipating the intentions and needs of others) in a variety of domains of cultural life. For instance, the U.S. foundational schema for independence shapes cultural models of child care, male-female relations, and religious beliefs. Foundational schema of the Aka include age and gender egalitarianism, an ideology of giving/sharing, flexibility of social roles, respect for the autonomy of individuals, and trust of others. The foundational schema of gender egalitarianism among the Aka shape cultural models regarding the sexual division of labor in subsistence and child-care activities, healing systems, and religious beliefs. Consistent with their egalitarian schema, the Aka avoid drawing attention to themselves, avoid ranking each other, and share extensively (Hewlett 1999). Foundational schema for Ngandu include age and gender hierarchy, deference to and respect for authority figures and older individuals (parents, older siblings), obligations to specific others (clan, lineage), a material basis for adult social relationships, and a general distrust of others (e.g., sorcery).

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SEXUAL DESIRE AND FREQUENCY OF SEX

Sexual desire is a human universal and an integral part of human nature in both males and females. It is part of our evolved psychology, an unconscious drive to reproduce, to spread our genes, and contribute to the survival of the species. But what motivates sexual desire? Many evolutionists say that pleasure motivates most animals to engage in sexual activity (Symons 1979; Turke 1988). Middle-class Euro-American cultural models of human sexuality are consistent with this "sex for pleasure" hypothesis as they emphasize the importance of experiencing and sharing sexual pleasure (see the human sexuality section of any major bookstore). The desire for children, or feelings about children, seldom motivate, or are linked to, sexual experiences. Euro-American cultural models of sexual activity also regard sex as play, a leisure-time, rather than work-time, activity (although sex as work might well describe the experiences of couples having difficulty conceiving a child) (Coates 1999; Francoeur 1999). While pleasure is clearly a motivating aspect of sexual desire, do Western cultural models influence evolutionists' hypotheses? How do peoples in small-scale cultures like the Aka and Ngandu view and explain their sexual behavior? If sexual desire is generated by recreational pleasure-seeking behavior, how often do most humans desire the pleasure of sexual intercourse?

Urban industrial studies measure the frequency of sex in terms of number of times per week or per month and assume that couples generally have sex only once per night or day. Most studies further show that younger (30–39) couples report having sex two to three times a week (T. Smith 1991). By comparison, our research has found that Aka and Ngandu couples have about three times as much sexual activity as do individuals in stratified cultures. Aka couples, for example, have sex three times per week, three times per night on average. Ngandu aged eighteen to fifty have sex approximately twice a week, two times per night on average. Laying to rest our initial suspicions of male bravado, both males and females in

each ethnic group reported similar frequencies in separate interviews. This frequency of sex per night declined slightly by age, but age explained only 6 percent of the variability. A comparison of frequency of sex-by-age data for U.S., Aka, and Ngandu married couples shows that U.S. couples aged thirty to thirty-nine have sex 86 times per year, Ngandu 228 times per year, and Aka 439 times per year. The question then becomes why such a marked difference in the frequency of sexual intercourse exists between the U.S. and Central African couples.

SEX: WORK OR PLEASURE?

Bila na bongedi (sexual desire is work).

—Aka man

I am old and no longer have desire; when I was younger I liked it; when I was young I had pleasure. I had sex for kids and pleasure. I do not like sex now but if I refuse to sleep with him, I have to pay money to his family.

—Fifty-eight-year-old Ngandu woman, senior wife in polygynous marriage

Love is the work of the night; love and play are nice together if it makes a pregnancy.

—Young Aka woman

Both Aka and Ngandu have terms for sexual desire (*bongide* among Aka, and *elebe* among Ngandu), and both men and women report experiencing feelings of desire in relatively equal frequencies, but among the Aka and Ngandu, sexual desire and expression appear to be substantially different from their expression in stratified nation-states. Aka and Ngandu believe that sexual desire, coupled with sexual activity, is the “work of the night,” less arduous and more pleasurable than the “work of the day” but work nonetheless; as one Aka male succinctly put it, “The work of the penis is the work to find a child.” Another Aka male and female shared similar views; the man said, “I am always looking for a child, it is pleasurable, but it is a big work,” and the young woman noted, “It is fun to have sex, but it is to look for a child.” Several informants compared the work of getting food to the work of searching for a child: “Getting food is more difficult, but both are lots of work. Sex life is not as tiring as work during day; the work at night is easier because you can make love, then sleep.” Sex is the work of “searching for children.” Both societies place a high value on children, in terms

of wanting many, and while neither is a "child-focused" society, children are highly desired, and adults spend much time and energy "looking" or "working" for children.

The Aka were the most emphatic on these points. One young Aka male explained, "I am now doing it five times a night to search for a child; if I do not do it five times, my wife will not be happy because she wants children quickly." One woman said, "I have sex with him to get infants, not for pleasure, and to show that I love him." Forty to 50 percent of the population of Aka and Ngandu is composed of children younger than fifteen. While the two cultures are not, as noted, child focused, children are in many ways the life of the village and camps. However, Aka men were the only people to mention that they wanted to have frequent sex and many children in order to build a camp. "My father is dead, and I need to make a big family. My first wife found my second wife, who was looking to have many children," one man told us. He was thirty-five, had two wives, and reported having sex three to four times a night with two days of rest in between. A twenty-five-year-old man said that "it is work to find children and get children to make a large camp like my father." He reported having sex four to five times a night. That is not to say, however, that sexual activity is directed only with procreation in mind. Sex is at times an expression of desire and of love. One postmenopausal Aka woman explained to us that she is still interested in sexual activity for *bongide*, or sexual desire, "not for children," and also because she "loves him."

Ngandu males and females expressed the same sentiment, that sex is "to search for children"; however, among the Ngandu, both males and females complained frequently of the tiredness that they felt during the work of the night: "Sex is a work, when I give sperm it is a work, I get tired after sex." One Ngandu man was particularly emphatic that "having sex three times a night is to look for a child, *not* for pleasure." More women of both Aka and Ngandu explained to us that, while sex was "work" and sometimes pleasurable, the "infant is the most important." A few women also expressed the idea that sexual activity was also a "sign of love."

Why do both Aka and Ngandu have such frequent sexual encounters per night, once their hard "work" of the night has paid off and they have "found" a child, that is, the wife has become pregnant? Our findings suggest that both Aka and Ngandu believe that frequent sex is linked to pregnancy and fetal development, as a Ngandu man explained: "Since my wife is just pregnant, I need to have sex more often, two-three times a night,

but then I take a three to four days' rest." The Aka emphasized the importance of male contributions to fetal development; 87 percent of informants said male sperm is essential to pregnancy and fetal development, whereas Ngandu informants said that both men and women contributed fluid to make a pregnancy and promote fetal growth. Individual variation exists among the Ngandu in the extent to which they think that the woman contributes to the development of the fetus. Some suggested that women also ejaculate "sperm" during orgasm, which aids in the physical development of the baby, but the Ngandu women said they did not have to climax each time during a night but that when women were excited or had an orgasm, they contributed substance. That is, the male sperm creates and "builds" the baby in utero, but it is possible for the woman to contribute also. Birth defects and/or miscarriages are the result of infrequent sexual (sperm) contributions by the father.

One Ngandu male also explained to us, "Both men and women have sperm or substances; that is the reason why SIDA [AIDS] is transmitted between a male and female; both combine to make a child," but he added that "both men and women contribute *malima*; if one spouse is sick, a pregnancy will not happen." The word *malima* is used to describe both male and female secretions during intercourse. While Ngandu hold various theories about how babies are created and "formed," they mostly agree that "women have *malima* as well as men, and it takes two sperms to create a baby . . . [I] do not know how the female gives, but I think it is necessary for a woman to reach climax sometimes, but not each time, to create a baby." Ngandu females expressed a similar view: "The *malima* of woman contributes to baby development, that is why it is necessary to continue with sex during pregnancy." Another Ngandu woman explained, "The two sperm join to create the baby, and the woman needs to be excited to give substances, but she does not need to climax each time to make the baby."

The Aka, as noted, hold a similar understanding, that it takes the "sperm" of both partners to create the new life; however, more Aka seemed to feel that the sperm of the father is primarily what creates the child: "Only men have *mamboli* [sperm] and make the baby; women say they cannot get pregnant without men, so it is men's sperm that makes the baby." Another Aka man told us that "women do not give much to the baby; it is men, especially at first, that give good development of the baby, [so sexual activity continues] twice every night until the baby is very big [about six months]; you then have to slow to once a night." It is the cumulative "sperm" throughout

the pregnancy that creates the child, not conception that occurs on one night; that is, a new life is conceived and "built" over repeated encounters throughout the duration of the pregnancy.

While sex is viewed as pleasurable, that pleasure is secondary or tertiary to working for, and "building," a child or to demonstrate love for a mate. Ngandu men and women were somewhat more likely than Aka to mention pleasure as an important part of sex life. Ngandu women often related that "sex is pleasure, work, a sign of love, and necessary for infant growth" and "sex is for pleasure and for work to find children." Thus Aka and Ngandu cultural models emphasize procreation and the "work" of sex. Sexual pleasure as somewhat of a postscript to the sexual experience is in marked contrast to contemporary middle-class Euro-American cultural models, which emphasize the recreational and pleasurable aspects of sexual intercourse.

The biocultural model is essential for understanding sexual desire and the frequency of sex. Both Aka and Ngandu have sexual desire, but their cultural models dramatically influence their motivation for sex and how often they express sexual desire in intimate relationships. These data demonstrate the complexity of the issue of sexual activity for "work," pleasure, love, or some combination of all. Our basic physiologic makeup may control sexual drive, but our emotions and cultural models certainly influence the expression of sexual desire and sexual activity, which may also be affected by particular ecological conditions, such as high child mortality rates and a diversity of infectious and parasitic diseases.

LOVE AND INTIMACY

My first sexual experience was with my husband, I had just begun my periods, when we were together. I lived in a small hut, when he began to come and visit. When he and I were young, I chose to marry him because he caught a lot of meat and he was very handsome and nice. Once he brought a pig to my camp and gave me some, and after a time I wanted to marry him. He was strong and worked hard, and he became good in my heart. He shared a lot of his meat with other people. I loved him a lot and wanted children with no other. My mother taught me [that] if you marry him, [if] he is good and nice and brave, if he asks for sex, do not refuse him. I never refused my husband, and if I had *etebe* [desire], I waited for him and then asked for the sex. We made

love for the infants and to show I loved him. When I was young, he said I was beautiful. We were always together, walking in the forest. He never hit me; other men hit their wives, but he never did. We lived together and worked together for many years, but he died. After he died, I had no relations with other men. I lived in a little hut and suffered a lot because I loved him so much in my heart. I wanted no other man. I lived alone with my children and I was still strong and young. They married and found others, and now I am alone. When I am alone at night, I think of him and cry, even now, after so long [she was seventy when interviewed].

—Aka woman

If sexual activity is “work,” the night’s work of “searching for a child,” does love, then, merely reflect procreative and parenting efforts? Is love simply a universal means of ensuring that couples bond, mate, reproduce, and care for their children? Love has been long thought to be a Western cultural notion that does not extend beyond Euro-American borders (Wright 1994), but attachment to, and love for, particular others is part of our phylogenetic history, evolved psychology, and human nature. Attachment is an essential component of survival and well-being in Old World monkeys, apes, and humans (Konner 2005). Offspring that are not attached to a specific adult may not survive, and offspring that are not securely attached (i.e., provided with consistent and appropriate responses) may suffer socially and emotionally later in life, which in turn influences their reproductive potential. As Bowlby (1972) suggests, attachment probably evolved in parent-infant relationships; infants attached to particular others were more likely to survive, which enhanced the reproductive success of both infant and the mother or other biologically related caregivers. But love in humans can be particularly strong, in part because of the additional evolved propensity in humans to be able to empathize with others—the ability to read the needs of others, to identify with and understand another’s feelings or difficulties (Tommasello 1999). The attachment process and the ability to empathize and feel compassion for others influenced relatively (in comparison with other higher primates) strong dyadic or multiple bonds in humans. We all know how strong our feelings can be for others, even if they are not present, or when we have never met them (e.g., human responses to victims of natural disasters, wars, or epidemics).

While love and compassion are universal and part of our evolved psychology, how love and compassion are experienced in intimate relationships

varies dramatically. Both Aka and Ngandu identify love (*bondingo*) as an important component of marital relations. One Aka woman said, "I show I love my husband when we are together and I touch him and stay close to him." An Ngandu woman whose husband died several years previously told us: "Love is most important, and children will come later. I never looked outside of marriage for a lover; I do not desire other men because I want my husband—I have love in my heart for my husband. He was nice and respectful to me."

An Ngandu man also expressed his love for his wife, who could not have children: "I love my first wife the most, she is closest to my heart. She helps me and gives me food and respects me. We did not have children together; she was not able to. Now she does not menstruate, and we no longer have sex. I have sex with my second wife, to take care of the desire, but it is the first wife I love the most."

Both Aka and Ngandu men and women expressed love as part of their intimate relationship with their spouse, but how they experienced and demonstrated love varied substantially. Many middle-class Euro-Americans would describe Ngandu husband-wife relations as distant and perfunctory and Aka husband-wife relations as intimate, close, and giving. Ngandu husband and wife do not eat together, do not always sleep in the same bed, and share few activities, Ngandu men contribute little to subsistence or child care. By comparison, Aka husband and wife spend considerable time together during the day in a variety of subsistence tasks, including the net hunt; they eat together and sleep in the same bed (but not necessarily next to each other). As we mentioned earlier, husband and wife contribute relatively equally to subsistence, and Aka fathers provide regular child care. Husbands and wives in both groups do not publicly demonstrate affection, such as hand holding, hugging, or kissing. How is love expressed and measured? Both Aka and Ngandu mentioned having sex on a regular basis as a sign of love, but for Aka men and women, working hard and physical proximity were key measures of spousal love. Ngandu women occasionally mentioned that gifts of cloth or jewelry from their husband were signs of love. Ngandu men felt that their spouse's love was demonstrated by her respect for his demands and authority within the household and by such tasks as serving him a meal, washing his clothes, and giving him money. In addition, for the Aka and Ngandu, to speak of love is to speak of desire, and part of that desire is a desire for children. The biocultural model is useful for understanding the experiences of the Aka and Ngandu. Attachment

ability, to be empathetic to the needs of others, to "read" their minds, is a part of our evolved psychology. At the same time Aka and Ngandu foundational schema regarding gender hierarchy and their different culturally constructed niches (e.g., sedentary versus mobile lifestyles) contribute to the diverse ways in which the two cultures experience and express love, desire, and sexuality.