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The Evolving Spirit of Humanity
Anthropologist Melvin Konner

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The cover: Melvin Konner, chairman of the Department of Anthropology, with his son, Adam.

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The Shape of the Human Spirit

Melvin Konner believes evolution has sculpted not only our bodies but our souls

By Jan DeBlieu

SEVERAL WEEKS AFTER the birth of his daughter, Susanna, Melvin Konner took the baby to a pediatrician for a checkup. Chafed and red-eyed from lack of sleep, Konner had become convinced, as he would later write, "that colicky babies are a small coterie of otherwordly spirits sent to certain new fathers to punish them for prior unnamed sins."

Inside the pediatrician's office, Konner posed a question he had puzzled over for many consecutive sleepless nights. Holding the baby up, he sighed, "Doctor, she's ruining my life. She's ruining my sleep, she's ruining my health, she's ruining my work, she's ruining my relationship with my wife, and . . . and . . . and she's ugly. Why do I like her?"

The physician shrugged. "You know," he said in a matter-of-fact tone, "parenting is an instinct, and the baby is the releaser."

The pediatrician's answer struck Konner as distastefully simple, especially his choice of the words "instinct" and "releaser" — terms used commonly in a subfield of anthropology that compares behavior among different species of animals. Konner is a biological anthropologist who has concentrated his study on the evolution of human nature, and he found it disconcerting to have the language of his profession thrown back at him as a cliché. For the moment, though, there was no better answer at hand. Konner could only sink "back into my misery of love: a desperation of affection for a tiny, whining monster that was making a constant assault upon my nerves."

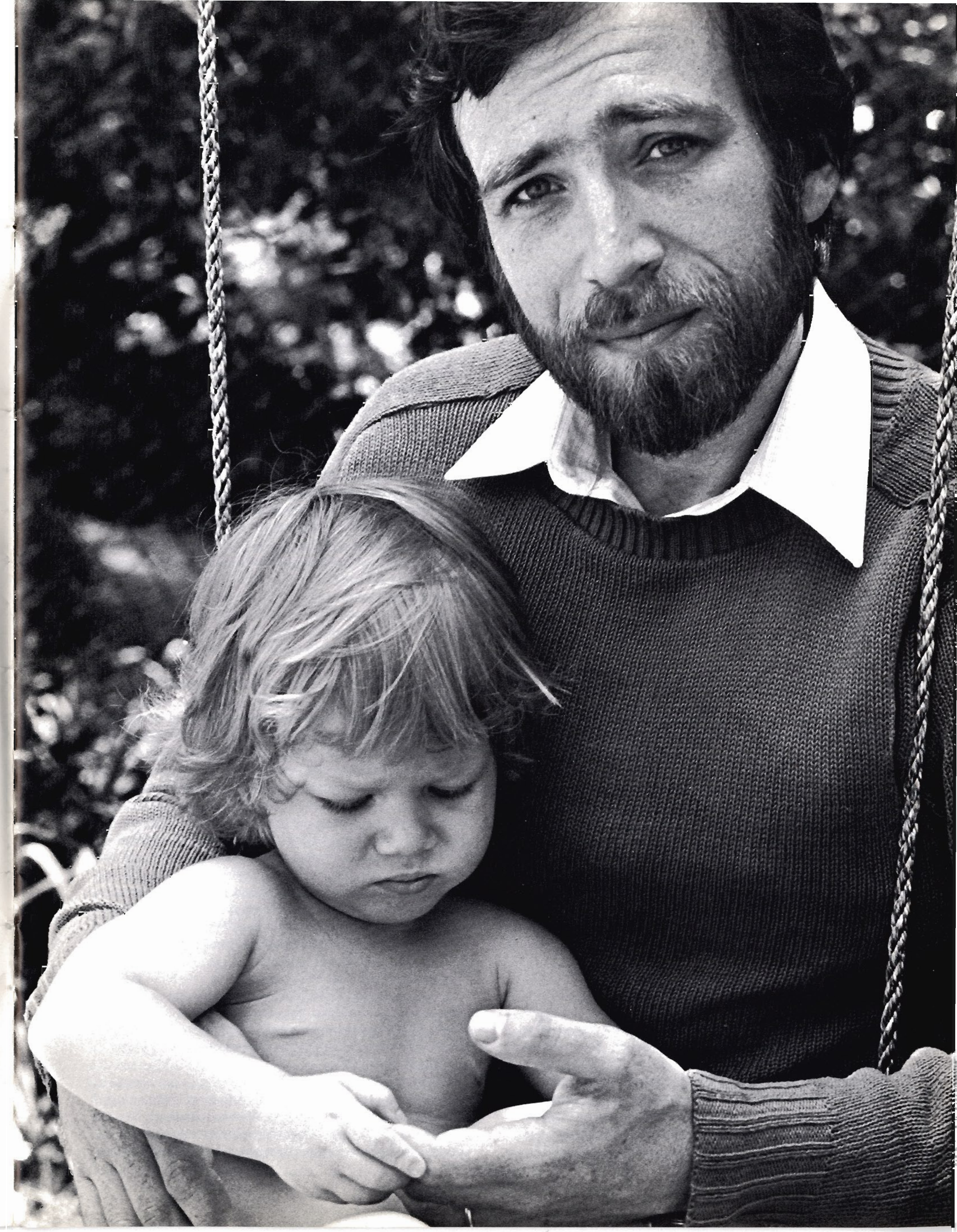
But he continued to ponder the question. His instinctive attachment to his daughter could not be explained by the kinds of hormonal changes that beset breast-feeding mothers, and he doubted that it had sprung purely from social forces. The most plausible explanation, he would later write, is that over the course of history men and women alike have developed "a deep well of ancient, stereotyped emotion, thought, and action" that is passed on, somehow, through our genes.

Konner devotes a chapter of his book *The Tangled Wing* to an account of that visit to the doctor and his subsequent musings. Entitled simply "Love," the chapter recounts the findings of studies on mother-infant bonds in several animal species. Although Konner never specifically answers his question about the source of his love for Susanna, he points out that for the human race to survive, parents must provide their young with constant attention and care; and he argues convincingly that the parent-child bond springs more from "instinct" — from biological factors — than from the social determinants touted by many behavioral scientists.

"What one would like to know," he says, "is what the physiological setup is in the parent that makes the reaction — the love — possible. And why that particular child instead of another? The interesting question about child abuse is not why it happens, but why it doesn't happen more. The sense of annoyance or anger one feels toward a screaming infant is a typical reaction.

"The stress that goes with having a child may not be incidental. There may be something in it that triggers a hormonal reaction that translates physiologically into a loving, caring reaction. I wouldn't pretend to know what those reactions may be. But it's a theory that can be supported by previous studies and that bears further investigation."

The possibility that love may flow from an archetypal pool of emotion is only one aspect of the range of human feelings explored in the thirty-seven-year-old anthropologist's book. Subtitled *Biological Constraints on the Human Spirit*, *The Tangled Wing* discusses in lay terms



Melvin Konner and son Adam, age two

Marjorie Shostak

how human nature may have evolved and how physiological changes mold our behavior. The book was published in 1982 by Holt, Rinehart, and Winston and has sold more than 30,000 copies in cloth and paper. Its eloquent style and ambitious scope — including forays into the halls of psychology, psychiatry, neurology, and sociobiology — have won national recognition for Konner, who last fall moved to Atlanta from Boston to take up his duties as chairman of Emory's Department of Anthropology.

The central theme of *The Tangled Wing* hinges on Konner's belief that human nature, like the human body, has evolved slowy over time and that emotionally we are more like other members of the animal kingdom than many social scientists admit. "The fundamental point is that there's an absolute continuity between human life and experience and the rest of the living, natural world," he says. "Evolution is every bit as much a determinant of the function of the human spirit and human soul as it is the determinant of the function of the human body. In fact, those two things are inseparable.

"An understanding of the human spirit and where it's headed and how it can be more fulfilled must rest on a recognition of that continuity and of the enormous depth of the history of life. Without that understanding, which millions of people explicitly reject, there cannot be any understanding of the human mind, human emotions, human actions."

A SOFT-SPOKEN MAN who punctuates his sentences with long, thoughtful pauses, Konner nonetheless presents his arguments — verbally and in writing — with a force that suggests he has little patience for behaviorists and religious fundamentalists who reject out-of-hand the theory that biological factors play a major role in shaping human nature. He regards his own position as one that successfully meshes the biological and social sciences, and he intended *The Tangled Wing* to be a broad review of the studies that have been conducted on behavior from both perspectives. "Every so often someone must say: now is a time to stop and see what we know," he writes in the book's preface.

> Without such pauses, epistemology — the process of knowing — is a bargain basement, shoppers jostling and shouting as they grab at a garment that fits and one that, momentarily, is in style. . . . Knowledge does not automatically order itself in human terms, and if this is true of science generally, it is all the more true of the sciences of human behavior.

Similar metaphors pepper the book: he writes of the thalamus, a component of the upper brain stem, as "the major way station of incoming sensation," of the heart as "a sticky, fibrous pump." He quotes Galileo, Shakespeare, Sappho, Leo Tolstoy, and Henry James. Yet among the poetic images lie several decidedly dismal subthemes. While love has biological determinants, fear, violence, and rage — love's antitheses — are also deeply rooted in our physiology. In fact, Konner maintains that humankind has an inherently violent, aggressive nature and that the world might be a safer place if politicians would heed that simple fact.

Toward the end of the book, Konner attacks a dominant principle of social and behavioral science — the belief that because human behavior is inherently good, intelligent, and cooperative, the problems of individuals and society can be easily fixed. This article of faith leads to what he calls, with admitted unkindness, the "tinker theory" of human behavior.

> A fuse has blown in the child-rearing process or a tube has overheated in the psyche or an evil madman has taken over the controls or some blunderer has ordered the wrong grade of concrete for the foundation of the economy. . . . All we need do is some tinkering: change the teaching apparatus or administer the right kind of psychotherapy or kick out the king and queen or institute socialism or at least print less money, and then everything will be just fine. If you can do more than one of these things and, preferably, get rid of your present wife at the same time, you will not only be just fine, you will stumble upon paradise on earth.

"The idea," Konner says, "is not that tinkering is worthless but that tinkering will not eliminate the flaws of the human condition. It may in some cases make things better. But will there be a time in the future when society and culture will be so constructed and human knowledge will be so advanced, when political forms will be so pure, that the vast majority of people will be satisfied? No. Absolutely not.

"My belief is that Utopian tendencies lead to the worst outcome. The worst outcome is prompted by the fundamentalists' insistence that everything will be all right, 'provided you do it my way.' It's a problem with all extremist views, from far left Utopians to scientific Utopians to Jerry Falwell. People tend toward unhappiness because of unrealistic hopes and expectations. It's fine to be dissatisfied; it's always good to work for something better. But there's such a thing as appropriate dissatisfaction that doesn't hope for perfection."

Many problems facing us are unlikely to be solved unless humankind evolves to a higher plateau, Konner believes, and his view of our imperfect state is metaphorized in *The Tangled Wing*. It is not until the book's closing pages that he explains the meaning of the title by relating an incident that occurred while he was in college in New York. One day he gained entrance to the laboratories at the American Museum of Natural History and encountered a scientist who had spent much of his adult life studying the remains of an archaeopteryx, a prehistoric tetrapod with feathered wings. The creature's crumpled skeleton had been preserved in a slab of rock.

At one point the scientist remarked that the archaeopteryx was similar in some ways to man. When Konner asked him to explain, he replied, "Well, it's such a transitional creature. It's a piss-poor reptile, and it's not very much of a bird."

Konner was so struck by that image that he set about reexamining his beliefs on the importance of humankind within the history of life. Nearly twenty years later he would write, "It seems to me we are losing the sense of wonder, the hallmark of our species and the central feature

of the human spirit. . . . I suspect it is simply that the human spirit is insufficiently developed at this moment in evolution, much like the wing of the archaeopteryx."

ALTHOUGH KONNER conceived the idea for *The Tangled Wing* in college, his desire to share the fruits of his research with a popular audience was in part the product of his relationship with his parents, Irving and Hannah Konner. Raised in a working-class Jewish neighborhood in Brooklyn, Konner remembers his childhood as typical in all but one respect: both of his parents were deaf. "It's always been a little difficult for me to understand scientists who have no interest in communicating their work to the public, perhaps because I came from a very modest family and because of my parents' deafness," he says. "I grew up in a world where a great deal of effort each day was spent on simple communication."

Konner's parents also profoundly influenced his choice of a career through their respect for higher education and, inadvertently, through their Orthodox faith. Devoutly religious for most of his childhood, Konner grew increasingly dissatisfied with his religious heritage during high school, and by his freshman year at Brooklyn College he had completely ceased to believe in God. In his search to find a replacement for religion he turned to anthropology, a discipline he thinks of as "a philosophy with data."

"People who care about human nature but don't care about collecting data or concrete facts take the back door and go into philosophy," he says. "People who do care about examining data go into anthropology, psychology, psychiatry. At any rate, I became very interested in studying anthropology because it's one of the few professions where one can look extensively at the human spirit."

After his graduation from Brooklyn College in 1966, Konner applied to the graduate program in biological anthropology at Harvard University. He chose Harvard over other schools so he could study under Irven DeVore, an anthropologist who had begun to examine the evolution of the human spirit.

In 1967 Konner received his master's degree from Harvard and began the initial research for a doctoral study on infant development and the bonds between mothers and infants in the !Kung San, an African hunting-and-gathering tribe with a social order that had changed little since prehistoric times. Two years later he traveled to Botswana's Kalahari Desert with a team of anthropologists to spend twenty months among the !Kung, who are known for their unusually peaceful, egalitarian social practices.

No other scholars had studied infant development in the !Kung, and Konner hoped his fieldwork would provide insights into the evolution of humankind and modern society. But just as important, he hoped to find clues for alleviating the ills he believed to be endemic to American society — our emphasis on material possessions, the fragmentation of families, and the development of a political system geared toward waging war. "I was very naive," he says. "My naiveté was a product of the historical period, I think; at that time all young people who were in any way thoughtful were questioning society's basic structure, how people should live and so on. I went to Africa under the assumption that there had to be societies that were much more fulfilling to live in than American society in 1969.

"I told the !Kung, in effect, that I wanted to look at their society to see how ours might be improved. I assumed that we Americans were people of such obvious good will that the !Kung would welcome us as members of their group and treat us as equals. We sweated it out, slept in the sand, and learned the language, which is unwritten and which very few people have ever learned. We paid our dues and it still didn't work. They kept finding ways to keep us in our place. I would say, though, in retrospect that we made a couple of friends."

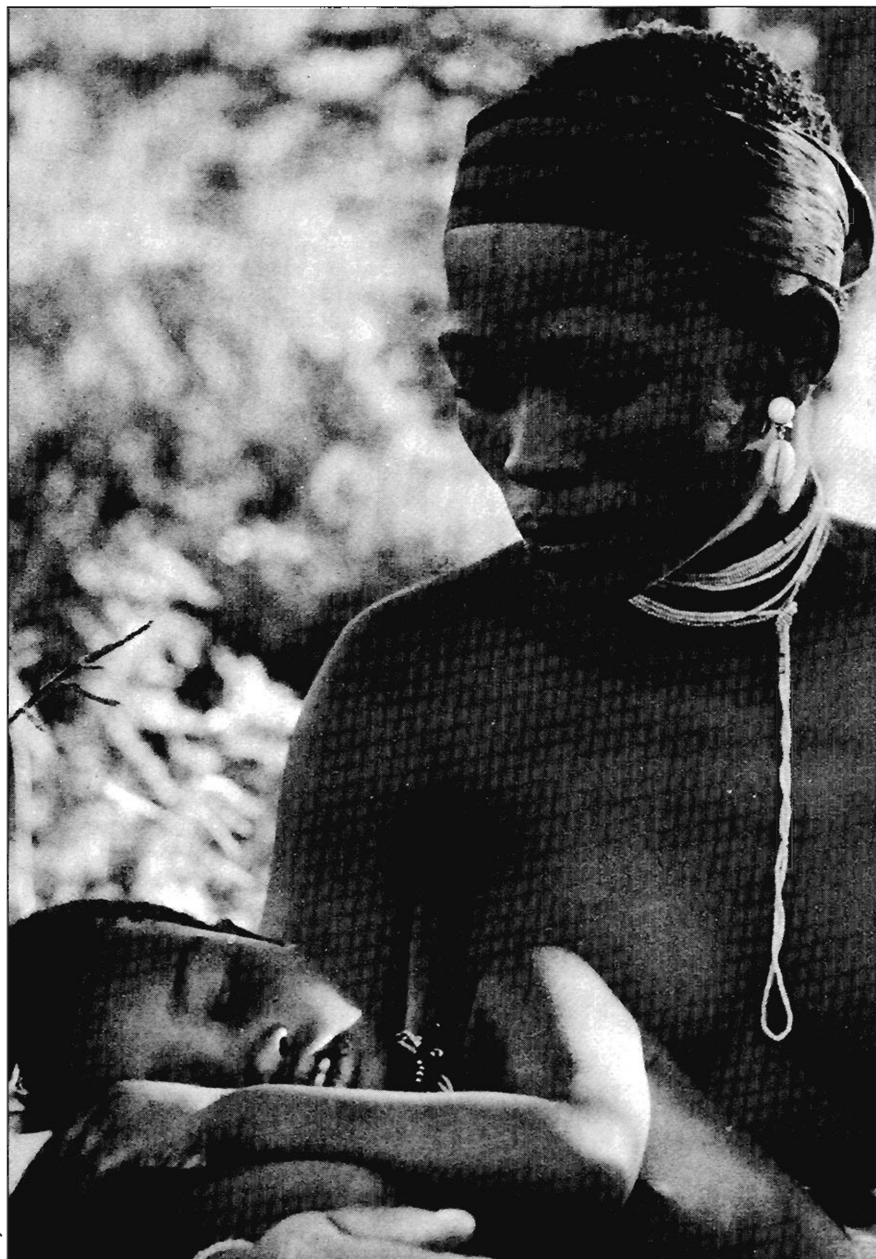
Although Konner was unable to penetrate the !Kung's inner circle or find solutions to American society's ills, he returned to Boston with enough material for a dissertation on the mother-infant relationship and infant behavior and development. In a book edited by Nicholas Blurton Jones and published by Cambridge University Press in 1972, Konner cited evidence from his work among the !Kung San to suggest that human infants display similar patterns of behavior, regardless of their cultural backgrounds.

His tenure with the !Kung San renewed his faith in humanity; contrary to the Hobbesian characterization of life among primitive peoples as "solitary, poor, nasty, brutish, and short," Konner found the !Kung's social order to be "based on human decency, respect for others, sharing, [and] giving. Far from brutish, it is courageous, egalitarian, good-humored, philosophical — in a word, civilized — with an esthetic so fine its very music touches the gods."

Konner received his Ph.D. from Harvard in 1973. He spent the next several years on research projects at the Massachusetts Institute of Technology's Laboratory of Neuroendocrine Regulation, and in 1974 he also began teaching undergraduate courses at Harvard. The following year he returned to Botswana for a five-month follow-up study on infant and child development among the !Kung San. In a paper coauthored with Carol Worthman and published in *Science* in 1980, Konner showed that the tribe's practice of nursing children frequently and for up to four years has physiological effects that prevent mothers from becoming pregnant until after their children reach the age of three, thus providing a natural method of birth control. (A subsequent study conducted in Boston on mothers in La Leche League, an organization whose members practice nursing techniques much like the !Kungs', produced similar results. Konner collaborated on the project with Marjorie Elias, a Harvard psychologist.)

In 1976 Konner was appointed assistant professor at Harvard. *The Tangled Wing*, begun two years later, would not appear until 1982, in part because of the amount of research it required. As Konner culled biomedical literature for studies to include in the book, an ambition he had held since childhood began to dog him. In 1980 he took a leave of absence from his faculty position to enter Harvard Medical School.

"I didn't go to medical school when I graduated from college because it wasn't the thing that an intelligent young person in the sixties would do," he says. "It was



Marjorie Shostak

In his book The Tangled Wing, *Konner argues that the bonds between parents and children spring from "a deep well of ancient, stereotyped emotion" that is passed on, somehow, through our genes.*

!Kung woman and child

too much of a limiting, authoritarian profession for that moment in time. But as my research became more and more biologically and biomedically oriented, I decided I wanted to have a more practical dimension in which to apply my knowledge. So I went back with the idea of studying neurology and psychiatry, of learning more about the biological sources of behavioral abnormalities."

The Tangled Wing appeared just as Konner entered his third year of medical school. The book immediately won the praise of reviewers in *The New York Times*, *The Washington Post*, and such unlikely publications as *Vogue*, and the editors of *Science 82* selected it as one of the best science books of the year. But the respected British social behaviorist Edmund Leach criticized the book in *Nature* as sentimental and unscientific and suggested that it would make a good Christmas present for a maiden aunt.

Leach complained about what he called Konner's "indecisive cordiality to all comers" — his position that a blend of social and biological forces sculpt human behavior. "Leach wrote, in effect, that I was only pretending to be balanced," Konner says with a grimace. "He said my book made him long for the old shoot-'em-up days when hard-line scientists would argue that human behavior is determined by biology and genetics only and the idea that there were social determinants was baloney."

Leach's objections to *The Tangled Wing* underscore the intensity of the debate between social and biological behaviorists. Although Konner says he was careful to choose from the best of both disciplines, he disparages some branches of social science as no more than glorified quackery. Yet he stops short of a complete condemnation of social behaviorism. "Part of the thrust of modern anthropology, particularly more recently, has been to unify the human sciences with the biological sciences and to place the human species in the overall stream of the evolution of the cosmos," he says. "Although some social scientists have contributed quite a bit to the erroneous overestimation of the difference between humans and

other animals, their overall thrust has been to look at humans as part of the study of the natural world."

Several reviews make note of Konner's provocative suggestions — made somewhat facetiously — for minimizing humanity's bent toward violence. Early in the book he cites evidence that men are inherently more aggressive than women, in part because of the presence of large amounts of testosterone at certain stages of life. Later he mentions additional research showing that primitive societies tend to be more peaceful where men and women care for children together instead of dividing their labors along traditional "male" and "female" lines. Perhaps, he writes, we could reduce the chance of a future world war by placing more women in powerful government positions and by restructuring sex roles in an egalitarian fashion.

"There are obviously problems with those suggestions," he says, "one of which is that the nature of government has certain determining effects for whoever is in it. You need to have a certain aggressive tendency just to get into a position of power. Another problem is that the presence of a government of women in a world of other governments of men would constrain the women to behave like their counterparts. That's why you get Margaret Thatcher and Indira Gandhi committing just as much or more violence than the average male leader. They have to show that they're just as tough.

"It's an idea that could be right. But one of its main functions is not to be right, but to show that you can start from a biological determinist's perspective of fact and arrive at a politically progressive conclusion. That's something most opponents of biological explanations of behavior are not willing to concede.

"One of the unnerving things about human nature and human history is that all the evil that has been done has rarely been done explicitly in the name of evil impulses. It's always in the name of some higher principle, some vision of the future, or some sort of absurd pride, like a gorilla banging his chest in the jungle. A general in a holy war or a soldier in a communist revolution who believes that his impulse to kill is pure and will lead to wonderful things has no recognition of the continuity of his impulse and the impulse that a chimpanzee male has in the same direction. I believe firmly that a person who has a true understanding of the nature of those impulses is much more likely to be able to resist them and to keep from carrying them to some terrible extreme."

THE TANGLED WING was still in galley form in the spring of 1982 when Konner received a letter from Robert A. Paul, then acting chairman of the Department of Anthropology at Emory. The letter was one of fifty Paul sent to promising scholars across the country as part of the University's search for a new chair who could build an undergraduate department of national repute. Only five years earlier, no anthropology department had existed at the University. The few anthropologists on the faculty had worked in an interdisciplinary program dominated by sociologists.

By the time Paul mailed his letters, the University had been searching for an anthropology chair nearly four years. "The feeling was that we needed to find a junior faculty member who was just becoming nationally prominent and who would see a move here as an opportunity to build a program from scratch," recalls Paul, a cultural anthropologist and the director of the Graduate Institute of the Liberal Arts. "But when the search committee would find a candidate it was interested in, something would happen. The person would be hired away by another school or would decide not to make a move. During that time, though, we had a chance to put a great deal of thought into exactly what kind of department we wanted to build and what we needed in a chairman."

The members of the search committee agreed that the development of a substantial curriculum would require a limited focus on only one or two of the discipline's four principle areas — cultural anthropology, physical anthropology, archaeology, and linguistics. "We invited several distinguished anthropologists from other institutions to advise us on what size the department should be, and we took a hard look at what Emory already had to offer anthropologists," Paul says. "There's the Yerkes Primate Center, one of only a few centers of its kind in the country. There's a renowned medical school right on campus. It was easy to decide that one of the areas we should concentrate on was physical anthropology. We also decided we wanted the department to take a humanitarian approach, which meant bringing in more cultural anthropologists."

Paul happened to be at Stanford University one day when Konner gave a guest lecture on his work with the !Kung San. Impressed by the young Harvard professor, Paul checked into Konner's background. "The more I heard about his work, the more I realized that he would be perfect in building a program that took the medical and life-sciences emphasis the University was interested in," Paul says. "Then when I found out he was interested in literature, it strengthened my opinion of him.

"He sent us the galleys of the *The Tangled Wing*, and we read them with great interest. Here was someone with a very impressive scholarly background with the ability to reach a larger audience, and he was interested in culture. Most physical anthropologists you find, no matter how talented they are scientifically, are simply unequipped to talk to cultural anthropologists. And vice versa."

Konner was in his third year of medical school when he received Paul's letter, and he had settled into his studies with the intention of finishing his degree as quickly as possible. Nevertheless, the possibility of moving to Atlanta intrigued him. "Emory is one of the few academic settings in the United States that has an optimistic attitude at this moment in history," he says. "I think there are a lot of wonderful things about Stanford and Harvard and the University of Chicago and a lot of other schools. I'm not saying anything bad about those places except basically one thing: they're not going anywhere. Their programs are kind of rigidly established, and there's not very much room for a young talented person to move around in.

"The leadership at Emory has a vision of building a great university in the Southeast, and they have every reason to succeed. It's very nice to be a part of something where the people involved have a sense of mission."

The number of faculty positions in Emory's anthropology

"With something like the development of walking, nobody has any problem admitting it's tied to nervous system development. But many people have a terrible time admitting that the capacity for love and the capacity for smiling in greeting may be tied to brain development."

Konner and Susanna, now five

department has expanded from three to six since Konner's appointment in 1982. That same year cultural anthropologist Bradd Shore, the author of a well-received analysis of Samoan social structure, accepted a position as an associate professor. This fall Joan Silk, a primatologist from the University of California at Davis, will begin an appointment as an assistant professor. In an unusual arrangement, Silk will split the position with her husband, mathematical ecologist Robert Boyd, who is currently teaching at Duke University. The search for a seventh faculty position will begin this year, and an eighth position will be added by the fall of 1987.

"We're going to try and build the department in a fairly balanced way, with half of the expertise in cultural anthropology and half in physical anthropology," Konner says. "So far we've managed to recruit only people who are truly interdisciplinary in those subfields, which is exciting. We're probably never going to do very much in archaeology and linguistics unless the administration gives us a mandate to expand into those areas. It's possible to have a really quality program with eight people if you limit the scope."

The department hopes to establish a graduate program in anthropology, but Konner doubts that will occur for several years. "We're happy to take things slowly and wait until we have a real critical mass of people," he says. "Then we can announce a graduate program that's specialized in certain areas where our greatest strengths lie."

So far Konner has been unable to turn his full attention to his new role as associate professor at Emory because of the pressures of medical school. He accepted the appointment at the University on the condition that he be allowed to delay his move to Atlanta until 1983, when he would finish his course work at Harvard, and he requested a leave of absence for the 1984-85 school year that would enable him to complete his medical rotations. He also asked for a joint appointment as an assistant professor of psychiatry in the School of Medicine. "I wanted to maintain a close relationship with the medical school," he says. "This was a way of doing it and of pursuing my study in the abnormalities of behavior."

Konner expects to receive his M.D. degree late this year or early in 1985. At one time he thought he might go into medical practice, but he has since come to view his medical studies as simply one more step in his evolution as a scholar. "I think I discovered some things about myself by going to medical school," he says. "I'm interested in research and scholarship. Medical practice is too repetitive; it seems too much like a holding pattern against chaos. In research, it may be an illusion, but you do feel like you're moving forward.

"But I think by going to medical school I've developed a certain kind of judgment I didn't have before. I'll give you an example. Before I went to medical school, I was very intensely aware of certain findings and recommendations on the relationship between breast feeding and the immune protection it provides. But after being in a pediatric emergency room and seeing children who are sick, the whole issue of the allergies that might be caused if you're not breast-fed takes a relatively small place on the landscape with all these vast forces of germs and trauma and genetic problems.

"I've developed a perspective on what problems are critical in society and what's of a lesser priority, and I've been able to see through some cultural prejudices. I doubt that I ever would have gotten that perspective without going to medical school."

Konner's medical studies and his responsibilities as chairman have necessarily curtailed his scholarly work in anthropology. However, since his arrival in Atlanta he has become involved in several projects with University investigators, including a planned pharmacology study with Associate Professor of Anthropology Neal Smith on the effects of amphetamines on the social behavior of monkeys. He has collaborated with Radiologist and Assistant Clinical Professor Boyd Eaton on a nutritional study that provides evidence that the diets of hunting-and-gathering tribes were more nutritionally sound than the average American diet. And he is only now writing a paper with Carol Worthman on a 1975 study of hormone levels in !Kung San hunters. (The results of that study suggest that the level of testosterone — the hormone that has been linked to aggressive behavior in males — fluctuates less than normal when !Kung men embark on hunting trips. That and other evidence has led Konner and Worthman to suggest that humankind's innate aggressiveness does not stem from our early dependence on hunting as a food source, as some anthropologists have claimed. "The hormonal changes that are associated with hunting are different from those associated with aggression, which would make it seem like the two behaviors evolved for different purposes," Konner says.)

But Konner's primary project is to expand his study on infant development for his medical thesis. "I'm trying to identify some cross-cultural universals — those traits that all infants develop at certain times, like social smiling — and compare them to brain development," he says. "With something like the development of walking, nobody has any problem admitting it's tied to nervous system development. But many people have a terrible time admitting that the capacity for love and the capacity for smiling in greeting may be tied to brain development. It should be obvious that a nervous system capable of generating bipedal walking, an incredibly complicated motor-action pattern, is also capable of generating these other things."

A year ago Konner moved into a house on Clifton Road with his wife, Marjorie Shostak, an ethnographer and the author of a book on the life of a !Kung woman that has been praised as an exceptional work by *The New York Times* and *The New York Review of Books.* Despite the obvious care with which the house has been furnished, it is one of those that bring to mind the phrase "lived in." A cardboard doll house, three feet high, sags against one wall of the dining room. A pair of children's sneakers lie in the floor of the front hall. Above the shoes hang two frowning wooden masks from Africa.

As Konner talks, the house reverberates with the shrieks of two-year-old Adam and his sister, Susanna. "She's more charming now than she was as an infant," Konner says wryly as Susanna bounds into the room, "but her father's love for her is still something of a mystery at certain times."

The comment neatly encapsulates the conclusions Konner has reached about the depth of the human soul. His faith in the role biological elements play in molding behavior is not all-encompassing, and he would prefer that the human spirit remain something of a puzzle that can never be wholly explained by physiological pulls and shoves. Love — be it between family members, men and women, or people of the same sex — will continue to baffle science for some time to come. "And to all such mysteries," Konner writes, "to all such incomprehensible possibility, I say, Bravo." □