HARVARD Magazine

September-October 1982
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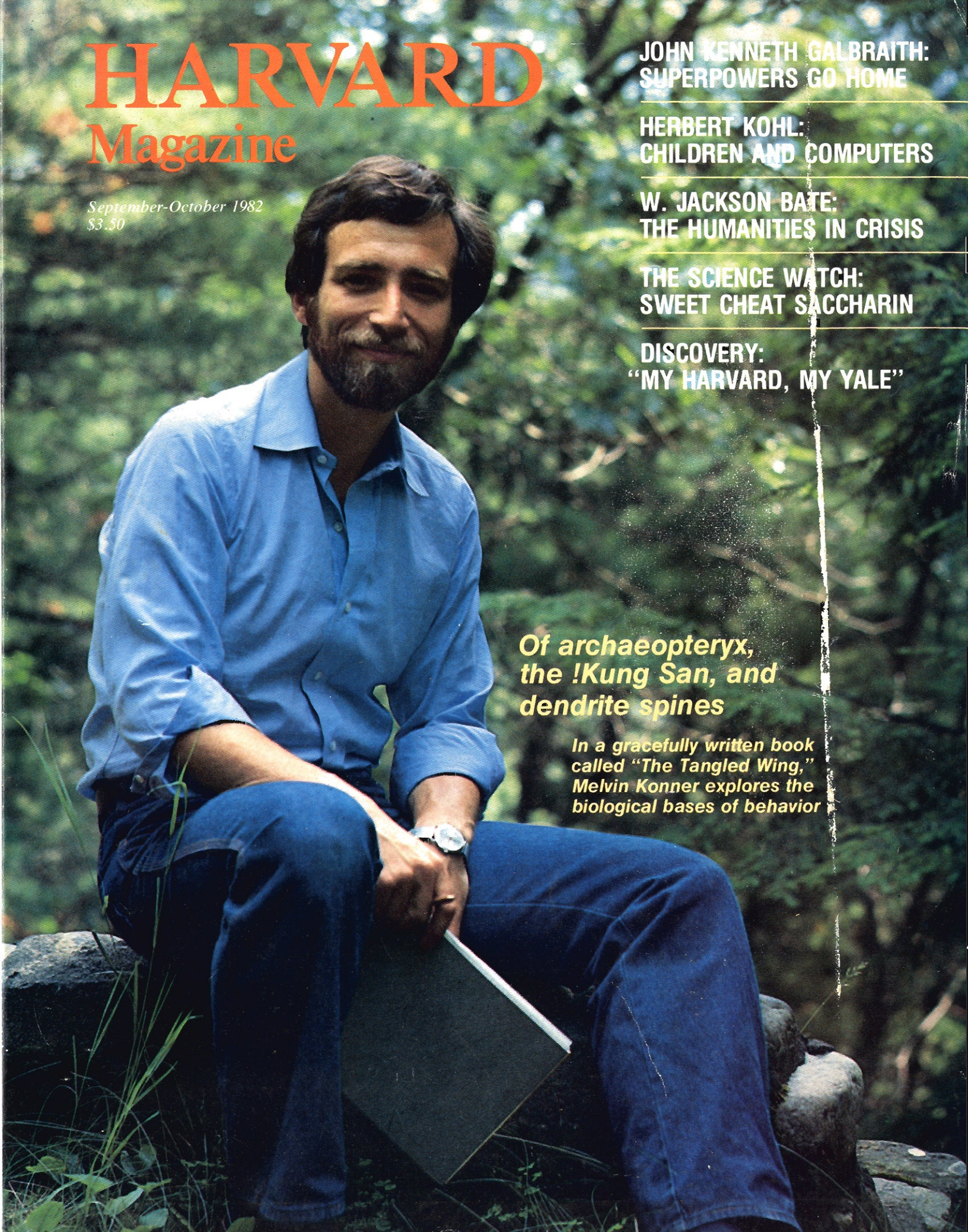
JOHN KENNETH GALBRAITH:
SUPERPOWERS GO HOME

HERBERT KOHL:
CHILDREN AND COMPUTERS

W. JACKSON BATE:
THE HUMANITIES IN CRISIS

THE SCIENCE WATCH:
SWEET CHEAT SACCHARIN

DISCOVERY:
"MY HARVARD, MY YALE"



Of archaeopteryx, the !Kung San, and dendrite spines

In a gracefully written book called "The Tangled Wing," Melvin Konner explores the biological bases of behavior

HARVARD Magazine

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FACING PAGE: Dante Gabriel Rossetti's *The Blessed Damozel* (oil on canvas, 1871-77). Rossetti, a founder of the English Pre-Raphaelite movement, was the subject of a centennial exhibition at the Fogg Art Museum this summer continuing through September 12. Photograph courtesy of the Fogg Art Museum; the painting was the bequest of Grenville L. Winthrop.

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This issue

Increasingly conspicuous among today's literary figures are scientists who explain their fields in prose that is lively, luminous, even lyrical. One thinks of such writers as the biologist Lewis Thomas (*The Lives of a Cell, The Medusa and the Snail*); paleontologist Stephen Jay Gould (*The Mismeasure of Man*); the late anthropologist Loren Eiseley (*Darwin's Century, The Firmament of Time*, half a dozen more); physicist Jeremy Bernstein (essays and profiles in the American Scholar and the New Yorker); and physician William Bennett, who writes this magazine's "Science Watch." A worthy addition to this growing company is biological anthropologist Melvin Konner, whose provocative new book is titled *The Tangled Wing: Biological Constraints on the Human Spirit*.

Like Thomas, Bernstein, and Bennett, Konner is Harvard-trained, having taken his Ph.D. in 1973. From 1974 until this year he taught in the anthropology department, giving advanced courses in behavioral biology and developing an innovative General Education course with Professor Irven DeVore. Out of that course, "Biology and Behavior Through the Life Cycle," came *The Tangled Wing*. Behavioral evolution is a bitterly controversial subject just now, but Konner allies himself with no school or theory. He seeks instead to mediate

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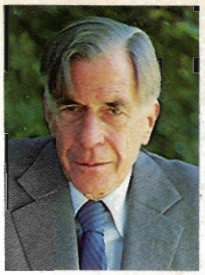
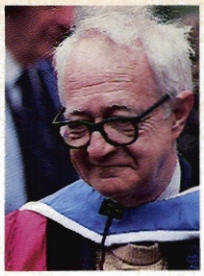


Galbraith



Bate

the antagonisms of geneticists and environmentalists, and to synthesize claims that seem to conflict. A lucid and graceful writer, Konner is well read not only in the literature of his field but in literature as a whole; his prose is embellished with quotations from such non-scientists as Dante, Pope, George Eliot, Henry James, Rilke, Wallace Stevens, Robert Lowell, Joan Didion, and Adrienne Rich.

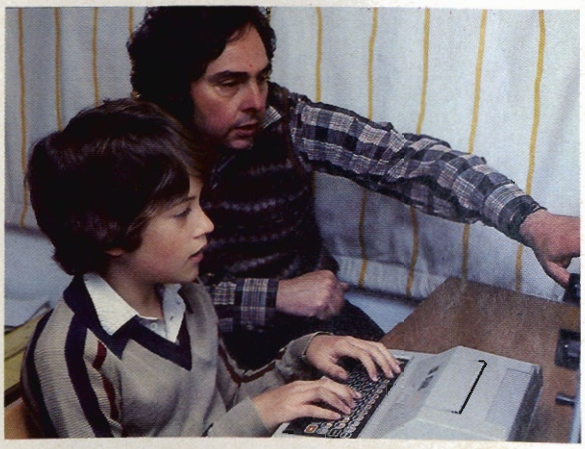
Konner is also a man who knows how to manage his time. While completing his book he was also completing his second year of study at Harvard Medical School. He will continue his training there while preparing to take up a joint appointment as chairman of Emory University's anthropology department and assistant professor of psychiatry at its medical school. For the next academic year he will also be a research associate at Harvard's Peabody Museum.

Philip Zaleski's profile of this high-energy scholar begins on page 36. A newcomer to our pages, Zaleski is a Cambridge free-lancer who writes regularly for the Boston Phoenix. He and his wife, Carol, a graduate student in the study of religion at Harvard, will spend the fall in the Blue Ridge Mountains as fellows of the Virginia Center for the Creative Arts. She will be working on a study of near-death experience; he will work on a novel.

Among other contributors to this issue are two of Harvard's most prominent teachers, John Kenneth Galbraith and Walter Jackson Bate. Perhaps the best known of American economists, Galbraith has always been interested in global issues. In the article beginning on page 29, he contends that the time has come for the superpowers to pull in their horns in Third World countries, or risk damaging consequences. The Paul M. Warburg professor of economics emeritus, Galbraith starting teaching at Harvard in 1934. He has received nearly two dozen honorary degrees and has written almost as many books, including such contemporary classics as *The Affluent Society* (1958) and *The New Industrial State* (1967). Officially retired since 1975, he nevertheless maintains a busy schedule of writing, lectures, and travel.

Jackson Bate, who is Kingsley Porter University Professor, is deeply worried about the effects of overspecialization on the humanities. In the strongly worded article that starts on page 46, he describes the crisis in English studies—his own field—and urges remedial measures. Bate graduated from Harvard College in 1939, took his Ph.D. in 1942, and joined the faculty in 1946. His biographies of John Keats (1963) and Samuel Johnson (1977) both won Pulitzer prizes, and he has thrice received Phi Beta Kappa's Gauss Award for the best book concerned with literature. No one else has received it more than once. At three different times in the past 25 years he has served as chairman of the department of English and American literature. All Bate's written works, and his teaching, stress the interrelation of literature with human life. His most recent project, in collaboration with associate professor James Engell, is the authoritative edition of Coleridge's *Biographia Literaria*, which may be the major classic of literary criticism. Bate is now at work on a book to be titled *Harvard Humanists, 1890 to the Present*. It will include "The crisis in English studies," revised to refer more specifically to Harvard figures.

In a special guide that begins on page 14, educational theorist Herbert Kohl makes some important points about children and computers. A practicing teacher who lives with his wife and three children in Point Arena, California, Kohl is the author of more than a dozen books, including *The Open Classroom* (1970), *Thirty-six Children* (1973), *Growing With Your Children* (1979), and *Insights: The Substance and Rewards of Teaching*, published last spring. Kohl, who graduated from



Herbert Kohl and son Josh, eleven.

Of archaeopteryx, the !Kung San, and dendrite spines

In a gracefully written book called The Tangled Wing, *scientist Melvin Konner draws on many disciplines to help untangle the biological bases of behavior.*

by **Philip Zaleski**

New York City, 1965. American Museum of Natural History. The young man, a budding anthropologist, skips past the stuffed elephant stampede, the glass-eyed aborigines, the blue whale floating in midair like some unclassified leviathan of the clouds. He penetrates to the back rooms, the sanctum sanctorum where the real work goes on. Here, as he will later recall, stand "labyrinths of storage cabinets of bones and skins and rocks and impossibly ancient fossils"—calling cards left by the lost species of the earth. And here he meets an elder scientist, an expert on a reptilelike bird of the Jurassic period (180-140 million years ago) known as archaeopteryx. What wisdom can the sage convey to his admiring acolyte? Only that there's not much difference between an archaeopteryx and a human. What? That frightful creature, scrawny as a crow, its tiny wings tangled in fossil rock? "Well, you know," continues the specialist, "it's such a transitional creature. It's a pisspoor reptile, and it's not very much of a bird."

* * *

Cambridge, Mass., 1982. The young man, Melvin Konner, still dwells upon those startling words. Human beings, a "transitional" form. But transitional to what? A radiant future or a radioactive grave? Our response depends, says Konner, upon the solution to some additional puzzles posed in the first sentence of his elegant new book on human behavioral biology, *The Tangled Wing* (Holt, Rinehart and Winston): "Why we are what we are, why we do what we do, why we feel what we feel." These questions have dogged Konner throughout his life, from the brownstones of Brooklyn to the brick-and-ivy walls of Harvard to the makeshift grass huts of the Kalahari Desert; from his former Harvard post as associate professor of biological anthropology to his current twin roles as student at Harvard Medical School and chairman of the anthropology department at Emory University. *The Tangled Wing* offers a preliminary scouting report on his answers, "an account of the first few steps in an immense journey." Even at this early stage, Konner's travel bags bulge with items drawn from a variety of disciplines, including psychiatry, ethology, sociobiology, cognitive psychology, neurology, and economics. Packed alongside his laboratory findings are citations culled from such extrascientific sources as Henry James, William Shakespeare, and Adrienne Rich. There's even a flash or two of fantasy; one chapter opens with a mock editorial from the Galaxy Times, circa 200,000 A.D. This heady mix of science and humanities aims at arousing our sense of wonder, defined by Konner as "a rapt attention" and "a sort of wonderment at the spectacle of the world, and its apprehensibility by the mind; a focusing, for the purpose of elevation; an intelligent waking dream." This is, he writes, "the key to being human . . . in that capacity, it seems to me, we find our greatest distinction, and in that, and that alone, may be our salvation."

A sense of wonder, a cheerful hello to all creation, certainly pervades Melvin Konner's household in Cambridge, just north of Harvard Yard. Perhaps it's the ever-present children. There's Adam, eight months old ("We call him the frog prince," Konner says. "Right now he looks like a frog, but in time he'll turn into a handsome prince"), who bubbles and burps throughout our conversation, and three-year-old Susanna, who scoots in and out like a bright-eyed clockwork toy. Marjorie Shostak, Konner's wife and author of the acclaimed *Nisa: The Life and Words of a !Kung Woman* ("a classic of anthropology that will be read many years after *The Tangled Wing* has disappeared," says Konner), steps in to greet the guests

Facing page: Vacationing in the Adirondacks, Melvin Konner substitutes pencil and pad for his usual writing implement, an IBM Selectric. The Tangled Wing, *his erudite, lyrical treatise on human behavioral evolution, is being published this fall. Konner then embarks on a challenging double life: continuing studies at Harvard Medical School while chairing the department of anthropology at Emory University, Atlanta.*

PHOTOGRAPH BY MARJORIE SHOSTAK

CHRISTOPHER S. JOHNSON

Konner at home with eight-month-old Adam. A biological anthropologist's knowledge of human behavior sometimes helps clarify Konner's role as a father. At other times, "I'm in as much of a quandary as any other parent. That is, very ignorant about the consequences of my actions."

and tweak her baby's nose. Spying the photographer erecting his camera and lights, she glances at Susanna.

"You shouldn't be in your nightgown."

"Yes I should! I should! I should!" shouts her daughter, sensing the photographer's approbation.

"Just write, 'When I entered the house at 8 a.m.,' " temporizes Shostak, grimacing at the noonday sun. But she needn't feel embarrassed. After all, her husband is almost as casually dressed. And then, too, this jubilant jumble of kids, plants, African carvings, art prints, and books galore radiates enough warmth to set the photographer's film on fire.

Konner pours some coffee, folds his lanky torso into a beat-up couch, and begins to prod gingerly at his past. He speaks in a gentle, methodical manner, halting to reflect after every few words. "Normally I talk slowly," he tells me. "Today I'm going to talk even more slowly. I want to be sure to relay my thoughts properly."

Born into a "lower-middle-class Brooklyn family," Konner was raised an Orthodox Jew. "I was very religious as a kid—until I started college." This spiritual inclination, in its early intensity and its sustained concern for the fundamentals of being, strongly colored the course of his life. "Religion fulfills a deep human need, that's very obvious," he says. "It's one of the most powerful forces in human nature. But gradually I saw less and less point in talking about God, the afterlife, and the soul. So I began to look for a world view that would replace the one I had lost, that would help answer the same questions in a more acceptable way."

At Brooklyn College Konner found a solution, channeling his awakening skepticism into the rational ecstasies of scientific inquiry—a direction foreshadowed by his high-school passion for physics, mathematics, and history. Zeroing in on the problem of the origins of human behavior, he explored humanity's evolutionary roots ("pushing my interest in history back before the beginning of history") and the roots of the individual life cycle in infancy and early childhood. These parallel paths converged at Harvard, where he entered the Ph.D. program in biological anthropology. "It wasn't accidental that I came to Harvard," Konner says. "I was particularly interested in working with Irven DeVore. I'd read his book on primates while in college, and I sensed in it an emerging attempt to understand the evolution of behavior." During 1969-71, his scholarly research culminated in twenty months of field work among the !Kung San of the Kalahari Desert, hunter-gatherers familiar to earlier generations under the derogatory name of "Bushmen."

To exchange the Crimson and coffeehouses of Harvard Square for the campfires and warthog hunts of the

!Kung San seems a daunting venture for anyone. But Konner shrugs off the physical privations. "It was frightening," he says, "but mostly in an emotional sense. The way people prepare for field work is largely trivial—concerning themselves with climate, disease, living in a tent. The real pressures are social." Widely known as culture shock, this might be better termed culture cleavage. "The tough thing is being isolated from your own world, and being unable to bridge the gulf between you and a foreign society. That's especially true if you have naïve ideas about what's possible. I certainly did. I expected to get much closer to the San than I could, and I thought they'd be more interested in me than they were." This mismatched equation provoked some comic scenes. "When we first decided to move into the village, we asked one of the men to build us a grass hut just like his. He decided that we Americans had to have a spectacular hut, so he built us one twice the size of any other in the village. The first time it rained, the roof of the hut collected a giant puddle of water. And soon enough the puddle fell down on our beds. Our hut was just too large. It violated all the principles of hut architecture that the San had evolved over thousands of years. A nice object lesson in humility."

Zeroing in on the problem of the origins of human behavior, Konner explored humanity's evolutionary roots ("pushing my interest in history back before the beginning of history") and the roots of the individual life cycle in infancy and early childhood.

Lessons abound in this primitive world rich in sharing ("the smallest guinea hen or tortoise brought back from the chase may be split into ten pieces as it comes out of the fire"), devoid of war ("conflicts in the group are resolved by talking, sometimes half or all the night, for nights, weeks on end"), and knit together by sacred ritual. We glimpse the ways of our earliest ancestors—for if theologians see the pristine human condition embodied in Adam and Eve, most anthropologists detect it among hunter-gatherers such as the !Kung San. "Hunting-gathering," writes Konner, "was the crucible in which natural selection pounded at the grist for the human spirit as well as the human body." The !Kung San reveal the possibility even today of a "courageous, egalitarian, good-humored" society. And if such cultures form the roots of our evolutionary ascent, then they are the conduit through which those nutrients that sustain the human species must pass. When we uproot ourselves from primitive soil, we do so at our own peril. Yet Konner points out, a bit wistfully perhaps, that we observe the !Kung "to learn, not to mimic," and elsewhere he writes that "there is no going back . . . we are obviously committed to high technology."

Upon his return to America, Konner received his doctorate, did a stint as research associate at M.I.T.'s Laboratory of Neuroendocrine Regulation, and then walked to the front of his student classroom as a lecturer in anthropology at Harvard. Soon he was appointed assistant, and then associate, professor. But spurning the prescribed trajectory that ends in a full professorship, Konner took leave in 1980 to attend Harvard Medical School. This apparent retrograde motion, from professor to student, simply underscores the intensity of his quest. "I felt a need for a more complete education in human biology, of the kind that only comes in medical school," says Konner. "But that's not all. In high school I wanted to be a physician, and when I reached my early thirties I found this goal still in the back of my mind. It was now or never. And there was an even more compelling factor. I wanted to apply my knowledge in a more direct way. I wanted to come down out of the ivory tower. I wanted to get my hands dirty." This year Konner will reascend the ivory tower—while leaving smudges on its walls—juggling a dual appointment as chairman of Emory's anthropology department and as assistant professor in the psychiatry department of its medical school. "A complicated intellectual agenda," he calls it—and the sort of challenge he relishes.

Few challenges surpass that of elucidating human nature, the task Konner sets himself in *The Tangled Wing*. Other books have descended into the same poorly lit caverns: E. O. Wilson's *On Human Nature*, Carl Sagan's *The Dragons of Eden*, Robert Ardrey's *The Territorial Imperative*. "I like to think," Konner says, "that my book is considerably more balanced and sophisticated." There's no doubt that it's more comprehensive, tugging along a staggering cargo of information and insight. Konner's Harvard courses, especially Natural Sciences 19, "Biology and Behavior through the Life Cycle" (co-taught with Irven De-

MARJORIE SHOSTAK

Hunting with the !Kung San during a twenty-month field trip to the Kalahari Desert. "Hunting-gathering," writes Konner in The Tangled Wing, *"was the crucible in which natural selection pounded at the grist for the human spirit as well as the human body."*

Vore), and Anthropology 164, "Human Behavioral Biology," supplied the foundation. "It was precisely because I had invested ten years in reviewing the literature that I found it possible to contemplate writing a book like this. Most of the work has been done on a daily basis, before walking in to face those *very* frightening Harvard undergraduates."

At the heart of *The Tangled Wing* lies the notion of adaptation. In its genetic and evolutionary sense, this is "the fit of an organism to its environment by means of characteristics usually widely shared throughout a species," achieved through natural selection (such as, Konner mentions, the way the human species is adapted to running on two legs); in a physiological sense, it's "flexibility in the face of change" (the way a runner's body and mind will adjust to his athletic regimen). Equally significant is the fluid interplay between the two. "The ability to adapt as an individual," he writes, "has itself a genetic basis and is subject . . . to standard evolutionary change." Konner finds adaptation's fingerprint on a host of emotions including rage, fear, joy, love, grief, and lust, as well as on brain structure, brain functions, language development, and—a real briar patch for any scientist these days—gender roles. (He bluntly concludes that "men are more violent than women"; one culprit appears to be testosterone, that gonadal hormone that floods the blood of adolescent boys, turning Tom, Dick, and Harry into tyrant, desperado, and hood.)

In *The Tangled Wing*, Konner balances the conflicting claims of geneticists and environmentalists, melding their fierce antagonisms into a coherent whole that assigns equal credit to nature and nurture. . . . From this intricate tango of genes and environment, he draws some grim conclusions about human nature.

Throughout, Konner balances the conflicting claims of geneticists and environmentalists, melding their fierce antagonisms into a coherent whole that assigns equal credit to nature and nurture. One splendid example: A rat pup's cerebral cortex develops according to a strict genetic plan; pyramidal brain cells grow axons and dendrites, the dendrites sprout branches, the branches bristle with spines. All this is ordained. Yet rats raised in a deprived environment are deficient in branches and spines, while those brought up in a wonderland of toys and fellow pups show a surplus of critical brain-cell parts. "When I sit around listening to tedious, barren arguments about nature and nurture, heredity and environment, I think of the spines on the dendrites," writes Konner. "How amused they would be if they could listen to the pronouncements, 'Genes have no known effects on complex behavior!' and 'Most of mental function is determined by the genes!' "

From this intricate tango of genes and environment, Konner draws some grim conclusions about human nature. He describes what amounts to a scientific surrogate for religion's original sin. Our species, liberal sentiments notwithstanding, is hardly a choir of angels deprived by society of its peaceful birthright. We are genetically geared to aggression. Konner decries what he calls the "tinker theory" of human nature; tighten an economic bolt here, slap on some psychological Band-Aids there, and we'll all enjoy paradise on earth. The terrible fact, which we must confront in order to conquer, is that we possess "a deep vein of violence, perhaps attendant upon a too great sense of fright." Even those who "have been trained and conditioned to be nonviolent"—from Mahatma Gandhi on down—"retain the capacity for violence." Our willful obliviousness to this primordial curse can only keep us in bondage to war and chaos, and perhaps erase our species entirely. "If we don't take seriously the depth of the human capacity for violence," Konner somberly tells me, "a nuclear holocaust may well come."

There is a way out. Our genetic infrastructure, one source of our woes, also offers us a conditional reprieve. Konner writes that "increased lability"—our ability to change—"is in a sense the major product of human genetic evolution during the last few million years." The powerful sway of environment over human development implies that we can—to a limited extent—choose the way in which our violence erupts. "You have to correctly identify what can be changed and by how much," says Konner. "And if you reach an irreducible element in human nature that can't be altered by, say, a new course in school or a modification in infant care, your hands aren't tied. Once you learn that telling teenagers it's bad to break windows won't eliminate window breaking, you're free to try another approach." Such as putting screens over windows.

Konner suggests that militant nationalism, promoted to date largely by male politicians, might be ameliorated by placing women in positions of authority. "In our society," he says, "we reward or punish various activities in various ways. Using the same strategy of reward and punishment, we can have an influence on the course of human evolution. If you reward people for aesthetic or intellectual pursuits, you'll get a different result from rewarding them for climbing over each other's backs on the way to the top of a major corporation. It's especially important to discredit those people who take seriously the notion of large-scale warfare as a political instrument. If necessary, we must humiliate them. A political analyst came on television recently and described a nuclear attack on the United States as consisting of a few million deaths in North Dakota, while everyone else runs for their fallout shelters. People like that should be tarred and feathered." History proves, as Konner indicates, that behavioral patterns can change drastically within a few generations. Consider that in the course of this century the percentage of humans who "exhibit the behaviors of reading and writing" will leap from ten to ninety percent.

Recognizing this delicate balance between the permanent and the plastic in human nature pays personal dividends as well. Throughout *The Tangled Wing* Konner uses anecdotes about his daughter's development to illuminate concepts in behavioral science; in a felicitous turnaround, his knowledge of human behavior

sometimes helps clarify his role as a father. As we talk, Susanna sails into the room, a Big Bird decal clutched in her hands and a request for help on the tip of her tongue. Konner bargains for a moment, escorts his daughter to her bedroom, and returns a few minutes later. "In some ways," he says with a laugh, "I'm in as much of a quandary as any other parent. That is, very ignorant about the consequences of my actions. On the other hand, I think I can set some limits on what's really possible. I know, for instance, that not all of what Susanna and Adam will become will be determined by what Marjorie and I do. A lot of what they'll be like is what they brought into the world as their biological inheritance. And I might be more tolerant of their individual quirks because I don't think that everything about them can be changed. I have great respect for my children's individuality—they're very different. I also have a great respect for the developmental plan that they're advancing along. I try to work within that framework to help them grow up. That's a phrase I much prefer to 'raising' them."

As we watch Susanna and Adam at play, a ticklish question arises. Are these kids any more than flesh-and-blood puppets, pulled hither-and-thither by strands of DNA, buffeted by high-velocity environmental winds? Konner subtitles his book, *Biological Constraints on the Human Spirit*; at times these forces seem to be lacing humanity into an organic strait jacket, crushing our sense of free will. Konner smiles when I ask him about this. "Irrespective of how many determinants we invoke, we still enjoy our subjective sense of freedom of choice. And it's not even as pessimistic as that. No one can predict with any degree of assurance what I'm going to do in the next five minutes."

"But isn't this," I ask, "only due to the embryonic state of behavioral biology?"

"You don't have to be a scientist to guess that I'll sit here for a few more minutes talking to you about my book. But that doesn't mean that I won't get up

MARJORIE SHOSTAK

With three-year-old Susanna in the Adirondack woods. In writing The Tangled Wing, *Konner found himself using anecdotes about his daughter's development to illuminate behavioral-science concepts.*

and stand on my head. The chances are that I won't. But that doesn't impinge upon my personal sense of freedom. I still feel that I can stand on my head if I wish."

Sadly, he didn't.

Some will applaud Konner's ideas, while others will listen with a grin or a grimace. But few will fault the eloquence of his delivery. *The Tangled Wing* joins the works of Loren Eiseley, Stephen Jay Gould, and a handful of other scientists on that elite shelf reserved for books that package their tricky technical messages in brightly ribboned prose. And Konner attempts even more. "I've read very few popular science writers," he says, "and I don't think I'm very influenced by them. They write in an accessible, entertaining way, but they're not trying to do what I'm trying to do. I want to put myself on the line—to express my sense of concern in a way that shows it cost me a lot to arrive at my present understanding." In this he surely succeeds; some of the most charming and challenging sections of *The Tangled Wing* come when he quits the laboratory to recount an episode from his family life, or when he condemns in the harshest terms those attitudes he finds dangerous or dumb or derelict.

Konner's combative stance reemerges in his comments on the relationship of science to art. Vladimir Nabokov, another Harvard scientist and writer, considered these activities to be Siamese twins, stating that "in high art and pure science detail is everything." But to Konner—a published poet—the two undertakings share next to nothing. "I try to keep them as separate as possible. The sense of wonder behind both is similar, I suppose, but the rest of the process is really quite different. I've read books that attempt to show their resemblance, but personally I find the differences much more compelling."

Despite this disclaimer, Konner's rigorously scientific text displays both the refined, connective beauty of lyricism and the sonorous, repetitive rhythms of rhetoric. When I point this out, he expresses misgivings. "My book may well be *too* lyrical. I hope it doesn't obscure the fact that there's a lot of information there. Many people resent the intrusion of a literary style into scientific writings." He mentions Emerson, whom he considers to be a far greater influence on his writings than other scientist-authors. "I heard Stanley Cavell give a superb talk on Emerson a few months ago, during the centennial of Emerson's death. Practically no one showed up for the lecture—and it was held in Emerson Hall. I approached Cavell afterwards and said, 'What do you think of the idea that Emerson is neglected because he's such a good writer? When you're reading an argument, you don't want to be distracted from the logic by emotions that arise from purely stylistic efforts.' Cavell insisted to me that Emerson's thought, his logic, is really *in* his style—that it's all bound together. I wasn't completely convinced. And I'm a little worried about a similar problem with my own writing." Konner pauses for a moment and then adds, "I don't mean to compare myself to Emerson. But he did say, 'Hitch your wagon to a star,' so I guess that gives me the right to be influenced by him."

Konner's fears seem groundless. The power of his prose is what flags his argument and brings it to our attention. His graceful style allows those of us who aren't professional scientists to link his message to our personal lives, to take hormones and neurons and chromosomes—things as invisible to our common-sense eyes as angels or ghosts—and bring them into focus. It's the skilled application of metaphor to medicine and simile to science that lets us feel, if only in Konner's subjective sense, that the human spirit still exists. He sums it up in one of the most lyrical passages of *The Tangled Wing*: "At the conclusion of all our studies we must try once again to experience the human soul as soul, and not just as a buzz of electricity; the human will as will, and not just a surge of hormones; the human heart not as a fibrous, sticky pump, but as the metaphoric organ of understanding." □

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The Konner style

from The Tangled Wing

Now that the discussion of heredity versus environment has transcended the "versus," passing beyond the question, Which? and the only slightly less useless question, How much? to the mature question, How?, we must prepare ourselves to face the fact that this last is not one question at all, but thousands.

Anatomy may not be destiny, but it is all we bring into this world and all we can take away with us. . . .

. . . we were designed by evolution to pursue targets of opportunity—to recognize our "id cathexes," our instinctual wishes of the soul, for what they were: dangerous and impossible of attainment ninety-nine times out of a hundred, put perhaps do-able once in a blue moon. And what can we expect to see happen when they become do-able ten or twenty or thirty times in a hundred? Exactly what we see now: the most brilliant florescence of narcissism since the time of imperial Rome.

By substituting privileges, entitlement, and things for love and the logic of human decency, by encouraging children to want more, by giving them whatever they want, by leading them to believe that they are superior and that there is no end to what they deserve, we . . . leave them languishing, eternally, like Ciacco, in the rain: a vividly Dantean fate in which the very source of life's plenty becomes an instrument of torture without end.

What we must hope for . . . is some sort of recognition that the grieving is part of what makes life precious, that we would not love life nearly so well without it. We should be less angry at it. We could try, at least, to stop taking it out on each other. Perhaps we should get together sometime and shout turbulent praises at the sun.