

Blues for Deep Blue

“Chess Is Too Easy” by Selmer Bringsjord, in *Technology Review* (Mar.–Apr., 1998), Massachusetts Institute of Technology, Bldg. W59, Cambridge, Mass. 02139.

When IBM’s Deep Blue bested world chess champion Gary Kasparov last year, some scientists hailed the victory as a landmark on the way to creation of a machine with intelligence equal to the human sort. Bringsjord, who teaches logic and artificial intelligence (AI) at Rensselaer Polytechnic Institute, argues that while computers may regularly checkmate human grand masters one day, they will never achieve intellectual parity with their creators.

Deep Blue’s triumph was a victory for proponents of so-called strong AI, who believe that all human thought can be broken down into a series of mathematical operations. If that sounds impossible, so, until recently, did formidable chess-playing computers—at least to some experts. In his 1992 book *What Computers Still Can’t Do*, Hubert Dreyfus, a philosophy professor at the University of California, Berkeley, said that such machines would forever remain science fiction. Yet chess, Bringsjord points out, theoretically *can* be reduced to a series of mathematical operations. The true test of computer intelligence, he argues, lies in something far more elusive: the ability to create.

A genuinely intelligent computer, for example, would be able to write fiction that is

rich in language, plot, and characterization. For the last seven years, Bringsjord has been working to build “a formidable artificial author of short short stories.” The latest result, he says, is a machine named Brutus.I, which can compose very short stories, provided they “are based on the notion of betrayal (as well as self-deception, evil, and to some extent voyeurism).” This feat was made possible because Bringsjord and a colleague were able to devise a formal mathematical definition of betrayal and implant it in the machine. But Brutus.I gets writer’s block when it comes to other great literary themes, such as revenge and unrequited love.

Bringsjord’s 10-year quest to construct a “silicon Hemingway” has three years left, he notes, but it already “seems pretty clear that computers will never best human storytellers in even a short short story competition.” For a machine to tell a “truly compelling story,” he points out, it would have to understand the characters’ “inner lives”—and that would require not just swift calculation à la Deep Blue but the ability “to think experientially,” mixing memory and perception as an artist does. The chess champs of the future may have reason to worry, but John Updike and his successors do not.

The Spices of Life

“Antimicrobial Functions of Spices: Why Some Like It Hot” by Jennifer Billing and Paul W. Sherman, in *The Quarterly Review of Biology* (Mar. 1998), 110 Life Sciences Library, State Univ. of New York, Stony Brook, N.Y. 11794–5275.

Folk wisdom has it that people in hot climates favor “hot” food because pungent spices mask the taste of food that’s past its prime. In fact, the spices have a far more sophisticated function: killing or inhibiting bacteria and other microorganisms that can spoil food and threaten human health.

Billing and Sherman, a graduate student and a professor, respectively, in Cornell University’s Section of Neurobiology and Behavior, believe that the taste for spices is an evolutionary adaptation. They looked at how often 43 spices were used in the meat-based cuisines of 36 countries. Ninety-three percent of the more than 4,500 recipes they found called for at least one

spice, and the average recipe called for about four. Onion (used in 65 percent of the recipes) and pepper (63 percent) were the most frequently used flavor enhancers, followed by garlic (only 35 percent), capsicums, lemon and lime juice, parsley, ginger, and bay leaf.

In 10 countries—Ethiopia, Kenya, Greece, India, Indonesia, Iran, Malaysia, Morocco, Nigeria, and Thailand—*every* meat-based recipe called for at least one spice. By contrast, in Finland and Norway, about one-third of the recipes called for no spices at all.

Not only did people living in hot climates, where the food is more likely to spoil, use

many spices, and use them often, they also reached for the spices with the strongest antibacterial properties more frequently than people in cooler areas did. According to information gathered by Billing and Sherman, four spices—garlic, onion, allspice, and oregano—act against every bacterium on which they were tested.

Interestingly, lemon and lime juice and pepper, though among the most frequently used spices, are relatively ineffective against bacteria. Why are those spices used? Because they enhance the antibacterial effects of

other spices, the researchers say.

The folk wisdom that spices are used to disguise the smell or taste of spoiled or contaminated foods is “seriously flawed,” the authors maintain. Thousands of people are killed every year, and millions made ill, by ingesting foodborne bacteria. Even undernourished individuals would likely be better off passing up tainted meat. Using spices to disguise the danger would be evolutionary folly. Indeed, say Billing and Sherman, that may be precisely why humans are so sensitive to the smells and tastes of decaying food.

ARTS & LETTERS

The Last Modernist

“The Forgotten Killer” by Vince Passaro, in *Harper’s Magazine* (Apr. 1998),
666 Broadway, New York, N.Y. 10012.

By the time William S. Burroughs died last year, at age 83, he “had been commercially morphed into the grand old man of American freakdom,” a neatly dressed Beat icon, and “a ‘cool’ face in a Nike ad,” writes Passaro, a contributing editor of *Harper’s Magazine*.

The “real” Burroughs was a heroin addict, a homosexual, a masterly writer of satire and modern affect—and a killer. In 1951 in Mexico City, attempting, on his own initiative, to shoot a glass off his wife’s head, he missed and fatally shot her. Burroughs also was “a theoretician of crime and resistance,” notes Passaro, “someone who strove to forge the unspeakable into an art form.” Unlike his friends, the Beat writers Allen Ginsberg and Jack Kerouac, who belonged to “a tradition of spiritual exuberance and preacherly optimism” that includes Emerson, Whitman, and Twain, Burroughs drew on darker influences, such as Poe, Crane, and Kafka. Out of “the idioms of hard-boiled pulp and the lyrics of surrealism,” Passaro says, Burroughs “created a strangely effective hybrid of European symbolism and American criminality.”

The universe that he created, in such works as *Naked Lunch* (1959) and the trilogy that followed in the early 1960s (*The Soft Machine*, *The Ticket That Exploded*, and *Nova Express*), Passaro writes, was one of “shifting time, transmogrifying characters, and ambiguous geography in which forces of evil—generally represented as heavily repetitive, viral forms of images and addictions—

are eternally and invisibly at war for Control.”

Queer, written in 1952 but not published until 1985, now seems most to define Burroughs, says Passaro. In it, he found “his true comic-psychotic voice and his time- and character-shredding narrative style.” Of his protagonist, Bill Lee, Burroughs writes: “The limitations of his desires were like the bars of a cage, like a chain and collar . . . and his eyes looked out through the invisible bars, watchful, alert, waiting for the keeper to forget the door, for the frayed collar, the loosened bar . . . suffering without despair and without consent.” In his portrayal of Lee’s caged desires, Burroughs captured not only the condition of the heroin addict and the situation of the homosexual at odds with society, Passaro asserts, but the plight of “the individual in late modernity.”

A satirist in the great tradition of Swift, Sterne, and Gogol, Burroughs was also “a Modernist with a capital M,” Passaro writes. Bill Lee’s “condition of endless, frustrated want and the image of the caged animal predict a general return to savagery that Burroughs and other modernists identified not with the loss of civilization but with an elaboration of civilization so multiple, so attenuated, so fundamentally dishonest, hypermarketed, and lethal that it renders the individual a stranger to his community and to himself. This is absolutely the modern condition, and Burroughs was its last and one of its best American representatives.”