

With even more derring-do, some scientists are seeking the biological basis of consciousness. Rejecting philosopher René Descartes' 17th-century dichotomy between mind and body, most of these scientists treat them as "different aspects of the same thing. In this view, consciousness emerges from the properties and organization of neurons in the brain," explains staff writer Greg Miller. Scientists have gleaned some insights from studying neurological patients whose injuries have limited their awareness

in certain ways, or robbed them of consciousness entirely. Ultimately, researchers are interested in why, from an evolutionary perspective, consciousness exists at all and whether other creatures possess it. The field, once considered a career killer, is now attracting many young scientists.

One prediction that emerges from the *Science* articles: Even if many of these questions are answered in the next 125 years, they will only be replaced by new and even more daunting ones.

Kyoto's Magnetic Force

"Climate Change Strategy: The Business Logic Behind Voluntary Greenhouse Gas Reductions"
by Andrew J. Hoffman, in *California Management Review* (Spring 2005), Univ. of California,
F501 Haas School of Business No. 1900, Berkeley, Calif. 94720-1900.

If there's one thing that business likes even less than government regulation, it's uncertainty about government regulation—and that's the condition business is now in, reports Hoffman, a professor of sustainable enterprise at the University of Michigan. The cause is the U.S. refusal to ratify the Kyoto treaty to control greenhouse-gas emissions, known formally as the Kyoto Protocol on Climate Change.

When, in late 2004, Russia became the 126th country to ratify the Kyoto treaty, it cleared the way for the pact to go into force

this past February. Multinational corporations that operate in signatory countries must comply with the new requirements. But even firms that operate only within the United States face the possibility that Congress in the future may impose similar regulations—and the reality is that some states already are doing so on their own.

The companies that are voluntarily making emission reductions aren't necessarily doing so out of concern for global warming or corporate social responsibility. Anticipat-

EXCERPT

The Computer Prescription

There is good evidence that if the United States were to invest in health information technology, it would get a substantial payoff. Estimates of savings range from 7.5 percent of health care costs to as high as 30 percent. The low numbers represent the reduction of obvious errors. These numbers may seem very large, but take medical errors as one example. A medical error costs, in 2003 dollars, about \$3,700, and early studies indicate that somewhere between 70 and 80 percent of those errors could be eliminated. Most of these are prescribing errors, where the patient ends up getting the wrong drug, the wrong dose of a drug, or the right drug given at the wrong time. Such errors lead to a variety of consequences, including further diagnostic evaluation of the patient and additional treatments. They can also result in serious complications, which require additional interventions, and even result in death. Unfortunately, \$3,700 is a lot of money—except in health care, where it buys just a few lab tests and maybe an imaging scan and a half-day in the hospital.

—David J. Brailer, National Health Information Technology Coordinator at the U.S. Department of Health and Human Services, in *Business Economics* (July 2005)

ing that a regulatory regime may be imposed on them, they prefer to make reductions now by their own choice and according to their own timetables.

In some cases, greenhouse-gas emissions can be cut in ways that also enhance efficiency and trim the costs of energy use or transportation. Thus, Cinergy, one of the nation's largest coal-fired electric utilities, aims to cut its carbon dioxide emissions by five percent by 2012; two-thirds of the \$21 million it plans to spend to accomplish that will go toward upgrading the efficiency of its plants.

Under the Kyoto treaty, an industrialized country that emits less than its quota of greenhouse gases can sell its unused allotment to an-

other industrialized country. This market-oriented approach is meant to reward top pollution reducers while allowing goals to be met with maximum economic efficiency. Some American-based companies with operations around the globe, such as Alcoa, the world's largest producer of aluminum, have instituted their own internal trading systems.

For companies, says Hoffman, reducing greenhouse-gas emissions can also be a way of minimizing financial risk, not only from damage caused by droughts, floods, and hurricanes resulting from climate change, but from the difficult-to-anticipate costs of complying with future mandatory regulations on greenhouse-gas emissions.

ARTS & LETTERS

Permanent Aliens

"Leaving the Center: The Modern Writer as Exile" by Morris Dickstein, in *The Common Review* (Summer 2005), 35 E. Wacker Dr., Chicago, Ill. 60601-2298.

There's a long tradition of writers living and working in exile. Usually they've been expelled for political offense, as Ovid was 2,000 years ago and Dante 1,300 years later. But the great modernist exiles—such as Henry James, T. S. Eliot, Ezra Pound, James Joyce, Franz Kafka, Samuel Beckett, and Vladimir Nabokov—embraced a different sort of separation, and they did so willingly. According to Dickstein, distinguished professor of English at the City University of New York Graduate Center, they were "exiles of the spirit rather than of the body politic," seeking a new contemporary idiom in which to express their alienation: "Exile is crucial to modern writing not simply because so many of its leading figures happened to leave home; they left home because they saw modern life itself as broken, dislocated, discontinuous with the past."

Dickstein calls Henry James the first spiritual expatriate, "at home everywhere and nowhere," and in his wake came Eliot and Pound and Henry Miller, all of whom left America to escape "a philistine hatred, fear, or incomprehension of art." Eliot and Pound shared James's absolute dedication to art and used the European past to create new traditions that were characteristically their own.

Joyce left Ireland behind—in life, though not in his work—and Kafka, a German-speaking Jew from Prague (in that identification there's already a wealth of displacement) made exile and homelessness even more central to his work than these themes had been for Joyce. Kafka "felt exiled from no place he could begin to imagine as his real home; the ultimate modernist, he felt exiled from life itself."

Kafka was an immense influence on the Dublin-born Beckett, another writer who believed he had no place to lose because he had none to begin with. Beckett eventually gave up his native English to free himself from its "dense network of literary associations" and from the towering figure of Joyce, whose secretary he had been in Paris in 1928, when he first left Ireland. The original language of the works for which he is perhaps best known, the plays *Waiting for Godot* and *Endgame*, was French. Its abstractness "lent a piercing clarity to his sense of isolation and hopelessness"; his characters speak in largely unfurnished worlds, where their spare words do little more than mark time against death.

But gloom is not the only mood of modernism. Kafka thought his work comic, as Miller, exhilarated by the Paris of the 1930s, thought his. There's rueful comedy in Beckett