

experiments. In a few cases, says Nash, the relief was greater than that provided by morphine.

Another “meta-analysis,” of 18 different studies, found that hypnosis, in conjunction with psychotherapy, helped treat anxiety, insomnia, hypertension, and obesity. But certain other conditions such as drug addiction and alcoholism “do not respond well” to hypnosis, says Nash.

Psychologists in the late 1950s developed a series of 12 tests to measure the depth of a subject’s hypnotic state. In one test, for instance, the subject is told that he is holding a very heavy ball. If his arm sags under the imaginary weight, he scores a point. The more tests the individual passes, the more responsive to hypnosis he is. On a scale of zero to 12, most people score between five and seven.

Contrary to what one might suppose, readily hypnotized persons aren’t necessarily prone to “gullibility, hysteria, psychopathology, trust, aggressiveness, imagination, or social compliance,” says Nash. Instead, they tend to be people who lose

themselves in reading, daydreaming, or listening to music.

Studies show that a person’s capacity to be hypnotized, like an IQ score, remains stable throughout adulthood. Identical twins are more likely to have similar hypnosis scores than same-sex fraternal twins, a finding that indicates a possible hereditary factor.

“Under hypnosis, subjects do not behave as passive automatons,” Nash observes. Rather, they actively respond to the hypnotist’s suggestions. Yet they typically perceive the sometimes dramatic changes in thought and behavior that they experience—including hallucinations, delusions, and memory loss—as “something that just happens” to them, without any effort on their part. “My hand became heavy and moved down by itself,” a subject might say.

The clinical use of hypnosis, Nash believes, may become a matter of course for some patients with certain conditions. Hypnosis is not yet a part of standard medicine, but it has “come a long way from the swinging pocket watch.”

The Darwinian Doctor

“Dr. Darwin’s Rx” by Beth Saulnier, in *Cornell Magazine* (Mar.–Apr. 2001), Cornell Alumni Federation, 55 Brown Rd., Ithaca, N.Y. 14850–1247.

There seems no end to the frontiers of medicine. The latest: “Darwinian medicine,” an emerging field that takes an evolutionary perspective on human health. Advocates, notes Saulnier, an associate editor of *Cornell Magazine*, look at the symptoms of illnesses or injuries that physicians traditionally treat, and ask whether some symptoms are not beneficial.

Consider fever, for instance. “A moderate fever, below about 103 degrees, actually can speed the healing process,” says Paul Sherman, an evolutionary biologist at Cornell University. “It makes the body’s environment less able to be invaded by the pathogen, and it enables its immune system to work faster.”

Morning sickness, in the Darwinian perspective, is another misunderstood protective response, writes Saulnier. Sherman and a stu-

dent, Sam Flaxman, found that women “who experience moderate morning sickness are less likely to miscarry.” Meat, eggs, and certain other foods are likely to contain chemicals or pathogens that could harm the developing fetus, so the mother’s nausea and vomiting protect the baby. Thus, women genetically disposed to morning sickness are “more likely to reproduce and pass on the trait.”

“Human biology is designed for Stone Age conditions,” wrote researchers Randolph Nesse and George Williams in a 1991 article that gave the nascent field of “Darwinian medicine” its name. That design lag can help explain information age maladies.

The craving for fat, for instance, once was “a distinct evolutionary advantage,” Saulnier says, since fat has more calories

than other types of food. But “in an age of abundance . . . that same craving can be a one-way ticket to obesity and heart disease.”

Modern conditions also have altered the worth of some evolutionary tradeoffs, Saulnier points out. The gene that causes sickle-cell anemia once gave people who had only one copy of the gene (rather than the deadly two copies) valuable protection against malaria. Similarly, the gene that causes Tay-Sachs disease warded off tuberculosis. But with the threats posed by

malaria and TB so much diminished today, the genes' benefits are minimal, while their dangers remain.

Only a few dozen American researchers are now at work in the field of Darwinian medicine, and the field is not well known. But that may change, says Saulnier. One big contribution Darwinian medicine could make lies in the allocation of medical resources. Why develop costly drugs to relieve morning sickness, for example, if it protects the baby?

ARTS & LETTERS

The Other Rockwell

“Rockwell Kent Rediscovered” by Stephen May, in *American Arts Quarterly* (Spring 2001), P.O. Box 1654, Cooper Station, New York, N.Y. 10276.

Painter, illustrator, printmaker, and author, Rockwell Kent (1882–1971) was recognized as a major American artist during the 1930s. But in subsequent decades his accomplishments as a painter were overshadowed, first by his commercial illustrations and political posters, then, during the Cold War, by controversy over his left-wing politics. Though not a member of the Communist Party, Kent was a staunch supporter of the Soviet Union (and a recipient of the 1967 Lenin Peace Prize).

Several recent exhibitions have revived interest in Kent's rugged landscape paintings (some of which he gave to the Soviet Union in 1960), as well as his striking graphic images. These works are “among the finest achievements” in 20th-century American art, asserts May, a writer based in Washington and Maine.

Born in 1882 in Tarrytown, New York, Kent showed an early aptitude for drawing and studied under William Merritt Chase, Robert Henri, and Abbott Thayer. In 1905, Henri, a leader of the “ashcan” school of painting, introduced Kent to the harsh beauty of Monhegan Island, off the coast of Maine. The young artist stayed there for sev-

eral years, eking out a living as a carpenter and lobsterman. “Inspired by the soaring cliffs, pounding waves, and forested landscape of Monhegan,” writes May, “Kent produced some of the most powerful paintings of his career. In *Toilers of the Sea* (1907), the hard life of men who make their living from the sea was underscored by the dramatic backdrop of the island's towering cliffs.”

Married in 1908 to Thayer's niece (the first of three wives), Kent moved to Newfoundland six years—and three children—later, settling in a small fishing village. But with World War I nearing, the outspoken stranger's “open admiration for German culture” led villagers to suspect that he was a German spy. In mid-1915, he was ordered to leave Newfoundland.

In subsequent years, he traveled to Alaska, Tierra del Fuego, and Greenland. He made his final home in the late 1920s on a dairy farm near the village of AuSable Forks, New York, with the Adirondack Mountains on the horizon. In each setting, says May, Kent produced “stark, evocative art. His crisp, modernist images, both paintings and graphic work, reflect his superb artistic gifts



Self-Portrait (*It's Me, O Lord*), 1934, by Rockwell Kent