

them, flaying them, or burying them alive. “Sacrifice was castigation, but also expiation, and it opened the way to a better hereafter,” says Graulich. Some victims, according to Spanish testimonies from 1520, rejoiced at the prospect of being immolated, and some even volunteered to die.

But sacrifice, writes Graulich, also afforded atonement to the Aztec sacrificer. By identifying with his victim, he died symbolically through him and was thus purified.

Sacrifice as an act of atonement is “not uncommon in the history of religions,” the author points out. Catholic missionaries in Mexico saw “striking similarities between Aztec religion and Christianity, including the salvation aspect.” While some specialists deny that the Aztecs had a “religion of salvation” comparable to—if “morally less exacting” than—Christianity or Islam, Graulich believes that they did, to some extent. The Aztecs, in his view, were either moving toward a full-fledged religion of salvation—or perhaps moving away from one, having lost some of its original meaning.



This mid-16th century depiction of Aztec human sacrifice was drawn by an Aztec at the request of an unknown Spanish cleric.

The Pragmatist's Faith

“‘Loyal to a Dream Country’: Republicanism and the Pragmatism of William James and Richard Rorty” by Daniel S. Malachuk, in *Journal of American Studies* (Apr. 2000), Cambridge Univ. Press, Edinburgh Building, Shaftesbury Rd., Cambridge, CB2 2RU, England.

When they turn to politics, pragmatists from William James to Richard Rorty consistently embrace republicanism, an outlook that, with its emphasis on polis-centered civic virtue, harks back to Jefferson, Machiavelli, and Aristotle. Is there any basis for this preference? Malachuk, a professor of humanities at Daniel Webster College in New Hampshire, suggests there is: the pragmatist's underlying “religious” faith that “the universe is . . . one of contingency rather than order.”

Most pragmatists, being antifoundationlists who claim that truths are made (“socially constructed”) rather than found, would reject the idea that their republicanism has any such foundation, notes Malachuk. Logically, they would admit, they could as easily adopt the vocabulary of Nazism as of republicanism. In the American context, they would contend,

“republicanism is simply the vocabulary that works best.”

But republicanism is, for pragmatists, more than just another vocabulary, Malachuk argues. Contemporary pragmatists, he says, have forgotten the stance taken by William James nearly a century ago. In *Pragmatism* (1906), the philosopher articulated a bedrock belief in what he termed the “unfinished” nature of the universe. Malachuk calls this outlook a “religious pragmatism,” resting on a faith in the world's contingency. “This vision of an unfinished universe,” Malachuk writes, “is sacred to pragmatists—the one foundational belief that they will not surrender.” And this vision, he says, accords with the essential republican value of civic action as the best way to deal with the contingency of history—which is why pragmatists invariably espouse republican ideas.

Acknowledging pragmatism's "religious" foundation would allow pragmatists to be more persuasive, Malachuk argues. Most could defend their republicanism only by asserting that "all beliefs are fallible though beliefs about democracy are *practically* less

so." But "religious pragmatists are engaged in a straightforward program of conversion," offering "a religion of humility before Contingency . . . [that] will save the republic." This approach, he suggests, has a solid pragmatic virtue: It is more likely to work.

SCIENCE, TECHNOLOGY & ENVIRONMENT

Crowd Control

"Coping with Crowding" by Frans B. M. de Waal, Filippo Aureli, and Peter G. Judge, in *Scientific American* (May 2000), 415 Madison Ave., New York, N.Y. 10017-1111.

Ever since a psychologist in the 1960s packed a bunch of rats into a room and observed the gruesome results, the idea that overcrowding promotes increased aggression and even violence in humans has become widespread. In recent decades, however, scientists have revised their view. People, after all, somehow navigate peacefully through crowded situations every day, jamming themselves into trains and elevators without ordinarily resorting to ratlike savagery. Despite their irritation and stress, people adjust and stay calm.

But why? Is it human intelligence or culture that prompts people to behave in this civilized fashion? No, say de Waal, a psychologist who directs the Living Links Center at the Yerkes Regional Primate Research Center in Atlanta, and his co-authors. Remaining cool in overcrowded situations is part of humans' evolutionary heritage.

Studying 122 rhesus monkeys at the Yerkes center and two other locations, the authors observed that overcrowded adult males became more friendly and no more aggressive, while females did get more aggressive but also made a "concerted effort" to improve their usually antagonistic relationships with non-kin.

Even more relevant was the behavior of 100 chimpanzees—the closest human relatives—studied at the Yerkes center. Chimps "are known for deceptive behavior," de Waal and his colleagues note, and in this case, put into cramped quarters, they seemed to hold their emotions in check. In contrast to the female rhesus monkeys, the chimps showed no increase in aggressive behavior. "We found that chimpanzees in the most crowded situations had a three times *lower* tendency to react" to neighboring animals' cries—which usually provoke hooting and charging displays—than chimps with more space did, the authors say. "Chimpanzees may be smart enough to suppress responses to external stimuli if those tend to get them into trouble."

Chimps actually became less aggressive when they were put into very crowded quarters for a brief time—which is "a daily experience in human society," de Waal and his colleagues note. On a crowded elevator, people tend to limit body movement, avoid eye contact, and refrain from talking loudly. It's not simply politeness, the authors suggest. It's a way that we "and other primates handle the risks of temporary closeness."

Who Was Kennewick Man?

"Battle of the Bones" by Robson Bonnicksen and Alan L. Schneider, in *The Sciences* (July–Aug. 2000), New York Academy of Sciences, 2 E. 63rd St., New York, N.Y. 10021.

Recent archaeological discoveries have opened up the startling possibility that modern-day Native Americans are not descended from the first Americans. Yet, thanks mainly to a decade-old federal law that sought—

with archaeologists' consent—to recognize tribes' rights to their ancestors' remains, scientists are being hindered in their efforts to learn more.

"Biological knowledge of the earliest