## **RELIGION & PHILOSOPHY**

ponder such civic questions long before they became the central problem of his dialogue *The Republic*. For at age 24, with ripe ambitions, he had nearly joined a corrupt political faction that would soon, when it came to

power, condemn his beloved teacher Socrates to death.

In *The Republic*'s mock discussion between Socrates, the rationalist Parmenides, and the Pythagorean Timaeus, Plato shows that a ruler leads the worst life, because politics requires the use of lies. The best and therefore happiest life is that of the philosopher, who lives in pursuit of knowledge and observance of truth. Yet, strangely, Plato also warns that "unless the philosophers rule...there is no rest from the ills for the cities ... nor, I think, for human kind."

This apparent contradiction has puzzled scholars. Is the *Republic*, as its 1968 translator Allan Bloom recently suggested, a black comedy in which the philosopher foolishly tries to create a good and just city (*kallipolis*) in a corrupt world? Harman, an assistant professor of political science at St. John Fisher College, argues instead that *The Republic* is a tragedy.

Plato's philosopher knows that he cannot create a *kallipolis*, says Harman. Yet he must try because "he cannot logically avoid it." As the least desirous of all men for political power, he alone may be trusted not to abuse it. He rules "for the city's sake," as though ruling were "a drudging chore." In making this tragic sacrifice, he honors his principles and may even reawaken the trust of a citizenry made "suspicious" by bad leaders. To judge by the laurels awarded to Plato by his student, Aristotle—

To judge by the laurels awarded to Plato by his student, Aristotle—who called him "a man whom it is blasphemy even to praise"—Plato would have ruled well. However, the noble Athenian did not believe in senseless sacrifice. In times when "the masses" were so "frenzied" that philosophers felt themselves "alone like a man among wild beasts," he thought it best to retreat. During Athens's despotic era, that is what Plato did.

## SCIENCE & TECHNOLOGY

The Salt Peril

"The Most-Craved Crystal: Why Humans Consume Salt in Such Excess" by Derek Denton, in *The Sciences* (Nov.-Dec. 1986), New York Academy of Sciences, 2 East 63rd St., New York, N.Y. 10021.

What do beef, pretzels, raw fish, and human flesh have in common? Salt.

Once a rather scarce delicacy, sodium chloride has become, in the United States and other countries, almost an abused substance. Why? Denton, a researcher at the University of Melbourne, Australia, argues that man has not learned to regulate his craving for this essential nutrient, now so abundant.

Human beings do need salt. Sodium is vital in maintaining body temperature, in regulating body chemistry, and in producing milk. Salt deprivation can lead to fatigue, nausea, dehydration, coma—and death.

The body speaks up when it needs sodium. Hence salt cravings. Expec-

tant mothers hunger for salty snacks. At times, the need for salt has had social impact. In India in 1930, Mahatma Gandhi led a "salt march" to protest British-imposed taxes on the mineral. Denton speculates that sodium deprivation has had a role in cannibalism. In tropical areas where salt is scarce, such as Borneo, Indonesia, and the Amazon, tribesmen learned to savor the saltiness of their compatriots. An official probing native murders in New Guinea early in this century was told by a Papuan: "We eat [humans] because they are like fish."

Important to the functioning of the adrenal glands, salt helps people cope with stress, e.g., urban life. Scientists note that areas where salt is plentiful tend to be populous; salt-poor regions are sparsely inhabited.

Then why worry about salt? The trouble, notes Denton, is that, in saltrich advanced societies, people consume too much of it. Salt saturation causes high blood pressure, which can lead to early heart attacks and strokes. In hunter-gatherer societies, the typical diet is 60 to 80 percent vegetarian, and includes only one to two grams of salt a day. But in the United States, the land of the hamburger and the potato chip, salt consumption can exceed 12 grams a day—"five to 10 times the amount required for normal growth and physical vigor."

## Evolutionary Game Theory

"Spider Fights as a Test of Evolutionary Game Theory" by Susan E. Riechert, in *American Scientist* (Nov.-Dec. 1986), 345 Whitney Ave., New Haven, Conn. 06511.

In nature, the goal is survival: only the strong, and the wise, endure.

It was naturalist Charles Darwin who, in 1858, first proposed the theory of natural selection, which holds that animals compete for resources and territory and that the fittest of them win. Roughly a century went by before a similar notion was developed specifically for man. This was called "game theory." Cambridge mathematician John von Neumann and economist Oskar Morgenstern developed a model describing how people make decisions—or the way rational men try to win contests.

For years, natural selection and game theory formed the basis for most explanations of animal behavior. However, notes Riechert, a zoologist at the University of Tennessee, another step was yet to come, a synthesis of these two ideas: evolutionary game theory. In 1973, evolutionary biologist John Maynard Smith and economist G. R. Price proposed this as an explanation of the dynamics of the animal kingdom. In contrast to the widely held "ethological" view of animals—which casts nonhuman beings as mere actors in rituals—the Smith-Price theory sees all creatures, and species, as game players, acting to protect their own interests.

Riechert finds support for evolutionary game theory in spiders.

Spiders cannot *think*, but they do act logically when defending their territory. Riechert has studied *Agelenopsis aperta*, or grass spiders, members of the funnel-web family found in the West. Acting as trip-wires, their nets signal the approach of insects, which *A. aperta* devours.

Observing A. aperta in two habitats—a New Mexican desert and an Arizona woodland—Riechert found them good game players. In battles