

## NEUROLOGY

### Cats and counting cells

Scientists have long speculated that there must be particular regions of the brain to respond to the more abstract properties of stimuli, such as number and shape. To date the speculation has remained theoretical, but Drs. Richard F. Thompson, Kathleen S. Mayers and Richard T. Robertson, psychobiologists at the University of California at Irvine, and Dr. Charlotte J. Patterson, a psychologist at Pomona College, report, in the April 10 *SCIENCE*, locating cells in the cerebral cortex of cats that apparently serve as counting cells.

A "number seven" cell, for example, when monitored with microelectrodes, was found to respond to the seventh stimulus in a series, regardless of the kind or intensity of the stimulus or the rate at which the stimuli were presented. The researchers have found other cells in anesthetized cats that seem to code the numbers two, five and six.

## PSYCHOLOGY

### Absent-minded revolutionaries

A survey conducted by Dr. Allen I. Teger, a psychologist at the University of Pennsylvania, suggests that nonactivist college students have mixed reactions to other students who occupy a building.

Dr. Teger organized a survey of Princeton University students shortly before and shortly after Princeton activists occupied a campus building to protest administration policies. About 40 percent of the undergraduates supported the radicals' demands before the building was seized, and only 30 percent afterwards. Strangely enough, though, the proportion of students who approved of building occupation as a tactic increased from 14 percent to 27 percent. This increase could not have been a reaction to police presence on campus, since the police were never called.

Perhaps, Dr. Teger told the Eastern Psychological Association convention in Atlantic City, some students, interested mainly in their own self-image, supported the radicals before the occupation as a means of appearing involved. After the occupation, "they simply forgot about" the radicals' basic aims; they merely supported the tactic of occupying a building, which was the chief focus of interest on campus at the moment.

## SOCIAL PSYCHOLOGY

### Radicals and power

Numerous psychologists and sociologists have become interested in studying the motivation of student and New Left activists. Drs. Frederick A. Wiecking of Berkeley Divinity School and David G. Winter of Wesleyan University reported an experiment at the annual Eastern Psychological Association convention indicating that such activists have a surprisingly low psychological need for power.

The stories that the activists invented in response to a series of photographs revealed a high need for achievement, the investigators said. But the activists scored lower on need for power than did a control group.

The researchers conclude that a high need for achievement was consistent with the activists' background, usually a permissive middle-class family in which the mother exerts pressure for high standards. The low power need was more puzzling. Perhaps, they suggest, these results mean that American society has become rigid, bureaucratic and centralized, so that young men with a high need for achievement perceive little expectancy or incentive for success at independently defined tasks. Thus they are trying to change and innovate in that society.

## POLITICAL PSYCHOLOGY

### Election and appointment

It sounds reasonable to suppose that elected leaders will act in accordance with the wishes of the group that elected them more often than will leaders who were merely appointed. Actually, Drs. Edwin P. Hollander, James W. Julian and Richard M. Sorrentino, psychologists at the State University of New York at Buffalo, reported at the Eastern Psychological Association meeting, the reverse is more often the case.

Subjects who believed they had been elected leaders of a group discussing urban problems were more inclined to overturn the group's decisions than were subjects who believed they had been appointed by the experimenters. The supposedly elected leaders were also more inclined to believe themselves competent and spent less time consulting with the group before reversing a decision.

In all cases, Drs. Hollander, Julian and Sorrentino found, a leader was more likely to deviate from his group the more strongly he felt he had been endorsed. Election confers a greater sense of legitimacy than appointment, they conclude, and the elected leader may show his higher status by assertions of influence.

## INTERNATIONAL RELATIONS

### War games and missiles

Part of the debate in the United States over the deployment of defensive missiles like the ABM has focused on the question whether possession of such weapons would help or hinder the possibilities for peaceful cooperation between nations.

Drs. Norman Berkowitz, Lance Hylander and Ray Bakaitis of Boston College have designed an experimental weapons game to answer the question.

During the game, the players have a choice of constructing imaginary factories, attack missiles, retaliation missiles or defense missiles. If the game ends without a missile attack having been launched, the players are rewarded according to the number of factories constructed. Otherwise they are rewarded depending on the success of their attacks.

Constructing defensive missiles does not seem to reduce significantly the number of attacks during a game, the researchers told the Eastern Psychological Association convention. It does, however, reduce the number of factories the players build.

Developing retaliatory missiles, they noted, gives the illusion of protection and does not encourage the players to cooperate with each other. But "Cooperation may be associated with mutual vulnerability."