

sticky problems of parallel evolution and instant adaptation (there being no evidence of free oxygen in comets or on Venus). And then there was the "fly ablation problem," not unlike the one faced by incoming astronauts.

All this left Velikovsky fuming. He said he'd only passed the fly idea along

from others and didn't necessarily subscribe to it himself. Later, in a conversation, Velikovsky vowed that if Sagan didn't mend his ways, "I will destroy him."

As for the problem of Venus's escape, it didn't explode away, Velikovsky said; it fissioned.

National Nutrition

Preliminary results of the first survey designed to assess the nutritional status of the entire U.S. population were released recently by the Public Health Service.* The survey, called HANES (health and nutrition examination survey), draws on a probability sample, made up by the Bureau of the Census, that is supposed to reflect the country's total population. (Its predecessor, the Ten-State Nutrition Survey conducted in 1968-1970, concentrated on low-income people.) HANES is being directed by the National Center for Health Statistics (NCHS) of the Health Resources Administration. Some 30,000 people in 65 separate "stands" are being tested by two large mobile examination units that have been roaming the country for the past 3 years. The people are being tested four ways: an individual's caloric and nutrient intake is estimated based on his recollection of what he ate in the previous 24 hours; blood and urine tests are administered to determine his vitamin and mineral content; he is given a physical examination to detect incipient malnutrition; and bone and body measurements are taken to discover abnormal growth patterns and obesity.

The preliminary report details the results from the first two tests: dietary intake and biochemical findings from a sample of 10,126 people.

The most striking finding, which confirms those of earlier, smaller surveys, is that the population suffers from widespread iron deficiency. According to the report, about 95 percent of all preschool children and women of childbearing age have iron intakes below the standards set by the Food and Nutrition Board of the National Academy of Sciences.

Some other findings:

- Most people have acceptable levels of calcium and vitamins A and C (B vitamins will be dealt with in a later report). Two exceptions are black women of childbearing age, whose calcium levels are below standard, and poor white women in the same age range, who are short on vitamin A.

- White preschool children and women are more deficient in vitamins A and C than black preschool children and women.

- Among those over 60, low-income whites get less vitamin C than low-income blacks. But the situation is reversed in the higher income levels. (This information may be misleading, because people are put in only two economic groups: poverty and nonpoverty).

- Despite the considerable evidence of iron deficiency as indicated by eating habits, only 10 percent of preschoolers scored low on iron when tested biochemically. On the other hand, blacks rated markedly lower than whites on tests for hemoglobin and hematocrit, which are also related to iron intake.

The main purpose of the study is to establish baseline data with which to compare the results of future surveys and supply information on which future government food stamp and school lunch policies can be founded.

Results of the physical examinations and measurements are due to come out next summer.—C.H.

* Single copies of *Preliminary Findings of the First Health and Nutrition Examination Survey, United States, 1971-1972* are available free from the Office of Information, National Center for Health Statistics, 5600 Fishers Lane, Rockville, Md. 20852.

So that Velikovsky would not be entirely alone in his own defense, the session's organizers had recruited one scientist to say something good about his ideas: Irving Michelson, of the Illinois Institute of Technology, chalked some equations on a board which he indicated lent some plausibility to Velikovsky's ideas that the earth could have briefly stopped rotating during one catastrophe. But when someone said one of Michelson's numbers was off by a factor of 10^{18} , he shrugged, said, "I'll let that go," and that was that.

By the end of the evening the old man's stamina had begun to wane. His speech thickened and his head bowed closer to the microphones at the podium as he reviewed again and again his record of predictions, his correspondence with Einstein, the volumes of ancient and modern references that—he insisted—bore him out, and the wrongs that had been committed against him.

One had to wonder what it was about the man that had inspired such outrage 24 years ago. Sociologist Storer suggested that, in part, it was the temper of the times; that Velikovsky was viewed as just one more threat to an intellectual community already sensitized by attacks on its loyalty. Then, too, his appeals to the lay public and his lack of conventional credentials, Storer said, violated the rules of the game and triggered defenses reserved for ordinary crackpots even though—as Mulholland put it—no one on the panel "believes Dr. Velikovsky is a crank in the usual sense, and some of us believe some of what he says is plausible."

Sagan said that some scientists were simply irked because New York literati were comparing Velikovsky to Einstein, Newton, Darwin, and Freud. Gingrich, for his part, mused later that "all of us can see our own faults mirrored in his approach to science . . . but in some ways it was an impressive performance."

What was accomplished? Velikovsky thought he had won new followers; Mulholland called it an act of contrition. Gingrich, too, said that he hoped in some way the event made up for the "shabby treatment" accorded Velikovsky in past years.

The organizers plan to base a book on the conference, and, while it may help heal an old wound, they will not be disappointed if it helps deflate the Velikovsky revival.—ROBERT GILLETTE