carcinomas are nearly nonexistent in subhuman primates (5), the carcinogenic potential of irritative compounds which cause gastric hyperplasia and dysplasia must be investigated with adequate controls and over long periods of time.

In regard to Jowett's criticism of the use of the word "random," we listed the highest concentration of PCB's found in food samples randomly taken by the Food and Drug Administration. We emphasize that the gastric lesions were produced by this compound at levels less than an order of magnitude greater than those which have occurred in samples of fish. We concur that the levels in a "general" diet would be lower for most of the population, and we presented the evidence for this conclusion by listing the lower levels found in other food products. We cannot adopt Jowett's acceptance of a safe level being "an order of magnitude less than the lowest level at which symptoms are known to occur" without consideration for the time factor. In our experiment, the animals developed the lesions within 3 months, whereas dietary contamination by the compound would ensure intake for indefinite lengths of time and conceivably for a lifetime. We again recognize the efforts of the Food and Drug Administration to remove contaminated samples which exceed 5 parts per million and urge the support of such actions.

> J. R. ALLEN D. H. NORBACK

Department of Pathology, Medical School, and Regional Primate Research Center, University of Wisconsin, Madison 53706

References

- 1. A. P. Stout, in Tumors of the Stomach, Atlas of Tumor Pathology Section VI, Fascicle 21 (Armed Forces Institutes of Pathology, Washington, D.C., 1953), pp. 16-17; R. C. Horn, Jr., in Pathology, W. A. D. Anderson, Ed. (Mosby, St. Louis, 1966), pp. 863-864.
 2. H. F. Smetana and T. C. Orihel, J. Parasit. 55 349 (1969)
- 2. H. F. Smetana 55, 349 (1969).
- 3. C. C. Lushbaugh, J. Nat. Cancer Inst. 7, 313 (1947); Cancer Res. 9, 385 (1949). C. Bonne and J. H. Sandground, Amer. J. Cancer 37, 173 (1939).
- 5. T. C. Ruch, Diseases of Laboratory Primates (Saunders, Philadelphia, 1959), pp. 545-548.
- J. R. Allen and L. A. Carstens, Lab. Anim. Care 15, 103 (1965).
- 7. R. Kimbrough, Arch. Pathol. 81, 343 (1966).

Reaction to Rhetoric

I would like to comment on Leo A. Orleans' article, "How the Chinese scientist survives" (8 Sept. 1972, p. 864). Whenever we are faced with messages

of unpalatable content, someone will provide us with a tranquilizer, saying not to overreact to rhetoric and that people did not mean what they said. To those who believe in this, I recommend the following reading list: (i) A. Hitler, Mein Kampf; (ii) G. A. Nasser, Speeches and Broadcasts; (iii) M. T. Cicero, Speeches against L. Sergius Catilina; and (iv) Demosthenes, The Philippika.

The fact that people do not achieve their previously stated programs and goals does not necessarily prove that they did not mean them.

F. P. BORNSTEIN

2001 North Oregon Street. El Paso, Texas 79902

Snapping Turtle Plea

Surely the most obvious conclusion to be drawn from the findings of Thomas H. Jukes and Richard Holmquist (11 Aug. 1972, p. 530) is that the time has come for a taxonomy based on gross morphological traits to be replaced by one more securely rooted in biochemistry and genetics. One might almost, if one wished to be frivolous, imagine the snapping turtle pleading, in parody of St. Thomas of Celano:

> inter Aves locum praesta et a Boidis me sequestra.

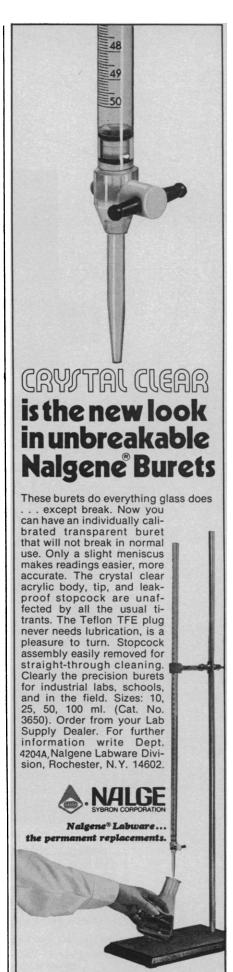
G. T. Nurse

Human Sero-Genetics Unit, South African Institute for Medical Research, Hospital Street, Johannesburg, South Africa

Our taxonomically oriented colleagues have reacted tepidly to Nurse's suggestion that a morphologically based taxonomy be replaced by one of biochemical derivation. Furthermore, a telephone call to the California State Board of Education was unproductive. However, a friendly Mock Turtle (Pseudochelonia dodgsonii) was quite receptive. "Once," he began, "I was a real turtle. . . ." Examination of his cytochrome c sequence revealed phenylalanine at position 36, aspartic acid at 50, glycine at 89, and asparagine at 103all identical with bovine—and no less than 12 hypervariable sites, showing evolutionary instability. When we told him this, he rudely gave us the bird. THOMAS H. JUKES

RICHARD HOLMQUIST

Space Sciences Laboratory, University of California, Berkeley 94720



Circle No. 84 on Readers' Service Card