

taught them in the 6th grade. When decimals were taught in the 6th grade, it took the students about a week to grasp the idea; and when they did they had a firm understanding of it. When, however, decimals are taught in the 4th grade, it takes the children about a month to learn them, and many do not retain what they learn.

A second example comes from science education. In some schools, experimentation is now taught at the elementary school level. But children are naturally inclined to the natural history stage of inquiry, not to experimentation. Children have a special talent for observing, classifying, and collecting. Instead of building on these talents and reinforcing the child's sense of curiosity and invention, we teach multivariate experimentation, which may only confuse and turn off a youngster who might well be a fine scientist later.

Psychology wasted 30 years trying to skip its natural history stage of inquiry and become an instant experimental science. We are repeating that mistake in our schools.

With all due respect to Skinner, the royal road to educational reform is not technology, but rather applied child development.

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### Yanomami Indians and Anthropological Ethics

William Booth's article of 3 March (Research News, p. 1138) about the exchange between Napoleon Chagnon and the Brazilian Anthropological Association (ABA) has two great merits. First, it calls attention outside Brazil to the critical situation of the Yanomami Indians, who now face an invasion of more than 40,000 gold miners and a drastic land reduction by the government. Second, it raises welcome questions about the social responsibility of anthropologists in such circumstances. We would like to add a few points.

Various anthropologists are quoted in Booth's article, including unquestionable authorities in North American academia, to the effect that the overwhelming economic and political forces that affect the destiny of native peoples dwarf the importance of anthropologists' writings. We can only agree. We do not agree, however, that such affirmation exempts anthropologists from responsibility toward the people about whom they write. We consider that anthropologists must always be extremely careful not to expose their hosts by presenting ethno-

graphic images that might be held against those hosts. Even more caution is called for when the people in question are severely threatened by powerful outside interests. This is precisely the caution that should have been exercised by Chagnon before he described the Yanomami as a violent society, hungry for law and police control to curb such violence (Articles, 26 Feb. 1988, p. 990). Government officials in Brazil may not read Chagnon's articles, but they do read the country's major newspapers (*O Globo*, *O Estado de S. Paulo*, *Folha de S. Paulo*) in which articles were published that closely reproduced Chagnon's points and depicted the Yanomami as killers. Here the government found a ready-made argument to justify the dismembering of Yanomami lands into 19 small "islands": being too violent, they have to be separated in order to be "civilized," as the Military Chief of Staff, General Bayna Denys, recently commented to journalists. If negative ethnographic images may not, in and of themselves, cause problems for the indigenous people, that does not mean they have no weight. At best, they add insult to injury; at worst, they contribute to public acceptance of violations, making them easier to perpetrate. Ethnographic writings have more political import for the people we study than certain anthropologists appear to believe. Let us remember, after all, that even an apparently innocent anthropological concept such as "local descent group," erroneously applied, has recently been shown to be a major obstacle for Australian Aborigines in demonstrating their land rights in court (1, p. 147).

We also find curious the pontifications by some of the anthropologists quoted in Booth's article about what happens in Brazil regarding the Yanomami, without their having been there to see for themselves, thus calling into question the appraisal made by the ABA (2).

As for Chagnon's statements quoted in Booth's article, we make the following comments. (i) The frustration of Brazilian anthropologists with the failure of the government to create a national park to protect Yanomami lands should be his frustration as well. But, more to the point, we must remember that it was in March 1988, 6 months before the government's decision to cut up Yanomami territory, that the ABA sent its complaint to the American Anthropological Association's Committee on Ethics about the implications of Chagnon's article for the political climate surrounding the Yanomami case in Brazil. This is not meant to single out Chagnon. What has been said about his approach toward the fate of the Yanomami can be said about that of

others in similar circumstances. (ii) We are glad to learn that Chagnon has at last taken an interest in the destiny of the Yanomami, among whom he has been working for 25 years. We hope his actions will go beyond building a computerized pool of Spanish family names to distribute among the Venezuelan Yanomami—the main concrete proposal that he has so far published (3)—or beyond making statements to the press about his defense of the Yanomami in answer to the ABA's criticisms (4).

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2. M. M. Carneiro da Cunha, *Anthropol. Newsl.* 30, 3 (1989).
3. N. Chagnon, J. Bortoli, M. I. Eguillor, *La Iglesia en Amazonas* 42-43, 75 (December 1988).
4. R. Friedman, *The Scientist* 2, 1 (3 October 1988).

### Notification to Readers

The paper "Expression of bovine leukemia virus genome is blocked by a nonimmunoglobulin protein in plasma from infected cattle" by P. Gupta and J. F. Ferrer [(Reports, 215, 405 (1982))] reported that the plasma of nine out of ten cattle infected with bovine leukemia virus (BLV) blocked the expression of the BLV genome in cultured lymphocytes and that this blocking activity was not present in the plasma of any of the 15 BLV-free cattle examined. Recent experiments in Dr. Ferrer's laboratory have shown blocking activity in the plasma of several BLV-free cattle. These experiments and the reexamination of some previous results have revealed inconsistencies in the blocking assay used in early studies. Thus, efforts are being made in Dr. Ferrer's laboratory to develop a reliable and quantitative assay which will be used to more critically study the distribution of the plasma blocking activity among BLV-infected and BLV-free cattle.

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