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## Letters

### Old teeth and ancestors

In "The Ancestor-Dubbing Debate" (SN: 7/2/83, p. 10), I made clear that many features which D. Johanson, T. D. White and their colleagues have claimed as distinguishing the Hadar and Laetoli fossils do not in fact differentiate them from *Australopithecus africanus* of southern Africa. I mentioned as an example the size of the upper central incisor teeth. T. D. White, in a simultaneously published comment, has joined issue on this, claiming that "the diagnostic feature of *A. afarensis* is an incisor that is larger than *A. africanus*'s relative to the back teeth." He is stressing here the well-known feature of *relative tooth size*, on which I have published a fair amount myself. However, he needs to be reminded what he and his colleagues earlier declared to be the diagnostic feature of the upper central incisor. It was not simply the *relative size*, as he now asserts, but *both the absolute and the relative size* of that tooth!

Thus, in the published "diagnosis" of their

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Cover: In controlled studies at Southern California game preserves, elephants such as this one (leaning after a few drinks) demonstrated a fondness for alcoholic beverages, particularly under the stress of being restricted to only two acres of land for one month. The work has implications for human drinking behavior and is part of a large body of observations of animals' self-intoxications with drug-containing plants in the wild and in the laboratory. (Photo courtesy of Ronald K. Siegel)



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proposed new species, *A. afarensis*. Johanson, White and Coppens in 1978 used the words, "Upper central incisors relatively and absolutely large." Johanson and White repeated this claim in their 1982 article in the *AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY* (p. 383, column 2); further on, they stated, "Maxillary central incisors are very long" (with no reference to relative length). Clearly from the beginning they have seen these teeth as absolutely, as well as relatively large.

I was aware of this and my comment to SCIENCE NEWS covered both aspects of tooth size. In absolute terms, the average size of the upper central incisors of the Hadar-Laetoli hominids is actually somewhat *smaller* than the average for those of Sterkfontein. In relative terms, the ratios between the average sizes of the upper central incisors and the back teeth show virtually no difference — and certainly no statistically significant difference — between these East and South African forms of australopithecine....

An increasing number of colleagues are com-

ing to realize that the "afarensis" fossils can be comfortably accommodated in *A. africanus* and do *not* belong to a different species.

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### More dreams

The article on forgotten dreams ("Forgotten Dreams," SN: 9/17/83, p. 188) attributes to Crick and Mitchison the theory that "A system is needed ... to unlearn things that are unimportant." A similar proposal was made by Christopher R. Evans in "Dreams of Computers," *J. ROYAL SOC. OF ARTS* (Nov. 1974) and Evans and E.A. Newman (*NEW SCIENTIST* 24, 577-579). In brief they argue that a primary function of dreams is "garbage collection."

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NOVEMBER 5, 1983

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