As for the myriad of lower echelon administrative personnel, their cost should be reduced to no more than 10 percent of the operating budget. This could be done by the university's negotiating with the state and federal governments for some less demanding accounting system. Then we could do away with personnel departments, publicity bureaus, personnel evaluation forms, time cards—in fact most forms and more than three copies of anything.

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Aleut Life Expectancy

W. S. Laughlin's very interesting work with Soviet scientists on the ecology and archeology of the Aleutian peoples (15 Aug. 1975, p. 507) cites the population structure and processes of Aleut and Eskimo peoples as an expression of the ecological adaptation of the Aleuts. A closer look at the demographic data presented, however, raises some doubts about whether he has really established the theoretical points he makes.

Questions immediately arise when one notes that in Laughlin's figure 3, presenting life expectancy of males at age 15, 3 of the 12 columns of data are based on skeletons. Skeletons have an estimated age at death but obviously have no life expectancy, not simply because they are already dead but because life expectancy is a property of populations, not individuals. Three more columns are based on a census, a form of data from which one can derive life expectancy estimates only by making stringent and rather unlikely assumptions about the growth rate of the population and the constancy of past mortality (*1*). One column in figure 3, that labeled "Unalaska 1822," is noted in the text as being based on a population of 411 deaths from which a life table can readily be constructed. However, Laughlin gives no information about the size of the population from which these deaths were drawn and what proportion of all deaths during that period were recorded, no assurance that the extremely likely underrepresentation of infant deaths has been assessed or corrected, and no information on the crucial question of how the age of these people was estimated.

If the data in figure 3 represent the true expectation of life at age 15 for males, I wouldn't necessarily describe this as an "Aleut achievement of longevity." The model life table for all human populations which gives an expectation of life at age 15 for males of 35 years (comparable to the Unalaska 1822 data) gives an expectation of life at birth of 30 years for women and 27.7 years for men, and nearly 45 percent of the babies born die before reaching the age of 15 (*2*). This is comparable to the results I have found for the hunting and gathering !Kung (*3*) people of the Kalahari desert and represents "a better management policy for natural resources" only in comparison to the Eskimos, who seem to have an expectation of life at birth well under 20 years—below the level of the "worst" model life table presented in the Coale-Demeny series (*2*).

When we go back to look at the three very different age distributions of Aleut and Eskimo populations shown in Laughlin's figure 2, more questions arise about whether the conclusions can be accepted. Cross-sectional age distributions, which provide valuable information for ecological studies about the "dependency" burden of youth and old age on adults, tell us much more about the growth rate of the population than about the longevity (*4*). Figure 2 cannot be an age distribution in percentages, as it is labeled, or it would be impossible to have 100 percent at age 0, 80 percent at age 10, and so forth; apparently it represents the percentage at each age and older. I suspect, although I can't be sure, that the data in segment A represent the survivorship curve (the l_x column) of the life table based on those 411 deaths discussed above. If the data in segments B and C are cumulative age distributions of living populations, they are not comparable to those in segment A. If, on the other hand, they too are survivorship curves, I would be surprised and impressed at the low level of survivorship. In the absence of clear labeling and a basis for age estimation, I am not inclined to believe it.

The demography of small populations of primitive people is a sufficiently new and difficult field that it will be necessary to spell out the basis for conclusions, including such items as the procedure of age estimation, the data base, and the exact analysis performed, for some time, until a standard methodology is established.

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Human Vaginal Odors

The study by Doty *et al.* (Reports, 26 Dec. 1975, p. 1316) on human vaginal odors claims not to support "the notion that such odors are particularly attractive to humans in an in vitro test situation," since odors studied during all phases of the menstrual cycle showed mean estimates on the unpleasant side of the neutral zero point. The authors imply that the absence of pleasantness in the "out-of-context test situation" may be the result of cultural or learning factors, or the underdevelopment of man's olfactory system, or his lack of a functioning vomeronasal organ.

Although this research has an elegant methodology, and contextual factors are appreciated, it is inadequately conceptualized, since the investigators appear to tacitly assume that pleasantness of these odors is independent of the *state* of the judges. It is commonly experienced that a state of sexual excitement profoundly alters perception; for example, a tactile input which is painful in a state of sexual nonarousal may be quite pleasurable when experienced during a state of sexual arousal. Since the observers making judgments in Doty *et al.*'s experiment were apparently not sexually aroused, the authors' conclusion referred to above is hardly justified. This well illustrates that psychological science, however sophisticated, often requires grounding in the phenomenology of ordinary experience.

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We reported that the general absence of pleasantness responses to human vaginal odors *in our particular out-of-context in vitro test situation* may be the result of cultural or learning factors or man's comparatively undeveloped olfactory system or his lack of a functioning vomeronasal organ. We did not suggest, as Globus and Cohen "appear to tacitly assume," that such odors in other contexts would be perceived similarly, or that the factors mentioned by Globus and Cohen were the only ones potentially involved in producing our effects. The *opinion* of Globus and Cohen that hedonic responses to vaginal odors change as a function of sexual arousal provides an interesting hypothesis for future research. Unfortunately, no experimental data exist on this point, making their opinion pure conjecture at the present time. Examples of changes in another, quite different, sensory modality during sexual arousal cannot be taken as strong support for the efficacy of such a notion.

A sampling of a number of individuals' *opinions* (including our own) regarding the perceived pleasantness of vaginal odors in heterosexual contexts suggests a wide variety of experiences, presumably depending upon factors such as the partners involved, their ages, sexual proclivities, histories, and a host of situational variables. The salience of odor memory (*1*) and the close relationship of the chemical senses to emotional processes suggest the possibility of various types of odor conditioning occurring in human sexual situations. Aversions to vaginal secretions can be produced quite easily in hamsters (a species whose vaginal secretions appear to be sexually attractive to conspecific males) by pairing ingestion of the secretion with gastrointestinal illness (*2*).

As we are the first to admit, a study such as ours has many inherent limitations, particularly in the eyes (or noses) of readers who wish to generalize its findings to coital situations. We hope that our experiment and the opinions of Globus and Cohen will entice scientists specifically interested in the perception of vaginal odors in coital situations to perform in vivo experiments on this topic. We hope such individuals will use a variety of participants so as not to bias their findings with too small a sample of the frequently misleading "phenomenology of ordinary experience."

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