Letters

Levantines and Londoners

While controversy in the study of modern human origins is not new, I often wonder how much of it is necessary. My respected European colleagues G. N. van Vark and A. Bilsborough (Letters, 23 Aug., p. 834) compare variations in the average D^2 distance for 19 cranial variables in four humans from the Middle Paleolithic of the Levant with those from a worldwide sample of modern males and females whose populational summary statistics were published by W. W. Howells (*1*). They conclude that the worldwide sample "is appreciably less diverse" than the sample from the four ancient Levantines. However, no set of 19 measurements from Howells is preserved for all four Levant crania, so van Vark and Bilsborough estimated the missing data, even though van Vark considers such statistical estimation techniques to be suspect (*2*, p. 68). Moreover, to have compared D^2 statistics, they must have assumed "that the hominid populations being compared [had] the same variance-covariance matrix as that computed for the recent population" (*3*, p. 336). This requirement is not met by the four individuals that were chosen according to unstated criteria from the sample of 13 Levant crania. Finally, is it valid to compare measurements from four isolated individuals, each probably from a different population, with measurements for 2216 individuals from 22 populations (*1*)? Within each population D^2 measurements tend to be low (*1*), which lowers the average. Despite these assumptions, estimations, and omissions, van Vark and Bilsborough conclude their letter with a stern lecture against "rejecting reality" and asserting unsupported statements.

But what *is* reality? I have been cited (News & Comment, 19 Apr., p. 376) as saying the Levantines were no more variable in their skeletal features than people are today in Detroit. So as not to belabor the Detroit comparison (I would like to be able to continue to enjoy the excellent Greek and Mexican dinners there), and again using Howells' D^2 measurements, let us compare the *actual ranges* of variation (not reported by Howells) for the complete Levant sample (n = 13) with the range for a sample (n = 388) of people from 17th- and 18th-century London (*4*). A direct comparison of ranges shows the Londoners' measurements to be more variable than those of the Levantines in all of the 14 possible comparisons. (The ranges are greater even if the largest and smallest Londoners' extremes in each comparison are discarded.) In two cases the London range is slightly more excessive, but in seven of the 14 comparisons this range is two or more times wider than the Levantine range. I have no wish to offend the citizens of London, but their ancestors provide a more than adequate measure by which to judge the diversity of the earlier Levantines. Thus, the *amount* of variation in measurements from the Middle Paleolithic people from the Levant appears to be less than that in a modern population (*5*).

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REFERENCES AND NOTES

1. W. W. Howells, *Pap. Peabody Mus. Archaeol. Ethnol. Harv. Univ.* **67** (1973).
2. G. N. van Vark, *Ossa* **1**, 63 (1974).
3. _____, in *Multivariate Statistical Methods in Physical Anthropology*, G. N. van Vark and W. W. Howells, Eds. (Reidel, Dordrecht, The Netherlands, 1984), pp. 323–349.
4. A convenient data set with measurement techniques similar to those used by Howells was published by B. Hooke [*Biometrika* **18**, 1 (1926)].
5. This is quite a different issue from that of the *pattern* of variation, which is not addressed here.

Funds for Young Investigators

Marcia Barinaga's article of 13 September examining the role of private foundations in funding biomedical research (News & Comment, p. 1200) highlights the fact that prestigious awards tend to be given to relatively few "promising" young investigators, but it does not point out that only applicants from a select group of institutions are eligible to compete in many of these award programs. For example, both the Pew and Searle Biomedical Scholars Programs solicit nominations from the top 85 or 100 institutions in the country, as ranked by the amount of funding from the National Institutes of Health. Program administrators justify this practice by stating that they do not have the staff to process a large number of applications.

Awards targeted for young investigators should be dependent on the training, research record, and merits of the individual. The hallmark of academic research is independence: a researcher's laboratory could be located at any university and, for the most part, it would not affect the progress or quality of that investigator's work. A number of young investigators who have trained at top universities and have built up impressive research records find themselves at less prestigious institutions because of the job market, spouses seeking similar positions, or other reasons. Funding agencies should overcome their "institutional bias" and allow all eligible applicants a fighting chance.

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The item in Briefings (25 Oct., p. 523) about the 1991 awards of the Packard Fellowships implies that the 20 fellowships awarded recently are the latest entry in faddish support for young investigators. Presumably the recipients of 60 fellowships awarded in previous years would disagree with the characterization, "latest." The briefing also expresses surprise that "in this age of affirmative action, only two of the 20 are women." In fact, 20 of the 80 current fellows are women. To imply, however, that any of the women who hold fellowships were selected because of affirmative action does a disservice to them and to the quality of their science.

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Citation and Self-Respect

I have been following recent observations on the *Science Citation Index* (News & Comment, 7 Dec. 1990; 4 Jan. 1991; Letters, 22 Mar. 1991) with interest. This mighty publication has a use that seems so far to have been overlooked—that of returning self-respect to women scientists shut out of regular jobs in science. Such women often continue to do research and publish it, but have their efforts ignored.

For example, as a part-time and highly rated teacher I have tried repeatedly over many years to obtain a full-time position as a professor, but in every case my research record has been downplayed; I was left with the impression that it was mediocre.

A friend suggested that I compare my citation record with those of various colleagues. To my astonishment, I found that mine was far better—in several cases about 50 times better—than those of professors to whom I had applied for a position.

I'm still turned down for full-time jobs, but now it doesn't hurt so much. I tell myself that it's not because my research is inferior, but because some professors don't like to deal with a person who has a better research record than they do, especially if she's a woman.

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