at presentation stage and, second, no statistician has yet to suggest to me a more practical method of solving the problem. I eagerly await the response of readers of this journal.

Two of the other discussants raise the issue of band independence and multiplying probabilities. This has attracted enormous interest in the United States. A lot of it, apparently, from eminent people who hitherto had little or no experience in the forensic field. It is good that such people should take an interest, but it is important that they should realize that they have entered a field that may have requirements, strictures and problems that are different from those that they are accustomed to working with. Frankly, I find the discussions of Hardy–Weinberg equilibrium, linkage disequilibrium and population substructuring confusing and often of no more than tangential interest. The important question for me is not "can I prove independence?" but "is there any evidence of dependence effects that would have any practical impact on operational casework?" The robustness

studies that I have carried out with colleagues have served to increase the confidence with which we carry out our casework procedures. Even when we have constructed artificially stratified simulated populations (Evett and Gill, 1991), we have failed to produce effects which would cause operational disquiet. We have carried out all $N(N-1)/2$ comparisons in a file of N Caucasians using a file of Afro-Caribbeans for estimating frequencies (Evett and Pinchin, 1991) and have shown that even under these conditions our operational procedures are robust. Our most recent work (Evett, Scranage, Pinchin and Buffery, 1991) has shown that, if there are any between-probe dependence effects in U.K. Caucasians, they are too small to have any practical effects in case work. We do not take these results as a source of complacency, nor do we claim that they have universal implications for all countries and racial groups. However, we do suggest that the fears that have been expressed may sometimes grow out of reasonable proportion.

Rejoinder

Donald A. Berry

I thank the dicussants for their clear and insightful comments. All discussants have important concerns and identify important problems for future research. I am pleased that all four seem to favor the approach I describe in preference to match/binning. The editors tried to find discussants who use match/binning and who would argue its merits, but unfortunately they were unsuccessful.

While I have no major disagreements with the discussants, I will respond to some of the points they raise.

RESPONSE TO LANGE

Lange correctly points out that I did not dwell on departures from the independence assumptions. In Berry, Evett and Pinchin (1991), we extend the results of the current paper to the bivariate setting of pairs of bands on a single-locus probe. The approach does not assume independence of the two bands. The second "key independence assumption" is more difficult to relax since going to higher

dimensions has calculational and sample size implications. Unpublished results of Evett and his colleagues (see Evett's discussion) indicate that independence is not a concern for the probes used in the UK Home Office Forensic Science Service. However, *measurement errors* across probes are highly correlated; research to account for such "band shifting" across probes is ongoing.

Lange likes the name "identity index" for R. I like it too. Actually, while I will continue to use both, neither "Bayes factor" nor "likelihood ratio" is ideal. The former carries a bit more philosophical baggage than R deserves. The latter is somewhat of a misnomer because R involves Bayesian averaging in both numerator and denominator.

Lange worries about the ability of judges and juries to adjust priors to posteriors. This worry is shared by Kaye, Evett and many others—including me! Judges and juries should be given (1) information they can understand, and (2) information that is correct. There can be no compromise regarding (2). If something we provide is correct but we know