

CORRESPONDENCE

New IQ test?

SIR — Mackintosh¹ finds my theory of intelligence “distinctly simple” but allows that the findings of the inspection-time (IT) studies are “possibly very important”. I largely agree with him on both counts. No one who has steeped himself in modern “cognitive psychology” — with its legions of black boxes, “executive programmes” and “subroutines”, resembling phrenology in all but the apparent infinity of the number of mental mechanisms that are now conjectured — can readily accept that intelligence is truly general or unitary. As Mackintosh writes, “there might be a variety of independent traits, which happened to correlate with one another in the general population.” Such a lofty invocation of chance “happenings” is commonly preferred by cognitivists to any systematic endeavour to explain why so many measures of mental ability correlate positively as they do.

Professor Mackintosh writes: “A correlation between IQ and inspection time does not mean that IQ is mental speed, nor even that speed is one (of several) causes of IQ.” I quite agree with him on the first point — if only for the reason that it is important to distinguish between the hypothesized “mental speed” on the one hand and its natural, developmental products (in conventional IQ) on the other. But Mackintosh offers no support for his suggestion that the causal relationship between speed and IQ “might even go in the reverse direction”. It is easy, and indeed very traditional to suggest that a higher IQ gives a person many advantages. But why should one of the largest of these advantages — larger than those for educational attainment, income or social prestige — be in judging briefly presented line-lengths? Again, if IQ were causal to IT, it should be noted that one of the studies which I have reported (by Brenda Hosie) found a strong correlation (-0.78) between IQ and IT in children who were only four years old. This hardly looks like a straightforward case of a high IQ providing numerous, small and cumulative advantages over a long period of development.

I do not claim to have “proved” that mental speed is psychologically and ontogenetically basic to IQ-differences. Indeed, even when it becomes possible to manipulate inspection times experimentally (by drugs, for example), mental speed differences may not be able to account for at least that 20 per cent of natural IQ variance that is widely agreed to be “environmental” in origin. However, I do suppose that scholars of cognitivist and environmentalist persuasions will need great imaginativeness to formulate explanations of the IQ-IT relationship that do not involve the concept of a unitary, underlying trait for which g is the time-honoured name and psychometric indicator, and for which “mental speed” will prove a convenient psychological short-hand.

There are numerous potential applications of the finding that IT (and, as Jensen and the Hendricksons find, “choice reaction time” and the “average evoked cortical potential”) can apparently serve to index intelligence. It should at last be possible to operationalize the

concept of intelligence in studies of young human infants and of other species; and this may lead to rapid advances and changes in the understanding of how intelligence is controlled and of how it develops. But Mackintosh doubts that any results obtained with different human racial groups could influence cherished convictions. I fail to understand why. My own view — outlined in a forthcoming paper — happens to be that conventional measures of fluid intelligence are not quite such pure measures of g as Jensen loyally maintains: this is principally because some of them are a little contaminated by $k:m$ (or “spatial abilities”). I, for one, would feel obliged to modify this view if IT indices gave Afro-Americans the same degree of disadvantage that they have on conventional measures of IQ. Whether “the critics of IQ” could ever be persuaded to change their views as a result of such studies is not the question. So long as the IQ-IT relationship proves generally replicable, new evidence about IT in non-WASP subjects should have appropriate effects on the scientific views of all reasonable people.

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1. Mackintosh, N.J. *Nature* 289, 529-530 (1981).
2. Brand, C.R. & Deary, in *Models of Intelligence* (ed. Eysenck, H.J.) (in preparation).

Darwin's survival

SIR — Your leading article “Darwin's death in South Kensington” (*Nature* 26 February, p.735) illustrates “the rot at the museum” by quoting a passage from our 1978 *Guide*. How odd, for that passage was drafted (by me) as a conscious paraphrase of the part of Chapter 13 in *The Origin of Species* in which Darwin discussed the relation between his theory and systematics. “Groups-within-groups classification”, which you take to be a “popular euphemism for cladism” and its attendant heresies, is not hidden propaganda but a contraction of Darwin's words — “the grand fact in natural history of the subordination of group under group.”

The “weasel words” which so incense you are “If the theory of evolution is true.” I have tried replacing them by your own criterion of truth: “If the theory of evolution is not an open question among serious biologists, the features used to classify species in groups . . . were acquired by the common ancestor of the group.” It does not read well.

Your readers may try the substitution in the equivalent passage from Darwin: “on the view that the natural system is founded on descent with modification . . . the characters which naturalists consider as showing true affinity between any two or more species, are those which have been inherited from a common parent.” And your readers can answer for themselves your question “what purpose except general confusion can be served by these weasel words?” The reader may also be able to judge whether the rot is to be found here or in Little Essex Street.

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SIR — As working biologists at the British Museum (Natural History) we were astonished to read your editorial “Darwin's death in South Kensington” (*Nature* 26 February, p.735). How is it that a journal such as yours that is devoted to science and its practice can advocate that theory be presented as fact? This is the stuff of prejudice, not science, and as scientists our basic concern is to keep an open mind on the unknowable. Surely it should not be otherwise?

You suggest that most of us would rather lose our right hands than begin a sentence with the phrase “If the theory of evolution is true . . .” Are we to take it that evolution is a fact, proven to the limits of scientific rigour? If that is the inference then we must disagree most strongly. We have no absolute proof of the theory of evolution. What we do have is overwhelming circumstantial evidence in favour of it and as yet no better alternative. But the theory of evolution would be abandoned tomorrow if a better theory appeared.

Charles Darwin died nearly a century ago and is honoured at South Kensington as a great man of science. It does neither him nor science any service to misrepresent the status of his work.

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Conservation sites

SIR — It can hardly be doubted that the number of species alive today is much smaller than the number of extinct species, nor that the future, unless it be preternaturally terminated, will see a proliferation of types of life exceeding all which have gone before. From this I conclude that extinction is the normal if not the necessary consummation of any species. If this is so, to attribute value to any species simply because it happens to co-exist with an observer, and still more, to attribute greater value to a species which, by its rarity, demonstrates its biological deficiency, reveals in that observer either or both a level of prejudice and lack of reason which gives cause to doubt his judgement on the matter of conservation even though he be a professional. Yet this is the essence of the action of the Nature Conservation Council in designating “sites of special scientific interest”. Were these sites to be set up with no loss of freedom to anyone, and more importantly, no cost to any individual, their institution might be treated as innocent caprice. The real consequence of the foolish advice given by the Nature Conservation Council is that their political masters impoverish the owners of the land involved, in the belief that they are preserving a national or even international treasure. Dr Goode of the

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