

There are two possible approaches to the extreme intellectual imbalances that we find in savants. One is to argue that the idea of the positive correlation is wrong, at any rate as far as musical and artistic skills, and the ability to make arithmetical calculations, are concerned. These skills are independent: they are not affected one way or the other by our other intellectual abilities. The second approach is to accept the positive correlation as a general proposition but to argue that it breaks down in savants. They are a special case because the special nature of their disability leads them to concentrate on a particular skill at the expense of virtually everything else.

There is a pronounced difference between these two approaches. According to

the first, the existence of savants tells us about the organization of intellectual skills in general. According to the second, we can only learn from them what kind of compensation is possible after early damage to the central nervous system. Treffert never makes a clear distinction between these two possibilities. That seems to me to be the reason why his book, which starts off so well with the description of these remarkable people, ends disappointingly with a failure to establish what savants tell us about the workings of their and our intellects. □

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How to win a Nobel prize

Steve Blinkhorn

Scientific Genius: A Psychology of Science. By Dean Keith Simonton. Cambridge University Press: 1989. Pp.229. £22.50, \$27.95.

Now calm down ladies and gentlemen. There is about as much connection between *Scientific Genius* and *Teach Yourself Nobel Prizewinning* as there is between a textbook on stereochemistry and *The Joy of Sex*. Here we have not so much an account of how to do it, as of what makes other people do it. And even then the answer appears to be that Other People Do It At Random.

Well, perhaps not quite. If you really want to make your mark today as a scientific genius, it helps to be a firstborn, displaced Jewish orphan brought up in a middle-class cultured household in the United States, and to have a moderately high IQ. But then your influence over these factors is more or less restricted to the possibility of murdering a parent or two, and even that won't help much at your age.

More to the point, Simonton sets out to dismantle heroic and romantic theories of genius and replace them with a theory of his own, the 'chance-configuration' theory. So the book is structured as a statement of the theory followed by an examination of the extent to which such evidence as can be adduced supports it as compared with the alternatives. No one — the author included — would claim that these comparisons are based on a rigorous methodology or on watertight data sets. But plenty of ideas are sketched out, and interesting (if tendentious) quantifications suggested. For example it seems that creative potential is related to age by the formula $x = 305e^{-0.004t}$. Also

included is a good, comprehensive bibliography which perhaps predictably contains 54 of Simonton's own publications.

Indeed, quite a lot of the value in the book is in its survey of the many, various and often almost mystical ideas that have been pressed into service to explain the phenomenon of genius. Although thorough, it is not a deep examination, and much is asked of the reader in terms either of previous knowledge in the field or of trust in the author's elliptical references to the literature. The book shows every sign of being precisely what it is, the product of a specialist's sabbatical freedom (and none the worse for that unless you are looking for a *good read*).

So what of the 'chance-configuration' theory of genius? I found myself suddenly coming over to the author's side on page 198 with the statement that "much of the current psychology of science has misplaced its emphasis on rational cognitive heuristics". Socrates had it wrong: man is merely an animal capable of occasional bouts of rationality, and maybe his rational moments are not his most creative. What Simonton is saying is that a theory of genius has the same general form as a theory of constellations or a theory of faces in the fire — which is to say no real theory at all. The more elements you have, the more complex the patterns you can see. And constellations have been known to guide space-ships. But whatever the processes of scientific creativity, genius is recognized after the event, and is an attribution of social recognition not a quality of thought.

All of which is a little sad for those who would like a do-it-yourself eminent-achievement-by-numbers kit. Because one is drawn to the conclusion, when all is said and done, that genius, like happiness, is destroyed in the pursuit thereof. □

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Psychology's Johnson

J.D. Mollon

Macmillan Dictionary of Psychology. By Stuart Sutherland. Macmillan, London/Crossroad-Continuum, 370 Lexington Avenue, New York, New York 10017: 1989. Pp.491. £29.95, \$49.50.

Among these unhappy mortals is the writer of dictionaries; whom mankind have considered, not as the pupil, but the slave of Science, the pioneer of literature, doomed only to remove rubbish and clear obstacles from the paths of Learning and Genius, who press forward to conquest and glory, without bestowing a smile on the humble drudge that facilitates their progress. Every other author may aspire to praise; the lexicographer can only hope to escape reproach, and even this negative recompense has yet been granted to a very few. [Samuel Johnson, *A Dictionary of the English Language*, 1755.]

PSYCHOLOGY has attracted its share of dictionary makers, quite a drove of them in the past two decades. But some have wanted industry, others understanding; and none of their compilations has been truly satisfactory. In Stuart Sutherland the discipline has now secured a worthy lexicographer. And there are not a few parallels between Johnson and Sutherland: they enjoy the same robust good sense; they share a somewhat choleric style; and both are men who have placed their private melancholia in the public domain.

Dr Johnson was blunt in deflecting criticism of his dictionary: "Ignorance madam, sheer ignorance" was his response when asked why he had defined *pastern* as the knee of a horse. And Sutherland follows, writing in his preface: "It is customary for dictionary writers to acknowledge that their work is likely to contain mistakes, and to ask readers to write pointing out any they encounter. I apologise for any errors that have crept into mine, but I beg the reader not to draw my attention to them . . .".

I will here respect Professor Sutherland's sensibility, but if the sales of this excellent dictionary prompt an early reprint, then I shall be pleased (for a professional fee) to supply to the publisher a list of more than 20 errors of substance. For the present, I must needs confine m'self to Preterition and shall not take our Lexicographer to task for confounding Ideal and Standard observers, for blurring the hard-won distinction between Intervening variables and Hypothetical constructs, for failing to differentiate Short-term memory and Short-term store, or for neglecting the asymmetry of the Stroop effect. I shall even pass over the misleading entry for Forced choice, an entry that fails completely to acknowledge Tanner and Swets'