

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

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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'

classical distinction between Yes-No and forced-choice experiments.

In fact, the number of flaws in the dictionary is tiny. Sutherland's especial talent lies in using plain language to give a succinct definition of complex concepts. His economy of words is often marvellous. And when usage is vague or when a term is empty of meaning, he does not hesitate to tell us.

One of the criteria for judging a dictionary has to be the comprehensiveness of its coverage. Sutherland's coverage is very good, though not perfect. He explicitly intended his book to be a dictionary for psychologists, in that he includes many terms from related disciplines. Statistics, neuro-anatomy, linguistics,

classical genetics, psychoanalysis and optometry are notably well covered; and he is fairly comprehensive on the more curious sexual practices. But these extensions may be at the expense of the core of our discipline. Thus Ovarian follicle and many other gynaecological terms are included, but the psychological reader will look in vain for AB error, Additive factors method, Bidwell effect, Cohort model, Liebmann effect, Memory-scanning task, Molyneaux's question, Ranschburg phenomenon, Repetition effect, Transitional probability and Wason task. And even within a category there are unevennesses. Thus Hampton Court maze is in, but Olton maze is not. The antique Holmgren test is in, but the Geller-Seifter test is missing. Tribadism, Frottage and no less than four variants of Cunnilinctio are in, but some old faithfuls, such as Cunniphagia, Ligotage and Irrumation are taboo.

Sutherland enlivens his dictionary with two jokes (although he uses them needlessly often). They are the two jokes used by Johnson, viz:

"social facilitation. The facilitation of behaviour by conspecifics . . . does not apply to certain complex tasks, like compiling dictionaries" (Sutherland). Compare: "dull . . . Not exhilarating; not delightful; as, to make dictionaries is dull work" (Johnson).

"psychoanalyst. A person who takes



The dictionary-maker depressed. Perhaps today he would be recognized as suffering from Aerophagia: "Swallowing air, a common neurotic habit that can produce discomfort and belching".

money from another on the pretence that it is for the other's good" (Sutherland). Compare: "patron . . . Commonly a wretch who supports with insolence, and is paid with flattery" (Johnson).

Sutherland uses the second of these jokes (*mutatis mutandis*) to convey his jaundiced view of cognitive scientists, social scientists, Gibsonians, Skinnerians and the sillier kinds of psychotherapist. And in general, it is a depressing view of psychological science that emerges from his dictionary. What becomes manifest is the lack of system, the categorical anarchy, with which we today approach the study of the mind. Psychologists have little to call their own except a ragbag of experimental paradigms and a heterogeneous collection of vague explanatory terms such as 'arousal' and 'drive'. For the rest, we depend on borrowings from other disciplines.

There is no better way of commending this book than to quote again from the choleric Doctor: "The words of this dictionary, as opposed to others, are more diligently collected, more accurately spelled, more faithfully explained, and more authentically ascertained" (*A Dictionary of the English Language*, preface to the eighth edition).

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Fighting talk

Roy Porter

AIDS and Its Metaphors. By Susan Sontag. Farrar, Straus & Giroux, New York/Allen Lane, The Penguin Press, London: 1989. Pp.95. \$14.95, £9.95.

DISEASE kills, but fear of disease can be almost as deadly. So argues the distinguished American intellectual, Susan Sontag. Ten years ago, in her *Illness as Metaphor*, she laid bare our society's dangerous habit of spinning fantasies around certain diseases (leprosy, plague, tuberculosis, and so on), thereby creating terror and guilt. In particular she denounced the folklore of cancer, the popular image of 'the big C' as untreatable, invariably fatal and, above all, psychogenic — the product of the so-called 'cancer personality', the self that eats itself away through frustration and repressed anger. Such myths made cancer unmentionable and created terrible stigma: through them therapy was hindered and suffering multiplied. We must abandon the phony meanings we attribute to sickness and the metaphors that sustain them, insisted Ms Sontag, and look disease squarely in the face.

Illness as Metaphor was a brave book (particularly as Ms Sontag was herself suffering from cancer), and it performed valuable service in combating prejudice. Her new book, entitled *AIDS and Its Metaphors*, must be read as a kind of extended epilogue to that work. She is still a campaigner against dangerous nonsense, but now her target is the mythology growing up around AIDS: new, deadly and still without effective therapies, AIDS is precisely the kind of disease that spawns pseudo-explanations. Popular moralists and the media have had a field day in labelling it nature's punishment for promiscuity, or God's revenge against gays and drug addicts. Phony aetiologies are invented which reinforce wider demonologies. It must all have started, rumour has it, as a CIA plot, or as one of the KGB's dirty tricks; or it is just another nasty thing coming out of the 'dark continent'.

Slipshod thinking such as this creates new cohorts of pariahs. Thanks to the tricks of language, being HIV-positive easily becomes the same thing as 'having AIDS', with all too serious consequences for people's jobs and lives. And, not least, the metaphor of disease as a deadly foe generates a miasma of panic. If infection is seen as the ultimate, insidious 'enemy', no door knob, no toilet seat, is safe. Because cold war and 'Star Wars' propaganda makes popular paranoia so pervasive, it is all too easy to treat AIDS sufferers as the enemy within. We must disabuse ourselves of such language-fuelled phobia. ▶