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, neuroanatomy 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, Ligottage 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 | NATURE · VOL 338 · 20 APRIL 1989



related disciplines. The dictionary-maker depressed. Perhaps today he would be recog-Statistics, neuronized 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 cholerick 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.

Ms Sontag's sentiments are admirable and are eloquently expressed. But her points have already been made hundreds of times over the past few years - the whole book evokes a wearying sense of déjà vu. And Ms Sontag fails to get off her intellectual high horse, and descend to nitty-gritty practical problems. If metaphor is duplicitous, if we must stop using 'military metaphors' such as 'fighting disease', how on Earth are medical educators to get their message across to the public? If (as she rightly emphasizes) fear and prejudice stigmatize sufferers, how are we to instil that salutary fear of infection which is necessary to encourage

Burden of proof

Beverly E. Griffin

AIDS: The HIV Myth. By Jad Adams. Macmillan, London/St Martin's Press, New York: 1989. Pp.244. £12.95, \$16.95.

"PESTILENCES have a way of recurring in the world; yet somehow we find it hard to believe in ones that crash down on our heads from the blue sky" (Albert Camus, The Plague). Camus was describing a fictional plague that originated from a dormant organism which arose unbidden in an Algerian town in the 1940s. Later, in an intriguing piece of prognostic fiction from the 1970s, an author called Russell Foreman produced The Ringway Virus which threatened the human race. (It was traced to a single outbreak in Australia and differed from all known viruses in its speed of spread and deadliness of action.) In the 1980s, the virus of the moment is undoubtedly HIV. The epidemic is AIDS. But is this a matter of cause and effect?

Jad Adams, a journalist with a claim to scientific respectability, has written a meticulously researched book whose title leaves little doubt about his answer to the question. The implication of the title is reinforced by inclusion of a foreword by Peter Duesberg, the most articulate of those who are sceptical that HIV is the cause of AIDS. Adams summarizes his conclusions thus: "my view, informed only by literature on the subject . . . is that HIV does not cause AIDS. Another pathogen . . . is the causative agent. . . . We will find out whether HIV causes AIDS but I predict this will happen a long way into the future and few will emerge from the historical record with much distinction".

Here I have jumped from the title page to the end of the book. What lies in between are a number of highly readable chapters on the origin of AIDS and the syndrome itself, the four Hs (haemophiliacs, heroin users, homosexuals, safer lifestyles? Surely there must be good metaphors as well as bad, true ones as well as false. After all, we have to use language, and what speech is not (as one might say) 'infected' with metaphors?

Like so many intellectuals, Ms Sontag seems so lost in the web of words that she is in danger of having nothing useful to say about (what she finds an offensive metaphor) conquering disease in the real world.

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Haitians) who have proved most susceptible to the causative agent (whatever it may be) and the fifth H (hookers) who might by now have been expected to join the statistics on AIDS, but have not. To my mind, the most thought-provoking chapter is that simply entitled "Syphilis". Here Adams lays the groundwork for his contention that an organism like the spirochaete Treponema pallidum should be seriously considered as a contributing factor to AIDS: symptoms of AIDS parallel those of syphilis; many patients are said to respond to antibiotic therapy (conventional viruses do not); and syphilis in some stages is immunosuppressive. "The great masquerader" might even exist in a filterable form, filtration being one of the prime pieces of evidence, in lieu of any animal model, for assuming AIDS is caused by a virus. If Adams wants support for his notions about syphilis he may find some in statements taken from the World Health Organization (see The Lancet, 18 February 1989, p.396) on sexually transmitted diseases as risk factors for HIV transmission.

What about HIV? Adams's response to the "myth" is a chapter called "HIV Challenged". He also presents the whole sorry story about the politics of its discovery, the people involved, the mistakes that occurred, the failure of Richard Nixon's war on cancer and so on. Scientists in general do not fare too well at Adams's hands, nor do grant-giving bodies. He quotes from Paul Feyerabend: "as opposed to its immediate predecessor, later twentieth-century science has given up all philosophical pretensions and has become a powerful business that shapes the mentality of its practitioners". Named scientists are the butt of Adams's invective as he draws attention to their abandonment of the scientific approach, acquisition of vested interests in the virus they champion and use of steam-roller tactics to silence any opposition. In "Virus Hunters" he reveals a Gallic bias. The AZT story, a medical trial that was neither anonymous nor completed but resulted in the release of a drug for AIDS treatment, is also discussed in a further chapter entitled "Finance".

Many will say that this book is totally flawed. I will say it has minor flaws. Adams concentrates too forcefully on the extremes -- HIV is or is not the cause of AIDS - and too little on the middle position wherein HIV is seen as a contributing factor to the disease(s) with other, as yet unidentified, cofactors also being required. (This is not fence-sitting there is a precedent for the involvement of a latent virus, the herpesvirus EBV in this case, together with cofactors in several human malignancies.) One could even hope that HIV is involved because, in the normal sense, it is a relatively non-infectious virus. Therefore changes in life-style and the use of safer blood products (for the five Hs and the potentially large 'at risk' African population) could result in a decline in the AIDS epidemic.

Adams also falls into the trap (following Duesberg) of assuming that the presence of HIV antibodies should in fact mean vaccination protection for the patient. Again, to quote from the EBV literature. increased viral antibody titres are used diagnostically to predict people at risk of developing EBV-associated diseases. Thus, not all viral antibodies can be deemed to be markers of protection. Finally, as one who works with young scientists and medical technicians, I regret, and in part strongly disagree with, Adams's cynical assessment of the 'scientific method'.

These, however, are minor points. Adams has written a highly provocative but important book on a huge medical problem. It deserves to be read (even by Nobel committees). There must be many 'HIV=AIDS agnostics' who will feel a great sense of relief if this book frees them from the pressures of silence imposed by the establishment (including journalists and journals). It will surely lead to a scientifically healthier society if the burden of proof for HIV as a deadly pathogen is returned to where it belongs - to those who maintain that HIV causes AIDS - and others are allowed to pursue alternative approaches in the battle for eradication of the disease.

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• AIDS: Profile of an Epidemic, recently published, is more specific in scope than the title implies, in that the contributors deal largely with AIDS in the Americas. The book has, however, been published with commendable speed; it contains a great deal of up-to-date information, much of it pertaining to South and Central America. Publisher is the Pan American Health Organization, whose publication centre is at 49 Sheridan Avenue, Albany, New York 12210. Price is \$30, plus shipping and handling. A Spanish edition is also available.