

## The New Scientist Interview

## John Bradbury Sykes

Astrophysicist, linguist, lexicographer  
and logodaedalist talked to

Ian Ridpath

Over the past few months more than one thousand people have hunched over long trestle tables at seven locations in Britain and filled letters into little white squares. They were competing for one of the 20 places in the final of the Cutty Sark/*Times* National Crossword Competition. The final will be held in London on 14 September. When the finalists sit down among them will be Dr John Bradbury Sykes, 51 years old, former astrophysicist and researcher at the Atomic Energy Research Establishment near Harwell in Oxfordshire, distinguished scientific translator, and now editor of both the *Concise* and the *Pocket Oxford Dictionaries*. In the specialised field of solving *The Times's* crossword he is, by common consent, the champion of champions—five times winner of the national crown, and never out of the top three in any year he has entered.

"There's no one I would back against him," says Edmund Akenhead, crossword editor of *The Times*. "If I can produce a crossword that would take him more than 10 minutes to solve I think I'd be doing very well."

In the world of astrophysics, J. B. Sykes is internationally famous for a rather different achievement a classic spoof paper entitled "On the imperturbability of elevator operators" by S. Candlestickmaker, a parody of the idiosyncratic style of the great Indian-born astrophysicist S. Chandrasekhar.

The contrast would seem particularly incongruous to his crossword opponents who regard him as aloof and distant, as perhaps would anyone who failed to appreciate his dry and sometimes cryptic sense of humour. Even close friends describe him as austere and difficult to know. "He seems to operate on a rather different plane," says a colleague.

He is not what Dr Johnson would have termed a "clubbable" man. The half gallons of whisky he has won as prizes in the crossword competition he has donated to charity because he does not drink, and the other prizes of holidays in desirable locales such as Monte Carlo he has given away to friends because he does not like travelling abroad.

At Harwell he was described as "a many-sided peg". Understandably, he finds it difficult to fit into any particular hole. He is a loner who is irresistibly attracted by any intellectual challenge. Were he a yachtsman one would imagine him facing the Atlantic single-handed. Were he a mountaineer one could visualise him making solo ascents of the most difficult rock faces. Yet underneath this asceticism is a depth of humanity that manifests itself in a welter of voluntary and social activities, ranging from work for the mentally handicapped and St John Ambulance Brigade to service on the parish council.

His strengths as a crossword solver—a wide-ranging knowledge and a meticulous attention to detail—also make him an outstanding lexicographer. As editor of the *Concise* and *Pocket Oxford Dictionaries* he is successor to a tradition that began with the famous duo of H. W. and F. G. Fowler, who worked from their home in Guernsey. His immediate predecessor was a certain E. McIntosh who carried out his lexicography in Exmouth. "It was possible for the Fowlers to edit a dictionary like that without ever coming to Oxford. And it was possible for McIntosh to work for the Oxford University Press for 31 years with nobody knowing what his first name was," says Sykes. (According to the Bodleian Library catalogue McIntosh's first name was Edward, but no one at OUP knew it at the time he died.)

*Times* have changed, and now the Oxford lexicographers work together in a tall, airy building faced with warm-coloured Cotswold stone near the city centre. One tradition has not died out: the name plates on each door mention initials, not first names. On the top floor is a door labelled J. B. Sykes, the name that appears on the hundreds of thousands of copies of the *Concise* and *Pocket Oxford Dictionaries* sold every year,



if ever their users stop to look at the title page. The house is an old one, and the window shutters in his office have long since been permanently pinned back, allowing a view out over passing cyclists onto St Giles's church. A bookcase along one wall is heavy with past editions of the *COD* and *POD*, as they are known in-house. A table is covered with open dictionaries and annotated proofs, evidence of a continual process of updating and revision, in response to the ever-changing language.

Wearing a pullover, loose-fitting grey trousers, and sandals, Sykes looks distinctly donnish. He is tall and rather gaunt, with a soft, pinkish skin like a kindly and wise schoolmaster, or maybe a clergyman. His voice is quiet and precise. He is a man of great equanimity, as imperturbable as the elevator operator of his own construct. "I've never seen him lose his temper, or get very excited about anything," says a friend of 25 years standing.

Behind bifocal spectacles he appears vague of countenance, but his mind is far from absent. He scavenges like a jackdaw for information, everything is mentally collated and filed. When asked a question, like a computer he will pause slightly, then deliver a calculated answer, complete with references if need be. As befits the image of an analytical mind, he is strong at bridge and chess. "His bridge was characteristic of the man—he treated the opposition as a machine and fell down on the psychological angle," says one partner.

I had expected to see a copy of the morning's *Times* neatly folded on his desk, the crossword complete. But no. The newspaper is delivered to his house, and he tackles the puzzle every evening before going to bed. "If you can solve it, it acts as a soporific. If not, it can be a bit agonising." One suspects there are few sleepless nights in the Sykes household.

He has added to the *COD* and *POD* a vitality, a new sense of clarity and present-day relevance, without sacrificing their accuracy and reliability—indeed, he has demonstrably increased it. He is constantly on the lookout for neologisms. "Chairperson" is now in the *COD*, and "word processor" seems certain to follow it. On a working copy of the *COD* he has made over 10 000 notes of words, their variants, and examples of their usage, although only a fraction of these will eventually be incorporated in future editions.

He does not moralise about language. "If a word is in common usage we should register it." Neither does he shirk



Americanisms. "We are just a group of dialect speakers over here." He is clearly entranced by words, as fascinated by their flexibility as he is frustrated by their imprecision. "Lexicography is less of an exact science than I had thought it was going to be," he admits.

This flair for the mechanics of language—"a very special talent", one colleague calls it—is all the more remarkable because he began his career as a mathematician and physicist. Sykes was born in Folkestone, Kent, the son of an aspiring borough treasurer. He had a mobile upbringing as his father moved regularly to gain promotion. Although he was interested in languages at school, he shone at maths and science, graduating in 1950 with a first in mathematics from Wadham College, Oxford, a city in and around which he has spent almost all his working life. "I think I have the kind of mind that likes the precision and deduction of the scientific method, rather than the imprecise and subjective approach that you find in the arts. Religion has never appealed to me at all."

Attracted by astrophysics, he progressed to Merton College and a DPhil on a study of the way in which radiation travels through the outer layers of stars. His original intention was to work with the great theorist Arthur Milne, but Milne died shortly before Sykes was due to start as his research student, so Sykes instead came under Harry Plaskett. It was during this time that he met Avril Hart, another research student, whom he married in 1955. The two now live in a house they had designed and built at Steventon, a village four miles south of Abingdon. They have one son, still at school, whose aptitude is for languages, not science.

Sykes's studies of the transfer of radiation through stars had relevance to the way in which neutrons are transported inside a reactor, so it was a natural step for him to continue his research at the Atomic Energy Research Establishment in nearby Harwell, an appointment that also had the desirable effect of avoiding National Service.

One of the high points in his career as a Harwell physicist was spending nine months at Yerkes Observatory in the United States with the leading specialist in his field, Subrahmanyan Chandrasekhar, author of the classic book *Radiative Transfer*. It was as a result of this collaboration that Sykes penned the now-famous Elevator Operator paper in playful parody of his

renowned mentor. The paper enjoyed considerable circulation in privately printed form, aided by Chandra himself who greatly appreciated the joke; it has now been reprinted in the book *A Random Walk in Science*.

Soon, though, Sykes's growing interest in languages began to make itself felt. When he joined Harwell in 1953, technical papers in foreign languages were sent to outside translators, but with the growth of scientific publishing it became necessary to have on the spot someone who combined ability in languages with technical know-how—a description which well suited Sykes who had by then taught himself Russian to add to the German he had learned at school.

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In 1958, he became Harwell's first full-time translator, remaining head of the translations department for the next 13 years. During this time his extraordinary facility for languages became fully apparent. In all, he taught himself to be proficient in the translation of 20 languages, including those as diverse as Hungarian and Japanese, though the great majority of the work involved Russian and German.

In addition to his official duties at Harwell, Sykes began freelance translations which have won him a top-flight international reputation. He is best known for his work on a classic series of books on theoretical physics by the Soviet physicists Lev Landau and Yevgeny Lifshitz. "Fluent, lucid, and correct," is how Jim Hall, librarian at Culham Laboratory, describes the Sykes translations of these texts, which are to be found in physics libraries throughout the world. Sykes is now working on the last of the 10-book series, all but the first of which he has translated.

Lexicography began as another sideline for the prolific Sykes while at Harwell, through an indirect route. In 1957 he co-wrote with Boris Davison a book on neutron transport theory which was published by Oxford University Press. As a result of that book he received copies of an OUP bulletin which included lists of words for which the Oxford lexicographers required examples of usages, to provide new quotations for inclusion in the *Supplement to the Oxford English Dictionary* which was then in preparation. Sykes submitted some contributions concerning scientific words, which went to join the two million slips of paper from various sources kept in the basement of the OUP dictionaries department. "Lexicographers are a race of people who are always going about with their eyes and ears open, and making little notes about things they come across. Eventually these find their way into dictionaries after suitable verification," he explained.

Subsequently he was invited to edit the entries for certain scientific words. Sykes had never considered becoming a lexicographer—indeed, until 1960 he never knew the OUP dictionaries department existed—but the nature of the work clearly suited his style. He was well placed to apply for the editorship of the *Concise Oxford Dictionary* when McIntosh died in 1970, and was appointed in 1971.

He set about his new task with characteristic zeal. The previous edition had been published in 1964, and was consequently already several years out of date. In the meantime the department had accumulated several drawers full of comments and suggestions from readers and members of the dictionary department, entered on the inevitable 6-inch by 4-inch slips of yellow paper which are the staple working medium of the Oxford lexicographers.

Sykes began to weed out obsolete words, introduce new ones, and to clarify definitions. One result of the Sykes style was the introduction of new typography which made entries easier to read in print. "Perhaps I was more of an iconoclast than I should have been if I had been brought up to regard the *COD* as a jewel of English lexicography." Each of the 40 000 entries, checked and amended as need be, was sent down to the printer on a six-by-four yellow slip, and the new edition of the *COD* duly appeared in 1976. The *COD* itself terms this Sykes edition "the most radical revision yet undertaken".

To his surprise, many people assume that he must know

every word in the *Concise Oxford Dictionary*, but even his considerable powers do not extend that far. "I might be able to recognise about 30 000 words, to the extent of knowing how they are pronounced and roughly what they mean," he agrees. "But it certainly doesn't extend to having a photographic recollection of the entire book." His vocabulary does, however, include most of the 19 000 entries of the *Pocket Oxford Dictionary*, which he turned to after completion of the *COD*. The *Sykes* edition of the *POD* first appeared in 1978.

As he progressed through these works, *Sykes* came to appreciate the intriguing set of practical problems that face lexicographers. First, there is the need for a definition to include only words that are themselves in the dictionary. But this can easily lead to circular definitions—for instance, "aid", "assist", and "help" can all be defined in terms of each other, which is to be avoided. Also words or phrases must not be entered in more than one place—in earlier editions of the *COD* the phrase "let sleeping dogs lie" appeared three times by oversight, under "sleep," "dogs", and "lie". It's a task that cries out for someone with *Sykes's* painstaking persistence with detail.

"What's meant by the expression 'It's a fair cop'?" asks *Sykes*. "Ask people if cottage pie is the same thing as shepherd's pie. You get different views. A lexicographer's job is to try to arrive at a balanced judgement. It's all part of the process of taking from the unlimited mass of material that constitutes the English language in use. If people think that something should be in that isn't in, we certainly will give it attention."

The Oxford dictionaries now have many competitors in the marketplace, but *Sykes* believes that the *COD*, in its field, remains unsurpassed. "It is based on a more thorough scrutiny of the language than the rival producers can manage. They have not got two million slips in the basement giving them

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actual evidence of the language being used. I'm very proud to have had the opportunity to continue the sequence of these world-famous dictionaries. They have presented many an intellectual problem which has given me satisfaction to solve."

*Sykes* does not add his voice to those decrying current standards of English. Indeed, he regards the continuing development of the language with an approving, almost paternal, interest.

"There's plenty of good English still being written and spoken. It's not a period of universal decline. Everything in the dictionary must originally have been someone's departure from what had been done before. Things that grossly interfere with efficiency of communication will simply not be maintained."

It seems natural to suppose that his work in lexicography is more than a passing bonus in solving *The Times* crossword, though he believes that a far greater advantage is his 30-odd years' experience of the puzzles, allied to his cool and unflustered approach. Certainly, his rivals regard him with a mixture of awe and apprehension. "Nobody faced with *Sykes* in full flow gives very much for his own chances," says Roy Dean, a surprise winner of the national final last year when *Sykes* was uncharacteristically off-form. (*Sykes* is reported to have looked unwell last year, but he himself makes no excuses.)

*Sykes* brings to his crossword solving the same seriousness and determination that mark everything he does. "He's much more professional than anybody else—absolutely single-minded and capable of intense concentration," says James Atkins, twice winner of the championship and a long-time rival of *Sykes* since the *Daily Express* first ran a national crossword competition in the 1950s.

*Sykes* took up crossword solving at the age of seven or eight, first with the junior crossword in the *Liverpool Echo* when at school in Wallasey, then subsequently with the *Manchester Guardian* crossword when the family moved to Rochdale, and finally *The Times*—when they went to live at Margate at the end of the war. He entered the Cutty Sark/*Times* competition in its second year of operation, 1971, and came third. Then followed a phenomenal run of four wins in succession, after which he stepped down again in 1978, and last year came second, somewhat to his chagrin. "I like winning," he says matter-of-factly. "I don't compete just for the sake of being in a competition."

There is a subtle psychology in crosswords. All puzzles have their own personality, perhaps akin to that of chess openings, some of which appeal more to certain players than others. For instance, *Sykes* prefers a crossword diagram that opens at the top left corner with 1 Across and 1 Down, as does *The Times* puzzle. If there is a way to fox *Sykes*, it is to present him with a puzzle that has a black square in the top left, and with clues that involve quotations or require a certain amount of guesswork, which jars with his cautious nature.

*Sykes* describes crossword solving in a way that makes it sound like a microcosm of the scientific method. "It's the satisfaction of completing a task from the clues that are given. It's a contest between the solver and the setter. The setter's aim is to baffle the solver; the solver's aim is to get round this by using the information provided, doing the easy clues first and in that way getting more information to help with the clues which at first sight seemed difficult. The calibre of the crosswords in *The Times* is about what I like; the clues are not so easy that I can solve them on sight, and they're not so difficult that it takes me hours."

He has no wish to set crosswords himself. "There are two different kinds of people—setters and solvers—and they rarely overlap. They're rather like chefs and gourmets; the chef is the man who spends all day constructing an elaborate confection which the gourmet—me—will demolish in 10 minutes." In attempting to sum up *Sykes*, the word "polymath" inevitably springs to mind (*po'lymath* n. Person of varied learning; great scholar. *COD*). Where next for him? He foresees remaining a lexicographer with the Oxford English dictionaries, though after two complete and unexpected changes of direction in his career, it seems rash to make any firm predictions. Whatever the future holds for J. B. *Sykes*, one thing is assured: he will do all he can to make an outstanding success of it. □

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