

## **GENERAL PRACTICE AND THE TWO CULTURES\***

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**J**AMES DUNDAS SIMPSON practised in Cambridge for as long as I can remember. Little did I think, over 30 years ago, when I was his patient, that I should one day have the honour to give an address in his memory. There may perhaps be a moral in this. One day my brother consulted him for a large boil on the face. A few days later when I saw him, the boil had disappeared. What had happened? "Oh, Dr Simpson gave me an injection of bacteriophage." This was a treatment I had never heard of before—nor indeed since—but it made an indelible impression, for here was a general practitioner who was not just coasting along but was keeping actively in touch with new developments. Twenty years were to elapse before I saw him again and it was clear that the earlier promise had more than fulfilled itself. He was one of that select band of ten general practitioners on the steering committee of the College, he was on the foundation council, he was president of the general practice section of the Royal Society of Medicine and he was the first provost of the East Anglia faculty. A well-rounded man, who interpreted his role as a general practitioner in the widest possible manner. Members of the College will have happy memories of the hospitality of Dr and Mrs Simpson at their home and at the Pitt Club and of the visit to the School of Veterinary Science, which gave us a valuable look into a neighbouring field. For the 'compleat' general practitioner such as James Simpson so undoubtably was, culture could only be a broad spectrum, covering the whole of human experience and not something artificially fragmented.

Which brings me to the subject of this discourse. The 'two cultures' is a phenomenon of the intellectual life, brought to its most clear expression in the intellectual life at university level. As Snow<sup>1</sup> has it "... the intellectual life of the whole of western society is increasingly being split into two polar groups". Snow was

\*Being the James Dundas Simpson Memorial Address 1964.

speaking in 1959. In May this year, the Archbishop of Canterbury<sup>2</sup> gave an address on this same cultural dichotomy. He said that "the great task in universities today was to recover something of the unity of knowledge, not in the sense of people knowing everything about everything, but of the different mental disciplines understanding more about one another". This meant that those who lived in the world of artistic and literary culture must take the trouble to understand what the mental processes of scientists really were, and learning from them and really understanding them. It meant that men of scientific discipline and habit should find out what were the mental processes of the men of arts and of an artistic mind. Dr Ramsey added "this is the really urgent and spiritual need of our time, and unless the matter is remedied, we are likely to get a kind of iron curtain right through western civilization".

I am no historian, but I should like to take you back three hundred years to the foundation of the Royal Society in 1660. At that time there was no obvious split in culture, and learned men of science properly and naturally turned to a Latin poet for their motto. A line from the first epistle of Horace reads:

*Nullius addictus jurare in verba magistri*

which translated reads 'Not bound to swear as any one master dictates'.<sup>3</sup> The accepted shortened form *Nullius in verba* could be rendered in the vernacular as 'I don't care who says so'. Horace penned these lines at a turning point in his life. As a young man he had fought on the wrong side in a revolution which ended at Philippi, 42 B.C., when Horace was 23. He badly needed a protector and patron and found what he wanted in Maecenas, to whom he dedicated his first ode. "Maecenas, sprung from royal stock, my bulwark and my glory dearly cherished".<sup>4</sup> (Horace dedicated his next four odes successively to the Emperor Augustus, to Virgil, to spring and to a flirt—there is a nice order in these things.) At the beginning of the epistles, the wheel has come full circle and he again addresses Maecenas, this time to make his excuses as he turns from lyrical poetry to philosophical speculation.

*Nullius in verba*—I think the Royal Society must have been looking over its shoulder, possibly at Galen and Harvey, possibly at Galileo, when it chose this phrase. Having delivered himself of this motto, Horace continues with a line which might have been written for the general practitioner:

*Quo me cunque rapit tempestas, deferor hospes*

'Wheresoever the tempest drives me, thither am I borne as a guest.'

The practitioner goes into practice, a castaway on an unknown shore. No one has prepared him and I think no one could have prepared him for the intricate human relationships and problem-

solving situations he is to find there, changing as they do from one practice to the next and from one year to another. He abides as a guest, uniquely privileged to see at first hand the patterns of his patients' lives and the patterns of their illnesses evolving before him. On the one hand he has a one in 20,000 sample of the population of Great Britain to study from that statistical angle; and on the other, he has something utterly unique, a group of people, who with the passage of time inevitably come to reflect something of his own personality. From the academic point of view, the general practitioner carries responsibility for undertaking the field work of medicine and to succeed he must have something of the Gilbert White in his make-up. Field work is never dull, it is full of surprises and every next observation may be something which is new and significant. We don't always find what we expect, but the important thing for us is to concentrate on the study of what we actually see before us in our practices. Lack of preconceived ideas and insatiable curiosity, which one finds in the best field naturalists, one also finds in the best practitioners. Mackenzie in his Burnley days, looking at his pulse-tracings and Pickles noting the course of infections at Aysgarth are typical of this. Mackenzie went to London to specialize and in due course revolutionized cardiology, but he took with him the knowledge that all he had done had come originally from patient and careful observations made in general practice. He had studied an unselected group of patients in their home environment and drawn his conclusions. So compelling was this experience, that there came a time in his career, when he felt it necessary to leave London and cardiology and to set up an institute at St Andrews and there to try to recapture the spirit of the observation of symptoms from which he had started out. The final court of appeal of both Mackenzie and Pickles is to their observations and if that happened to disagree with what was believed in the textbooks and in Harley Street, that could not be helped. It is the spirit of *nullius in verba*.

Turning to the present day, there are many practitioners who are applying in their own practices what has been learnt from the methods of Mackenzie and Pickles. You will be perfectly familiar with all of them . . . I need hardly mention Dr G. I. Watson on epidemics and his insistence on careful observation and careful description, Dr John Fry, who has been able to keep full details of influenza epidemics, while the rest of us have hardly known how to get round. I have never ceased to wonder at this. Dr Pinsent, who always seems to have more projects going on that I can keep track of, Dr Keith Hodgkin, whom many of us had the privilege of hearing at a recent Cambridge symposium and who has kept full records of all his patients since he first started as a medical student. Dr Scott, who organized the pernicious anaemia survey, and last but not least,

the remarkable collection of notifications of congenital abnormalities organized by the College and reported on by Dr Basil Slater. It has added a new dimension to our thinking in this field. So many cases have been notified, that meaningful statistics have been produced on the behaviour of individual abnormalities. There are many others who have added an individual quota to what, especially since the foundation of the College, has become a swelling stream of systematic and valuable observations from general practice. Inevitably, seeing this, we are bound to ask ourselves what the next step in the development of this process may be. I think that without any doubt the answer lies in the setting up of departments of general practice in universities in every major region of the country. This is a period of university foundation and expansion. New universities are arising and older ones are breaking out of their shells. Go to Manchester and you will see the black old university building standing among new constructions which are an earnest of more to come in a scheme which will evolve alongside a plan which anticipates the complete rebuilding of the near-by Manchester Royal Infirmary. Go to the comparatively new university of Southampton and again you will see new building on an impressive scale. All this expansion comes from a widely-felt need for the provision of more facilities for higher education, and demands new thinking on the nature and function of universities. The *Shorter Oxford English Dictionary* has it that a university is "the whole body of teachers and students pursuing at a particular place, the higher branches of learning". And indeed this is the ideal, though in practice not all universities can study all the higher branches of learning. A university is a place where the synapses can form between the representatives of the various fields of study. No matter what faculty a man belongs to, he can be in immediate and personal contact with representatives of all that is new and active in all the other faculties. At the older universities, this is done by a combination of departments and colleges, and comparable arrangements have been made elsewhere. On the one hand is a department devoted to a particular study and on the other, the colleges at which representatives of the various departments are brought into close physical approximation at high table and so forth. The question is, whether they are also brought into close mental approximation, and that is what Snow's<sup>5</sup> Rede lecture is about. "There seems to be no place where the cultures meet."

I believe that the two-culture situation is a reflection of weakness in the representation at the universities of subjects in the centre of the cultural continuum. These are the faculties which have or should have contacts with and understanding of the problems of all the Arts and all the Sciences, and these faculties are or should be, the faculties of theology, medicine and the law. This is where the weakness lies,

and where the cultural spectrum has been broken. These faculties have failed to maintain, in full measure, their true many-sidedness. To the science student, the Law appears as some rather remote arts subject which touches him not at all. Perhaps the recent formation of a department of criminal science at Cambridge will lead to new contacts and new developments in legal thinking. Theology has also come to occupy a position far removed from the science faculties and has drifted away from what might be thought of as its normal central position. The late Canon Raven<sup>6</sup> wrote in his book *Science, Medicine and Morals* "People of my age grew up in Europe and perhaps in America under a sort of convention: if the scientists did not press the fact that many of their ideas and convictions were in flat contradiction to Christian orthodoxy, and if on the other side Christians did not attempt to dictate to scientists what their researches should be and what their findings should disclose, then it could be agreed that science dealt with the things that were temporal and religion with the things that were eternal and like the East and West in Kipling's poem the two need never meet".

Koestler,<sup>7</sup> writing in the *Observer*, regards the Galileo incident as the beginning of the great divide in Western culture. Galileo was called to Rome by representatives of the Church, and there publicly humiliated. If theology is again to occupy any central cultural position, it is to this point that our footsteps must return. When we ask ourselves what religious purpose might have been served by the forced retraction of Galileo, we are bound to admit that questions about the physical behaviour of the solar system are devoid of any spiritual or religious content. Give Galileo the sun and the planets; the stars also if he needs them, religious purposes do not need to concern themselves with such things. His judges did not understand in the context of their own times the meaning of "Render unto Caesar, the things that are Caesar's". Every schoolboy knows about Galileo. Physicists had been put beyond the pale. History was to repeat itself. Not in physics, but in biology; not before the inquisition in Rome, but in the heart of protestant Victorian England. In Oxford, in 1860, Wilberforce was to do to biology and biologists, what had been done to physics and physicists in Rome in 1633 over two hundred years earlier. When Wilberforce showed himself to have so little insight into the spiritual needs of the situation that he replied to Darwin in an offensive manner, Huxley could indeed comment "The Lord hath delivered him into mine hands". (There seems to be some doubt as to what was actually said, as no verbatim account was kept. David Lack<sup>8</sup> in his book *Evolutionary Theory and Christian Belief*, inclines to give Wilberforce the benefit of the doubt, stating that rudeness seems out of keeping with his character and quotes Professor Farrar, who was present, as saying that the words

used were 'flippant and unscientific rather than insolent, vulgar or personal'. However this may be, the Bishop's contribution seems to have made a very unpleasant impression. Once again, there was a failure to 'render unto Caesar'. The Bible is neither a textbook of physics, nor is it a textbook of biology. It is the story of a spiritual journey, with the accretion of new books as spiritual experience developed. In this sense the Bible might even be regarded as evidence for evolution, that is, spiritual evolution. Take passages from the early Old Testament, the later Old Testament and the New Testament and the message is clear. Biblical dating is obscure and difficult, but I am prepared to believe that Moses preceded Jeremiah, and Jeremiah preceded St. Paul. I will read you three short passages. The first is Moses speaking of the conquest of Og, the king of Bashan. It concludes (Deut. ii. 6-7.)

6 And we utterly destroyed them, as we did unto Sihon king of Hesbon, utterly destroying the men, women, and children, of every city.

7 But all the cattle, and the spoil of the cities, we took for a prey to ourselves.

From Jeremiah comes a much less extroverted passage. In about the year 600 B.C. when Jeremiah was writing, Jerusalem was overhung by the power of Babylon, which was indeed to overwhelm it in the year 586 B.C. This passage taken from the parable of the girdle (Jeremiah xiii. 12-14.) calling the inhabitants of Jerusalem to order, has a different tone altogether. It opens quietly with a most remarkable poetical meiosis.

12 Therefore shalt thou speak unto them this word, Thus saith the LORD God of Israel, Every bottle shall be filled with wine: and they shall say unto thee, Do we not certainly know that every bottle shall be filled with wine?

13 Then shalt thou say unto them, Thus saith the LORD, Behold, I will fill all the inhabitants of this land, even the kings that sit upon David's throne, and the priests and the prophets, and all the inhabitants of Jerusalem, with drunkenness.

14 And I will dash them one against another, even the fathers and the sons together saith the Lord, I will not pity nor spare nor have mercy, but destroy them.

For a third passage illustrative of an evolution of spiritual values, I would quote from St Paul's epistle to the Corinthians. I. Cor. xiii. 1-2.

1 Though I speak with the tongues of men and of angels, and have not charity, I am become as sounding brass, or as a tinkling cymbal.

2 And though I have *the gift of prophecy*, and understand all mysteries, and all knowledge; and though I have all faith, so that I could remove mountains, and have not charity, I am nothing.

The change from those earlier passages is astonishing.

I have wandered far from medicine, where we have or should have a faculty occupying a central position in the university scene. Medicine has drifted towards the science side. From its requirements, a galaxy of sciences has arisen, so new and dazzling that an

outsider might be pardoned for imagining that medicine is itself a scientific subject. We, in general practice, know from our own everyday experience that this is only part of the story, that lost though we may be without science, we are equally lost if we fail to apply in our practice lessons derived from the non-scientific categories of human experience, and with this sentiment I am sure, those excellent medical teachers at Tannochbrae, Drs Cameron and Finlay would concur. Which brings me back to the role of general practice in the universities.

General practitioners usually look upon this question in terms of the value that general practice might derive from university representation. This is only one side of the coin. There is scarcely any organized branch of human activity which would not benefit from the kind of nourishment which it could obtain and only obtain from representation at a university; but that is not the question. We need to ask ourselves not only whether general practice would benefit, but to what degree it would benefit, whether the benefit would be marginal or of such a kind as to alter the whole atmosphere and future of this branch of medicine. At the same time we should not feel justified in asking for such departments unless we could assure ourselves that they could become focal points of important initiatives within the universities themselves. I have no doubt on either score.

Butterfield<sup>9</sup> on a similar theme in his book *The Universities and Education Today* says: "It is not easy to resist the argument that even those whose actual studies are not quite appropriate for a university will gain much from being immersed in university life. At this point, however, it is a very large camel that is pushing its way into the tent. . . ."

The general practitioner must indeed ask himself what we have to offer to the universities and to their medical faculties; for a university must be selective if its structure is not to become unwieldy and unworkable.

The Gillie report (p. 49, para 182) favours the establishment of departments of general practice at the universities and remarks that "the evolution of university departments of general practice is at its beginning and may take varying forms in different universities". Dr John Hunt, writing in *The Lancet* (4 July 1964, p. 29) on the academic needs of general practice advocates the adoption for general practice of an "education and career structure as rigorous as that for the specialities" and suggests that if we wish to capture the imagination of the new recruits to medicine, we must set educational standards which will stimulate them. General practice cannot expect to attract A-stream doctors if it fails to provide the framework of an active academic life. In my opinion, for the future of general

practice, the establishment of university departments is a *sine qua non*. Instead of drifting we should have a rudder and a star to steer by. The departments would act as the normal channel of communications between the practitioner and the various university departments and *vice versa*. The field worker in general practice needs regular and continuing contacts with other field workers; zoologists, botanists, ornithologists, geologists, geographers, astronomers and many others have field work problems and we can learn from one another. I need scarcely add that field work whose main problem hitherto has been to cope with a plethora of facts beyond our analytical capacity has a bright future in an age when there are machines waiting to process our data for us. We need wide contacts with the sciences in elucidating our problems and, in addition, we need wide contact with the humanities. Many of our most fascinating and intractable problems are those which are not susceptible of scientific appraisal. I refer to problems of crime, of punishment, of guilt, of compassion, of forgiveness, of human relationships in general.

A department of general practice could make itself a centre of research and of undergraduate and postgraduate education in the widest sense. The Gillie report takes the view that an actual practice or practices should be part of such a department, and experiments along these lines are prominent in the university teaching of general practice at Edinburgh and Manchester. I strongly support Dr John Fry's idea of research practices and believe that they should be established in each important human environment in the country and that the long-term staffing and guidance of these practices should be an important responsibility of the neighbouring general practice department. The development of the departments would attract first-class minds into general practice and from among these would arise teachers in the medical schools, with responsibilities as general practice examiners in the medical qualifying examinations. Medical teaching and examining should cease to be an almost exclusive preserve of the teaching hospital consultants, who are, I believe, in danger of becoming isolated from some of the important medical problems of the country. We often hear of the isolation of the general practitioner, never about the isolation of the consultant, which is a much more serious matter. Over the last two generations medicine at the universities has come to be represented more and more by the specialities and by personnel without any general practice experience and I cannot believe that this is a healthy development either for medicine or for the universities. The work of both medical teachers and students is divorced from the main source of what we sometimes unkindly call clinical material and the danger in this situation is that the new generation of doctors is being



taught almost exclusively by those who have no conception of the problems of our subject as they arise at ground level. The corrective to this is the reintegration of general practice into the medical faculties.

New medical situations continually arise in general practice and by this I mean either new diseases, or the new distribution of old diseases or changes in the prevalence rate or changes in the severity of diseases, their waxing and waning which may be discerned by the practitioner long before anyone else is aware of them. Where, if not in general practice, is anyone to become skilled in the assessment of the early stages of disease. Let us consider appendicitis. The safe and efficient handling of this dangerous disease depends on a co-operative effort between the general practitioner and the surgeon; the hospital gate being a divide separating the province of the one from the province of the other. For the whole of his professional career the general practitioner refines his methods of early diagnosis of this condition and the surgeon perfects his methods also. The flaw in this situation is clear. The student learns about appendicitis only from the surgeon; the expertise of the general practitioner is lost and neither the surgeon nor the student ever sees a new case. Not a satisfactory situation, unfair to the patient and exasperating to the general practitioner. No one expects a surgeon who must spend years perfecting his art, to spend years in general practice thinking about the early recognition of this disease. What is required is that the general practitioner should do his part of the work systematically and scientifically, and publish and teach. Perhaps then, appendicitis will cease to be the general practitioners' nightmare.

Where, again, is a student to obtain a feel for epidemiology, if not in general practice? The method of notification which should be one of our regular epidemiological tools yields information which can be obtained in no other way. Where should we be without that most important form of notification of all—the death certificate. On this is based our strategy for combating the killing diseases. When I speak of notification, I do not mean measles. The notification of measles, which in some years accounts for 90 per cent of all statutory notifications yields no information in any way commensurate with the time wasted upon it. I look upon notification as a weapon against our main problems of morbidity—cancer, bronchitis, pyelonephritis, influenza, peptic ulcer and many others. Once we begin to notify we begin to clarify our ideas, refine our diagnoses, examine our criteria and bring our clinical work into clearer perspective.

The general practitioner has enviable opportunities in psychiatry—not because his patients are any madder than anyone else's—but because he has a relatively unselected sample of the population at

his pabulum. He can observe a patient before psychiatric symptoms have developed and can go on observing long after they have subsided. The human mind is so much more complicated than all the rest of the body put together—the relation is like that of a computer to a meccano set—that no one can claim to be more than wandering in the foothills of this exceptionally difficult branch of medicine. From his special point of vantage, the general practitioner can perhaps claim to have some familiarity with some of the foothills.

These kinds of experience, readily available in general practice, should be regularly injected into the general body of medical knowledge via the general practice departments. It would be like archaeology, which is continually refreshed by the contributions of field workers—I have only to name Sir Mortimer Wheeler.

Fully representative medical faculties will be better equipped for their central role in university life. I talked earlier of the two cultures and how Snow had observed that “there seems to be no place where the cultures meet”. Who can doubt that the revitalized medical faculties would be one such place. I quoted Dr Ramsey earlier as saying that recovering something of the unity of knowledge is “the really urgent and spiritual need of our time . . .” and this takes us right back to Comenius (quoted by the late Canon Raven<sup>10</sup>) who in 1641, came to England to “try to establish a new type of college, a new sort of society, a college in which the unity of all knowledge should be a primary conviction and the pursuit of every subject should be in relation to the pursuit of all other subjects”. (Comenius was writing eight years after the Galileo affair and 19 years before the foundation of the Royal Society.) From Comenius another step back takes us to Francis Bacon,<sup>11</sup> who in a letter to Lord Burleigh said “I have taken all knowledge to be my province”.

We have come a long way from Horace, from the Royal Society, from Galileo, from Darwin, from the Prophet Jeremiah, to the problems of our own times. I have cast the general practitioner in a role which is now almost unknown to him, of an academic person, a student, a researcher and a teacher. If we are apt to draw back from this conception and to feel that we know enough, and that if there is more knowledge to be looked for, surely others can be relied on to discover it on our behalf, may I conclude with a quotation from Newton? When I was at school, Newton impressed me above all the other scientists of history. In the range and depth of his discoveries, and in his imagination and the speed at which he worked, he seemed to stand alone. Luminous theories with iridescent edges. Gravity . . . what a useful concept, how could we do without it? A theory from fairyland. The earth attracts the moon—it is rather like Everest and the mountaineers—the earth attracts the moon,

because it is there. This magic force which glues the universe together across empty nothingness. Newton summed up his work in words which are familiar to everyone.

“I seem to have been only like a boy playing on the seashore and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.”<sup>12</sup>

We shall be able to keep our bearings in this present two-culture situation if we remember just a few things. St Paul on charity, and Horace *nullius in verba*; the aspiration of Sir Francis Bacon that all knowledge should be his province and the humility of Sir Isaac Newton at the great ocean of truth lying all undiscovered before him. The great ocean of truth lying all undiscovered, lies before us also, and that is the challenge and that is the essence of the matter.

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**Minor Mental Illness in London.** Some Aspects of a General Practice Survey. M. SHEPHERD, *et al.* *Brit. med. J.* 1964. 2, 1359.

This paper which is to some extent complementary to that of Watts *et al.* (*Brit. med. J.* same issue, pp. 1351-1359) reports the findings of a 12-month survey by 80 general practitioners in the Greater London area. The incidence of minor psychiatric illness was found to be almost 14 per cent of patients at risk. There was considerable variation in incidence between different practices which appeared to be related in part to the doctors' attitude towards mental illness. Middle-aged women were the commonest group to suffer from neurotic illness and the survey also showed a strong correlation between psychiatric disorders and chronic organic illness.