A VOCATION TO ACADEMIC MEDICINE

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HOUGH A PHYSICIAN reared to care for the sick and comfort the distressed, I find myself, by a train of curious chances, engaged in research on theoretical mathematical genetics. On two occasions I have escaped the net. But like the infant Samuel, I have three times been called. And though not given to easy mysticism, I must believe that this work is God's plan for me. I am not to escape it and I must make the best of it. In this paper I shall write about how I have tried to do so; but I shall not presume to moralize or to prescribe. I shall merely tell my tale. These remarks are my opinions only, and I shall not weary the reader by repeatedly saying so.

All serious Christians who aspire to be scientists must at some stage confront the difference between spiritual strategy, that is the definition of their distant goals, and tactics, the intermediate steps they take to reach these goals. All evil, we are told, comes of mistaking means for ends. Nevertheless, the means are not to be triffed with. The well-intentioned may aim to climb a lofty mountain, but they do so, if at all, by taking many careful steps. They ignore their footing at their peril. None is so liable to stumble as the one whose gaze is for ever fixed on the stars.

The practising physician, his eye in a fine frenzy rolling, may suppose it his job to foster health, fight disease and suffering, further well-being, beauty, intelligence, even virtue. But while these idealistic beacons lend purpose and must never be dimmed, they do nothing to guide even the most practically minded in their climb. We recall Virgil's reply to Dante's plea for help to climb the Holy Mountain by the direct path: 'You can't get there from here'. (I translate freely.) Perhaps this image inspired Lewis Carroll's mountain, which Alice could reach only by setting out in the most unlikely direction. By the very nature of their work, academic physicians must depart even more radically from the tried tactical path. In Alice's sense they must firmly turn their backs on suffering as a tactical goal. What is worse, this forbidding path they are asked to take is by no means a sure one. Those who set forth in the wild, rough, unpitying forest have no faithful Virgil to rescue them when threatened.

Now such an academic pathway is spiritually dangerous. Christ repeatedly warned against hiding behind abstractions, aspiring to love God when we cannot even love our fellows, cultivating grandiose charity when we should be caring for the sick, the needy, the prisoner. Is it not safer—socially, professionally, psychologically, spiritually—to exercise compassion with people we know rather than plan distant benefits for faceless humanity of the future? My question is neither ironic nor rhetorical. It states a dilemma to which I have no easy answer. I do not presume to advise or to form consciences, merely, I hope, to cast a little light on the predicament.

To begin with, not all medical research is bleak. There are tangible blessings from modern drugs, surgery, diagnosis. But medicine owes a deep debt to centuries of scholarly research, research that at the time held no 'human interest', won no smiles from warm-hearted prelates, no glowing footnotes in theological texts. This anonymity of the forerunner is no cause for self-pity. Those who freely go out in the cold must expect to be chilled. The rewards for basic medical research have been chimerical, and perhaps always will be.

The spiritual dangers are only too real. To many professionsmedicine, law, dentistry, the pastorate among others-is ascribed the responsibility of personally and compassionately applying skill and scholarship to real, individual persons who need it. However, for those who have never followed such a profession, it is hard to grasp how compassion differs from attachment. No good physician may neglect compassion; but every physician needs detachment. Experience has long shown that it is almost impossible to have true professional concern about one's patients if one is worried about them. The romantic image of the physician sleepless from brooding over the plights of his patients is a portrayal, not of a compassionate doctor, but of an incompetent. For concern is a virtue of the intellect and the will, whereas worry is a distress of the emotions. That is why no wise doctor undertakes the professional care of his relatives, even if they misunderstand his rejection and are hurt by it.

Nevertheless, a nice balance has to be kept. Especially in those untempered by clinical practice, cultivating the necessary

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detachment too readily means loss of compassion. The distinction was well caught in the film *Mash*, which was widely misinterpreted by sentimental and ill-informed critics. The serious intent of the film was not to show how war first brutalizes and then cheapens human life, but to portray the difficulties with which young surgeons must keep their sanity and professional skill intact under an overload of hard work and responsibility, and in the face of the discouragement that comes from a high rate of failure.

Those doctors who, sidestepping the challenge of compassionate detachment, turn to abstract research, will doubtless examine their motives. But the major risks are subtle and lie deep. For there is ordinarily no occasion offered by basic science through which their professional compassion is kept alive. My own remedy for doing so has been to devote perhaps one-fifth of my time to simple, unadorned, unpretentious, clinical practice. Inasmuch as it refreshes my soul, I have not been tempted, as pure clinicians are through boredom, to looking on the complaints of patients as interesting intellectual challenges rather than as the concerns of persons with personal needs.

Those physicians wholly cut off from patients may perforce seek by meditation what I have tried to do by meeting and seeing my patients. But in their place I should fall sadly short. I visualize with difficulty; and faced with their predicament I should perhaps put a false image of patients in place of real persons. This distortion is akin to idolatry; and in deeper Christian insights it may indeed be a kind of idolatrous worship of a sham mystical body of Christ.

The academic have cause to mistrust passionless intellectuality, narcissistic concern with academic perfection. Even those setting out with pure hearts and warm charity may become slowly desiccated by long travelling on a path unwatered by tears. For the practitioner, the gratitude of one's patients, even if not the noblest of motives, is a pleasant balm. From time to time a heroic gratitude from patients for whom one can give no cure, no hope, no alleviation, is the most humbling of inspirations. That too is denied to those that must keep company with their abstractions.

Some motives for entering academic medicine—fame, reputation, power—are scarcely worthy of the Christian calling. Nevertheless, even at a psychological level, there is a proper vocation to research; and it is not for all. It is fatal to attitudinize: to suppose that all intelligent people can and should be equal to doing research, and that not even to try is an admission of failure. Those, however

intelligent, who are dismayed at the prospect of recurrent failure, perplexity, hard work, boredom, at the demands of thoroughness, of inventiveness, of severe intellectual discipline, are unlikely to derive much from the life in research. One has need of a peculiar intellectual integrity if one is to preserve at all stages a clear notion of what one knows, what one understands, and what one has proved and how. Thus, Christian psychologists studying the formal science of mind must not be constantly appealing to biblical revelations or speculative theology to patch up holes in their professional knowledge or understanding. Yet that constraint need not, indeed must not, deprive them in their private lives as persons of those fuller sources. Neglect of them is dangerous to both one's science and one's wholeness. Professional scholars may at first be moved by the remote hope of benefitting patients. But once engaged in research, they find that new moral sentiments also drive them, even in research that promises no benefits to the suffering. Such sentiments include a concern with truth; a sense of wonder tinged with awe; a trust that one may at least inspire others to continue the quest. To go further in knowledge and understanding, one must escape from facile received notions about what is true and profitable. Perhaps I may sketch three steps in this process.

The first, most concrete, objective of the scholar is the search for sound scholarly principles. The notion of a scholarly principle is that behind a multitude of particular cases lies an intelligible form that has meaning, integrity, authenticity. Scholarship aims to capture many such forms into a coherent and parsimonious wisdom. The dedication to truth that is implied by it and is demanded of the scholar has an intensity unfamiliar even among the most honest and devoted laymen. It calls for a ruthless sacrifice of one's personal feelings, a discipline that may seem cold, loveless, disloyal.

It is all too easy to reach shoddy generalizations that attain simplicity only by doing violence to the evidence. The temptation to do so assails even honest scholars whenever they are induced to play public oracle in the hope of spreading at least partial understanding. While at first the obligation to assure that one's principles are sound comes perhaps from a secular academic field, the uncompromising honesty it exacts is a valuable preparation for the love of truth itself. Not that I imply that mere professional virtue conveys any particular grace; but because scholarly discipline does for the mind something of what austerity and penance do for the body. True, its benefits may be lost, even perverted; but we must respect even secular things that conduce to virtue. It is this aspect, the intellectual integrity of the scholarly experience that is so often neglected, vilified as cold-blooded or pretentious by wellmeaning Christians. They may even obstruct it, the most unkindest cut of all.

The second objective of the scholar, though also scientific, has remote ethical overtones. The scholar is under obligation to integrate diverse experiences into a coherent knowledge. For, constrained as it is by method, resources, time, ethics, the scale of empirical science is always finite. Yet the applications are infinitely particular. It is no trivial task to anneal the knowledge distilled from limited experiences to its application in particular cases without incongruous distortion. The pressing demands imposed, willingly or not, by the needs of the sick hamper this task rather than helping it.

The third goal of the scholar, the most elusive, is to deepen one's insight in the light of knowledge. Insight is an ambiguous product of treacherous experiences. Among those minds far removed from the real world, what purports to be insight may be nothing but prejudice or delusion. But the risks of such abuses do not tarnish the richness that may come from refinement of experiences. The insight may come from unexpected and even peculiar discoveries. Often from repeated failure to solve a problem one learns that the fault lies, not in defective invention but rather in the flaws in the problem and how inadequately it was formulated. The formal problem as addressed may in time turn out to be quite meaningless. At other times the problem may prove to be a disguised version of a question that was answered long since. There is more to be learned from this latter realization than a readymade answer. It may show how our shallow multiplication of problems distracts from a majestic unity. The Great Architect is not so niggardly as the mongers of fact suppose; scientists who remain faithful to their academic ideals acquire a far greater sense of its beautiful simplicity.

Often the shifting of the battle lines brings one unexpectedly to the very problems that serious thinkers have long pondered and that the merely clever too readily brush aside as dated: the nature of existence and non-existence; the significance (as distinct from the signification) of meaning; relationship; the nature of proof; the warrants for our deepest convictions. By finding himself unexpectedly on this old familiar highroad, the scientist is rationally and experientially freed from the fetters with which science has been loaded by the more doctrinaire positivists. Once unshackled, the scholar, without forsaking or compromising science, is free to pursue his insights into the deeper spiritual implications of scholarship.

Perhaps a simple example from my own field may help. The classical physicist perceived magnificent order in the clockwork behaviour of the universe, the keen unpassioned beauty of a great machine. Randomness was perceived as a flaw to be painstakingly weeded out. In my own field, geneticists dealing with randomness at first saw it as a nuisance: then as a tolerable burden: then as a useful test of authenticity in data. Finally it is dawning on us that randomness is a device of breath-taking beauty and of the richest evolutionary value. For instance, it allows proteins as they are manufactured to assume their operating form, immunity to be ensured without a preposterously elaborate genetic code, it allows unwanted chromosomes to be suppressed, population size to be adjusted, a species to adapt quickly to a changing environment. Those scientists who do not shy away from deeper insights but really want to see can gain much from reading this compact ingenuity into the form of the universe. More, they find in it an allegory of mystery: how small successes of physical determinism led to discarding much that, on closer understanding, proves to have a far richer pattern. Much that baffles and used to be arrogantly dismissed as noise, as mere distraction, may contain untold wealth. We are just beginning to grasp an even deeper and richer area, the theory of chaos, which may perhaps illuminate the nature of free will, another pearl dismissed as an illusion by the shallow triumphs of determinism. It is said, with admiration, that God writes straight with crooked lines. With even greater admiration we may say that God creates order with randomness and chaos: not from them, but with them, as he made life with earth, not by changing its matter or repudiating its properties (as the Manichaeans do) but by marvellously elaborating its form.

Is there anything that academic medicine may contribute to the life of the Church? In a way, that is like asking 'is there anything that China can contribute to the Church?' The obvious answer is yes, *Chineseness*. It is an evergreen mistake to suppose that when we christianize, the spiritual benefits all flow from us to them. The commission to teach all nations has yet to be seriously applied to the nation of scientists and medical scholars; and there is even less receptiveness to what these fields may contribute. I have hinted at some enriching insights gained from science that are ready to be returned at least at the level of natural theology and mystical insight.

Moreover, like it or not, modern secular culture is cast in terms of secular science. Whether we are to take 'demonic possession' as literal or metaphorical, it has little meaning for modern Christians, and the modern pagan supposes it yet one more repellent superstition about epilepsy. I cite this rather trivial instance out of many in which the idiom (but not, of course the inalienable substance) of Christianity might benefit from constructive and benign dialogue with Christian scientists. Unfortunately that policy has not been adopted by the institutional Churches which, ignoring their lay experts, have arrogated to themselves the right to judge scientific claims. They have been repeatedly vanquished by destructive and malign pagans, and in their imprudence they have continued to fuel the charge that Christianity is an obstacle to enlightenment. Nowhere are these faults more evident to me than in medical ethics, the field with perhaps the greatest social implication for the lives of Christians. Some modern medical ethicists are distinguished theologians, some adept philosophers, some kindly pastors, some bumbling laymen. But I know of few, very few indeed, with the necessary grasp of, or concern with, medical ontology, a difficult field at best. The results are like buildings designed by those who admire beautiful architecture but know nothing of engineering.

As a concrete example, there is a traditional condemnation of artificial abortion, and I have no quarrel with its general purport. But in addressing it there has been no concern to offer any formulation of what a human being is and how we are to recognize one. Perhaps that issue is dismissed as a purely medical question. If so, then the pastor must either keep his opinions about application to himself or acquire the necessary medical education to flesh out the theological principles. And in scholarship such an education must go far beyond that customarily given to most medical students. If on the other hand the nature of humanness is not a purely medical question, then the guidelines must be coherent and must not be glibly stated in terms of normality, disease, consciousness, personality. In bandying about such ontological terms there may be radical and incurable discrepancies between their medical and theological meanings. It is intolerable for conscientious clinicians to be perplexed because it is unclear whether they have the authority to make their own decisions about applying some principle. Some products of conception are so disorganized that nobody would claim that they are human persons; but, as always, the difficult cases are those at the borderland; and existing theology offers no authentic help in solving them.

Christian theology makes much of traits such as rationality, responsibility, freedom, understanding, spirituality, speech, foresight, that distinguish humankind (and its moral and spiritual concerns) from other species. There are strange gaps in the list. Humour, concern with scholarly secular truth and a pursuit of authentic abstractions, all distinctively human features, have received scant attention in systematic theology, lamentable neglect in pastoral. Those called to certain occupations must needs find their own way, unguided, unaccoutred, unchurched. They too have their own pastoral needs. It is not enough to give them an occasional grudging admission that their work though like cleaning drains unsavoury, may yet be blessed because it leads at last to social benefits. It is little consolation to the scholars that their dedicated search for truth is tolerated because it is useful, that it feeds technology, any more than it would console artists for Rembrandt's paintings to be tolerated because they make good jigsaw puzzles.

I have said that reflective scientists may enrich their spiritual lives by what they learn from their studies. Yet they need help. If one is to judge by the harsh treatment meted out to him by his superiors, Teilhard de Chardin seems to have gone badly astray in trying to express the spiritual insights to be gleaned from physical anthropology. As it is, in a scandalously unsympathetic environment, scientists must do the best they can, armed with two prudential, if at times rather pusillanimous, principles.

The first is the virtue of tactful privacy. One cannot be condemned and cannot give scandal from inner convictions that one does not publicize.

The second is the enduring belief that God will never desert those who with a pure heart honestly seek truth.