I. MEDICINE AS A HUMAN ENTERPRISE

*An Agency of Change*

Only brief reflection on medicine since its emergence from World War II as a scientific enterprise makes it plain that even modest general practitioners have at their disposal a truly amazing arsenal of regimens, procedures, techniques, technologies, specialties, drugs, anesthesias, and the like – any of which can readily be brought to bear on the merest of complaints. And the cornucopia of medicine's scientific breakthroughs and technological prowess are continuously enhanced.

At the same time, these developments are fraught with serious questions. Clearly, the governing aim of medicine involves performing some action on some unique individual (or, in some situations, on some group or broader collective), an action which is designed to bring about specific sorts of changes in the recipient(s) (usually in the form of benefits, though it may of course also occur in some form of risk, hence harm, or at least unexpected outcome) (Pellegrino, 1979). As profound changes in one or more human lives are sometimes brought about in each clinical encounter (whether from sick to healed, disabled to functional, or otherwise), so medicine itself undergoes at times profound changes. For example, as a direct result of the ability to enable fewer babies to die at birth and more people to stay alive afterwards (and for longer periods), the resultant population explosion helped bring about fundamental changes in the ways people relate with each other and the surrounding world (urban versus rural lifestyles and environments, but also types of disease, accidents, etc.). Similarly, the advent of the 'pill' brought about for the first time in our history a real separation of recreative from reproductive sexual activity, which in turn resulted in wholly new kinds of ethical issues – which, further, brought about changes in family structure, educational policy, child rearing norms and practices, individual family and population planning, and even such a sensitive issue as the right to reproduce.
All of which is mere preface to recent discoveries in genetics and the consequently awesome questions about privacy, patenting of life forms, and the prospects of plant, animal and human cloning. Enhanced technical prowess brings about fundamental, irreversible alterations in human life and society (Jonas, 1984, pp. 25-50; Bayertz, 1994).

Specifically modern technology, Hans Jonas understood, results in decisive changes from what has been hitherto regarded as merely (if at all) possible. Even though in classical times, for instance, Sophocles' Antigone gave "awestruck homage to man's powers," that proud celebration of human "violent and violating irruption into the cosmic order" was inevitably accompanied by "a subdued and even anxious quality…[for] man is still small by the measure of the elements…" (Jonas, 1974, p. 5). With modern technology, however, everything changes. For with the drastically altered scale and rush of technological intervention, it is starkly clear that we've also hit upon nature's "critical vulnerability…to man's technological intervention—unsuspected before it began to show itself in damage already done" (Jonas, 1974, p. 9). The dimensions of this kind of power and what it brings in its wake is only beginning to be appreciated – the profound changes in the scope and range of human action, for instance, or the expansion and specificity of artificial environments (whether space capsule or a lamb's cellular entity as a veritable laboratory for Wilmott's cloning of 'Dolly' – the mitochondria of the 'parent' cell being left to 'work' with the 'donor' cell's nucleus).

Of equal import are certain social ramifications. It is currently plausible, for example, not only to conceive and practice genetic control of future people ("taking our own evolution in our own hands," in Sir John Eccles' phrase; 1979, p. 120), nor merely to conceive and practice behavior control on individuals and entire populations, using psycho-pharmacological interventions (Clark, 1973, pp. 94-5), but as well it has become plausible to control death (a genetic error in somatic cells) (Burnett, 1978, p. 2). This dramatic enhancement of medicine's reach into individual lives and the social sphere harbors great significance, within and outside of technological cultures. Medicine is a unique enterprise, which has its own special kind of discipline.

A Form of Power

In the first place, medicine is a kind of disciplinary bridge between the natural and social or humanistic sciences (Engelhardt, 1973, p. 451). It is the "most