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The medicalization of life

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Two contributions from Dr Ivan Illich follow. The first, in which he sets out his primary thesis of the medicalization of life, is a section from Dr Illich's book 'Medical Nemesis'. (It is reprinted with the permission of the author and his publishers, Messrs Calder and Boyars.) The second is a transcript of the paper which Dr Illich read at the conference organized by the London Medical Group on iatrogenic disease. Both are ultimately addressed to the recipients of medical care, the general public, although the second paper is specifically addressed to young doctors and medical students. For Dr Illich the world is suffering from too much medical interference, and a medical edifice has been built which is one of the threats to the real life of human beings – a threat which so far has been disguised as care.

In 1960 it would have been impossible to get a hearing for the claim that the ongoing medical endeavour itself was a bad thing. The National Health Service in Britain had just reached a high point in its development. It had been planned by Beveridge on the concepts of health prevailing in the 1930s. These assumed that there was a strictly 'limited quantity of morbidity', which if treated would result in a reduction in subsequent sickness rates. Thus Beveridge had expected that the annual cost of the health service would fall as effective therapy reduced morbidity.[46] It had not been expected that the definition of ill health would widen the scope of medical care and that the threshold of tolerance to disease would decline as fast as the competence for self-care or that new diseases would appear due to the same process that made medicine at least partially effective.

International cooperation had achieved its Pyrrhic victories over some tropical diseases. The role which economic and technological development would play in spreading and aggravating sleeping sickness, bilharzia and even malaria was not yet suspected.[47] The spectre of new types of rural and urban epidemic hunger in 'developing' nations was still hidden. The risks of environmental degradation were still invisible to the public at large. In the US people were getting ready to face the skyrocketing costs of care, the exorbitant privileges of doctors, and the inequitable access to their services.[48] Nationalization, or the replacement of privileged enterprise by regulated monopoly, still seemed the answer.[49] Everywhere the belief in unlimited progress was still unshaken, and progress in medicine meant the persistent effort to improve human health, abolish pain, eradicate sickness and extend the life span by using ever-new engineering interventions. Organ grafts, dialysis, cryogenics, and genetic control still fired expectations rather than dread. The doctor was at the height of his role as a culture hero. The deprofessionalized use of modern medicine still had the status of a crank proposal.

By 1975 much has changed. People have learnt that health depends on the environment, on food and on working conditions, and that these, with economic development, easily turn into dangers to health, especially for the poor.[50] But people also still believe that health levels will improve with the amount spent on medical services, that more medical interventions would be better, and that doctors

[46]Office of Health Economics. *Prospects in Health.* OHE, 162 Regent Street, London W1R 6DD, 1971, 24 pp.

[47]For a survey of the literature on disease-consequences of developmental activities see Hughes, Charles C, Hunter, John M. *Disease and 'development' in Africa*, in: Social Science and Medicine, vol 3, no 4, 1970, pp 443-488.

[48]Neither had Edward Kennedy proposed that the federal government act as the insurance agent for the entire nation, covering all medical, dental and psychiatric costs without deductibles or upper limits, see Kennedy, Edward M. *In critical condition: the crisis in America's health care.* NY, Simon and Shuster, 1972, nor had his opponents stated their case for an all-comprehensive Health Maintenance Organization. For a summary see Roy, William R. *The proposed health maintenance organization of 1972.* Washington, Science and Health Communications Group, Sourcebook Series, vol 2, 1972.

[49]Ehrenreich, Barbara and John. *The American health empire: power, profits and politics.* A report from the Health Policy Advisory Center. NY, Random House, 1970.

[50]On the link between poverty and ill health in the US, see Kosa, John *et al.* eds. *Poverty and health: a sociological analysis.* A Commonwealth Fund Book, Cambridge, Mass, Harvard Univ. Press, 1969.

know best what these services should be.[51] People still trust the doctor with the key to the medicine cabinet and still value its contents, but increasingly they disagree on the manner in which doctors should be organized or controlled. Shall doctors be paid out of the individual's pocket, by insurance, or from taxes? Shall they practise as individuals or in groups? Shall they be accountable for health maintenance or for repairs? Shall the policy for health centres be set by specialists or by the community? In each case opposing parties still pursue the same goal of increasing the medicalization of health, albeit by different means. Too few, and the wrong kind of public controls over doctors, medicines, research, hospitals or insurance are blamed for current frustrations.[52]

In the meantime, total expectations increase faster than resources for care. Total suffering increases with more therapy. Total damages increase exponentially with the cost of care. More and more patients are told by their doctors that they have been damaged by previous medication and that the treatment now being given is conditioned by the consequences of their previous treatment, which sometimes had been given in a life-saving endeavour, and much more often for weight control, hypertension, flu or mosquito bite. A top official of the US Department of Health could say that 80 per cent of all funds channelled through his office provide no demonstrable benefits to health, and much of the rest is spent to offset iatrogenic damage. Economists might say that declining marginal utilities are dwarfed in comparison to the marginally rising disutilities produced by the medical endeavour. Soon the typical patient will come to understand that he is forced to pay more, not simply for less care, but for worse torts, for evil that he is the victim of, for damaging 'health production' – however well intentioned. For the time being, when people are hurt by the medical system, they are still believed to be exceptions. Rich people feel that they have had bad luck and poor people that they have been treated unjustly. But it is now only a matter of time before the majority of patients find out what epidemiological research discovers:[53] most of the time they would have been better off suffering without recourse to medicine. When this insight spreads, a sudden loss of confidence might shake the present medical enterprise beyond repair.

During the last half dozen years the attitudes of students towards their teachers have changed. It happened quite suddenly when students around 1968 admitted openly to each other what they had always known: that they learned from books, companions, cramming for examinations and a rare personal moment with a teacher, but not from the curricular system. Since then, many students have become consciously refractory to the teacher as an administrator of teaching procedures. The teacher became aware that he had lost respect, except on the rare occasions when he fell out of his role as a bureaucrat. It is not surprising, therefore, that at least in the US and France, the drop-out rate among teachers has risen enormously.

When the crisis of confidence takes place in the medical system it will have deeper effects than the crisis in the school system. Students know that they will one day get out of school, the later the brighter their prospects. Patients, however, may come to feel that they might never get out of the hands of the doctors once having started on a patient career. Students who cynically accumulate certificates raise their chances on the job market, no matter how little they have learned. Patients will reasonably feel that they add to their original complaint not only new illnesses but also new certificates testifying to their job incompetence.

Today it is possible to foresee such a sudden crisis in health consciousness. The vague intuition of millions of victims of medical care requires clear concepts to gel into a powerful force. Without an intellectual framework, public recognition of iatrogenic medicine could easily lead to impotent anger

[51]Strickland, Stephen P. *US health care: what's wrong and what's right.* NY, Universe Books, 1972, 127 pp. A public opinion survey comes to the conclusion that 61% of the population and 68% of US doctors are aware that basic changes are needed in the organization of US medicine. Physicians rank the problems as: high cost of treatment, shortage of doctors, malpractice suits which hamper medical action, unnecessary hospitalization, limited insurance, rising expectation and lack of public education. The public blames shortage of doctors, costly and complicated insurance, unnecessary treatment, and doctors refusing house calls. The option of decreasing overall medicalization does not even enter the questions or the answers.

[52]To verify this summary on the overall trend of discussion, at least in the USA, consult Marien, Michael, *World institute guide to alternative futures for health,* A bibliocritique of trends, forecasts, problems, proposals, draft, World Institute Council, NY, July, 1973, which is an annotated bibliography evaluating 612 books, articles and reports concerned with health policy in its broadest dimensions. The guide deals mainly with US writings on US subjects published or republished during the last ten years. For France, consult Mathe, C and G. *La santé est-elle au-dessus de nos moyens?* Paris, Plon, 1970.

[53]Dingle, John H. *The Ills of man,* in: Scientific American, 229, no 3, Sept 23, 1973, pp 77–82. Opinions converge as to the ineffectiveness of medicine. The ills of man are differently perceived and defined in the perspective of the people still at large, the physician, the patient guided by the physician and by the keepers of vital statistics. From all four points of view, the chief burdens of man's ailments, numerically at least, consist of acute, benign, self-limiting illness. However, as longevity increases the chronic, degenerative diseases rapidly come to be the dominant cause not only of death but also of disability. On this too, the four distinct publics agree.

which might be channelled by the profession to strengthen medical controls even further.[55] But if the experience of harm already done could be articulated in such clear, well founded, and simply stated categories that would be useful in political discussion, it might endow entire populations with a new courage to recover their power for self-care.

The evidence needed for the indictment of our current medical system is not secret; it can be gleaned from prestigious medical journals and research reports.[56] It has not yet been put into political use, however, because it has not been properly gathered, clearly classified and presented in non-medical terms. The first task will be to suggest several categories of damage to health that are due to specific forms of medicalization. In each of these areas of over-medicalization, professional presumption and public credulity have reached health-denying levels.

Dependence on care

One simple and obvious measure for the medicalization of life is the rising share of national budgets spent at the behest of doctors. The US now spends 90 billion dollars a year for health care. This amount is equivalent to 17.4% of the GNP.[57] To assign a growing amount of national earnings to medicine, a country does not have to be rich. New Guinea, Nigeria and Jamaica are countries in which the medicalization of the budget has recently passed the 10% mark.

During the past 20 years, while the US price index has risen by about 74%, the cost of medical care has escalated by 330%.[58] Most of the increase was paid out of an increased tax burden; while out-of-pocket payments for health services rose threefold, public expenditures for health rose exponentially. A good deal of this enriched not only doctors but also bankers; the so-called administrative costs in the insurance business have risen to 70% of insurance payments to commercial carriers.

The rate of increase can be explained by rising costs of hospital care. The cost of keeping a patient for one day in a community hospital in the US has risen 500% since 1950. The bill for patient care in major hospitals rose even faster: it tripled in eight years. Again, administrative expenses grew fastest, multiplying since 1964 by a factor of 7, laboratory costs by a factor of 5.[59] Building a hospital bed now costs in excess of $85,000, of which two-thirds buys mechanical equipment written off or made redundant within ten years. There is no precedent for a similar expansion of a major sector of the civilian economy. It is ironic, therefore, that during this unique boom the US witnessed another parallel event, also unprecedented in any industrial society: the life expectancy

[55] Hoffman, Allan, Inglis, David Rittenhouse. *Radiation and infants.* A review of Sternglass, Ernest J. *Low level radiation,* in: Bulletin of the Atomic Scientists, December, 1972, pp 45–52. The reviewers foresee the possibility of an imminent anti-scientific backlash from the general public when the kind of evidence provided by Sternglass becomes generally known. The public will come to feel that it has been lulled into a sense of security by unfounded optimism on the part of the spokesman for scientific institutions with regard to the threat constituted by low level radiation. The reviewers argue for policy research to prevent such a backlash or to protect the scientific community from its consequences. I argue that a backlash against medicalization is equally imminent and that it will have characteristics that distinguish it clearly from a reaction against high-energy technology. The effects of a synergy of various iatrogenic pandemics will be directly observable by the general public. They will appear on a much shorter time-scale than the consequences of mutagenic radiation levels, and they will affect directly the quality of life of the observer rather than that of his offspring.

[56] Brook, Robert, *Quality of care assessment: choosing a method for peer review* in: New England Journal of Medicine, vol 288, 1973, p 1323ff. Depending on the method, from 1.4 to 63.2% of patients were judged to have received adequate care.

[57] Maxwell, R. *Health care: the proving dilemma; needs versus resources in Western Europe, the US and the USSR,* Dekinsey & Co, NY, 1974.

[58] Feldstein, Martin S, *The medical economy,* in: Scientific American, 229, no 3, Sept 1973, pp 157–159, believes that the phenomenal rise in the cost of health services in the US is due to the growing incidence of prepayment for health services there. As a result of prepayment, hospitals are moved towards increasingly expensive and new ways of doing things, rather than providing old products more efficiently and cheaply. Changing products rather than rising labour costs, bad administration or lack of technological progress have caused this rise. One of the main reasons for this change in products is increased insurance coverage which encourages hospitals to provide more expensive products than the consumer actually wishes to purchase. His out-of-pocket costs appear increasingly modest, even though the service offered by the hospital is increasingly more costly. High-cost hospital care is thus self-reinforcing. Cohen, Victor, *More hospitals to fill: abuses grow,* in: Technology Review, Oct–Nov 1973, pp 14–16, deals with recent US hospital building sprees and their effects. Since empty hospital beds in modern hospitals cost up to 66% of full beds, the filling of these beds becomes a major concern on a growing administration. This adds to the duplication of facilities and waste of complex equipment on people who cannot use it. Specialized personnel are spread thin. Medical standards are relaxed to keep the beds full, and unnecessary hospitalization leads to unnecessary surgery. See also Lee, M L. *A conspicuous production theory of hospital behaviour,* in: Southern Economic Journal, July, 1971, pp 48–58.

[59] Knowles, John J. *The hospital,* in: Scientific American, 229, no 3, Sept 1973, pp 128–137.

for adult American males declined, and is expected to decline even further.[60]

In England the National Health Service ensured that the same kind of cost-inflation would be less plagued by conspicuous flim-flam. A stern commitment to equality prevented those astounding misallocations to prestigious gadgetry that have provided an easy starting point for public criticism in the US. Tight-fisted misallocations have made public criticism in the UK less colourful. While the life expectancy of adults in England has not yet declined, chronic diseases of middle-aged men have already shown an increase similar to that observed a decade earlier across the Atlantic. In the Soviet Union physicians and hospital days *per capita* have also more than tripled and costs have risen by 300% over the last 20 years.[61] All political systems generate the same dependence on physicians, even though capitalism imposes a much higher cost.

Only in China, at least at first sight, the trend seems to run in the opposite direction: primary care is given by non-professional health technicians assisted by health apprentices who leave their regular jobs in the factory when called to assist a member of their brigade.[62] In fact, however, the Chinese commitment to the ideology of technological progress is reflected already in the professional reaches of medical care. China possesses not only a paramedical system, but also medical personnel whose standards are known to be of the highest order by their counterparts around the world. Most investments during recent years have gone towards the further development of this extremely well qualified and very orthodox medical profession; 'barefoot medicine' is increasingly losing its makeshift, semi-independent character and is being integrated into a unitary health care system. After a short honeymoon with a radical deprofessionalization of health care, the system of referral from the neighbourhood through several levels of increasingly more complex hospitals has grown at a remarkable speed. I believe that this development of a technical-professional side of medical care in China would have to be consciously limited in the very near future if it were to remain a balancing complement rather than an obstacle to high-level self care.

The proportion of national wealth which is channelled to doctors and expended under their control varies from one nation to another, and falls between one-tenth and one-twentieth of all available funds. This means that the average expenditure *per capita* varies by a factor of up to 1,000: from about $320 in the US through $9.60 in Jamaica to $0.40 in Nigeria.[63] Most of this money is spent everywhere on the same kinds of things. But the poorer the country, the higher the unit price tends to be. Modern hospital beds, incubators, laboratory equipment, or respirators cost even more in Africa than in Germany or France where they are made; they break down more easily in the tropics, are difficult to service, and are more often out of use. The same is true for the investment in the training of doctors who use such highly capitalized equipment. The education of a cardiologist represents a comparable capital investment whether he comes from a socialist school system or is the cousin of an industrialist in Brazil sent on a government scholarship to study in Germany. The poorer the country, the greater the concentration of rising medical expenditures. Beyond a certain point, which may vary from country to country, intensive treatment of the patient requires the concentration of large sums of public funds to provide a very few with the doubtful privileges doctors confer. This concentration of public resources is obviously unjust when the ability to pay for a small fraction of the total cost of treatment is a condition for getting the remainder underwritten by tax funds. It is clearly a form of exploitation when about 80 per cent of the

[60]The trend is not limited to North America: Longone, P., *Mortalité et morbidité*, see note 1. Four factors characterize European mortality and morbidity today: mortality of adult males is stationary or increases; the relative life span of men as compared with women decreases, accidents increase as a cause of death, fetal and perinatal death claim 30% of conceptions. There is also lamentable lack of research on the subject. Accidents per 100,000 have not changed since 1900, but since other causes of death have declined, they have become more important.

[61]Field, Mark. *Soviet socialized medicine*. NY, Free Press, 1967.

[62]Horn, Joshua. *Away with all pests. An English surgeon in People's China, 1954–1969*. Monthly Review Press, 1969. Sidel, Victor. *The barefoot doctors of the People's Republic of China*, in: The New England Journal of Medicine, June 15, 1972. Sidel, Victor, Sidel, Ruth. *The delivery of medical care in China*. The main feature of the Chinese system is an integrated network of neighbourhood stations that serve the functions of preventive medicine, primary medical care and referral to larger centres. in Scientific American, vol 230, no 4, April 1974, pp 19–27. Seldon, Mark. *China: revolution and health*. Health/PAC Bulletin, No 47, Dec. 1972 20 pp. (Published by Health Policy Advisory Center, 17 Murray Street, New York, NY 10007.) Djerassi, Carl. *The Chinese achievement in fertility control*. One-third of the women of child-bearing age may be practising birth control, in: Bulletin of the Atomic Scientists, June, 1974, pp 17–24. Fogarty International Center. *A bibliography of Chinese sources on medicine and public health in the People's Republic of China: 1960–1970*. DHEW Publication no (NIH) 73-439. Lin, Paul T K. *Medicine in China*, in: The Center Magazine, May/June, 1974. Liang *et al. Chinese health care. Determinants of the system*, in: American Journal of Public Health, vol 63, no 2, p 102ff. February 1973.

[63]Bryant, John H. *Health and the developing world*. Ithaca, London, Cornell Univ. Press, 1971.

real costs of private clinics in poor Latin American countries are paid for by taxes collected for the education of doctors, the operation of ambulances, and the price support of medical equipment. In socialist countries, the public assigns to doctors alone the power to decide who 'needs' this kind of treatment, and to reserve lavish public support to those on whom they experiment or practice. The recognition of the doctor's ability to identify needs only broadens the base from which doctors can sell their services.[64]

This professionally consecrated favouritism, however, does not constitute the most important aspect of the misallocation of funds. The concentration of resources on a cancer hospital in Sao Paolo might deprive dozens of villages in the Mato Grosso of any chance for a small clinic, but it does not undermine the ability of people to care for themselves. Public support for a nationwide addiction to therapeutic relationships is pathogenic on a much deeper level, but this is usually not recognized. More health damages are caused by the belief of people that they cannot cope with illness without modern medicines than by doctors who foist their ministrations on patients.

Handbooks that deal with iatrogenesis concentrate overwhelmingly on the clinical variety. They recognize the doctor as a pathogen alongside resistant strains of bacteria, hospital corridors, poisonous pesticides, and badly engineered cars. It has not yet been recognized that the proliferation of medical institutions, no matter how safe and well engineered, unleashes a social pathogenic process. Overmedicalization changes adaptive ability into passive medical consumer discipline.

An analogy with the transportation system might clarify the dangers of overmedicalization so clearly reflected in the budget. No doubt cars are dangerous. They kill more than one-quarter of those in the US who die between childhood and the age of 60. If drivers were better educated, laws better enforced, vehicles better constructed and roads better planned, fewer people would die in cars. The same could be said about doctors: they are dangerous. If doctors were differently organized, if patients were better educated by them, for them and with them, if the hospital system were better planned, the accidents which now result from contact between people and the medical system could be reduced.

But the reason why high speed transportation now produces accidents lies deeper than the kind of cars people drive, and even deeper than the decision to depend for locomotion mainly on cars, rather than on buses or trains. It is not the choice of the vehicle but the decision to organize modern society around high-speed transportation which turns locomotion from a healthy activity into a health-denying form of consumption. No matter how well constructed the vehicle, or how well programmed the landing, at some point of acceleration the rhythm of the machine will destroy the rhythm of life. At a given point of acceleration, things and the people strapped to them begin to move in an engineered time-space continuum which is biologically antithetical to that for which the human animal has evolved. The more hurried a crowded world becomes, the higher must be the incidence of trauma which results from unhealthy encounters, violent separation, and enervating restraint. Vehicles become unhealthy when they compel people to speed. It is not their specific construction or the choice of a private car over a public bus that makes transportation unhealthy, but their speed itself and the intensity of their use.

This health-denying aspect of the speedup in traffic is generally not taken into account when the health dangers of traffic are discussed. In a bibliography of traffic medicine[65] listing 6,000 items, I did not find one paper dealing with the impact of acceleration on health. The same applies to bibliographies on iatrogenic diseases. More than one thousand items are listed each year under this title in the standard Index Medicus. People with a penchant for the grotesque might enjoy reading the gory details, but they will not find any mention of the health-denying effect of a growing dependence on medical care.

The proliferation of medical agents is health-denying not only or primarily because of the specific functional or organic lesions produced by doctors, but because they produce dependence. And this dependence on professional intervention tends to impoverish the non-medical health-supporting and healing aspects of the social and physical environments, and tends to decrease the organic and psychological coping ability of ordinary people. Modern apartments are increasingly unfit for the sick, and family members are often frightened by the idea that they might be asked to care for their own sick.[66]

[64]Fuchs, Victor. *The contribution of health services to the American economy*, in: Milbank Memorial Fund Quarterly. vol XLIV, 4 part II, October 1966, pp 65–103.

[65]Hoffman, Herman. *Ausgerrählte internationale Bibliographie 1952–1963 zur Verkehrsmedizin.* München, Lehman 1967.

[66]The medicalization of care has a profound impact on the structure of contemporary man-made space. The empire of the health professions is cemented into modern society. The forthcoming book by Roslyn Lindheim (Calder and Boyars, 1975) will demonstrate this. For the moment consult: Lindheim, Roslyn. *New environment for births.* Manuscript at CIDOC, 1971. *Humanization of medical care: an architect's view.* Third draft. 1, April 1974. *Environments for the elderly. Future-oriented design for living?* 20, February 1974. mimeo,