

**PHYSICIANS, BIOLOGISTS, AND THE FUTURE  
OF MAN**

*To perpetuate the memory of Professor Jacques Parisot, President of the Ninth World Health Assembly, Mme Parisot established a foundation, administered by the Director-General of WHO, to provide for lectures on scientific subjects at World Health Assemblies. The text of the sixth lecture, which was delivered in Geneva on the occasion of the twenty-seventh World Health Assembly, was published in WHO Chronicle (Geneva 1974, No. 8). In view of the importance of the subject dealt with by Professor Jean Hamburger, we think the conclusions will be of interest to readers.*

... The collective behaviour of the animal species is determined at birth and the instructions remain unchallenged. This can reasonably be explained by natural selection, since the organization of the community of individuals is as important for the survival of the species as the internal organization of each individual. This sort of enslavement to the community transmitted by heredity is a fundamental fact of biology that must be clearly grasped before we come back to the case of the only animal that apparently constitutes an exception to these rules: man.

In man, too, there is of course hereditary transmission of many instincts that play a role in communal life: it would be easy to demonstrate that men are far less free in their social behaviour than they think. But, by a phenomenon that is unique in the animal kingdom, from the vast depths of immutable instinct wells up something strange and unpredictable—a conscious and lively intelligence. The most obvious consequence is increased liberty of action and a greater degree of anarchy. As a result, the collective organization of human society, rather than being chemically determined in advance, is at the mercy of conflicting

ideas and interests. Each individual has his own views, every country its currents of opinion. The natural rules for protection of the species are thus flouted. At the very time when men are in most urgent need of directives, these can no longer be found in genetic imperatives that have slowly matured over millions of years as in the case of all other living species. We have transformed our environment, quadrupled our lifespan, multiplied our population twentyfold, increased our power of destruction immeasurably, learnt to communicate and move in a very short time from one end of the earth to the other, and here we are with our backs to the wall, alone, with nothing but our intelligence to help us find the solution to the urgent problems created by all these swift and revolutionary changes.

More serious still, the problems that man poses are far more complex than those raised by animal communities. The organization of the latter clearly has only one objective, the survival of the species; it is manifestly unconcerned with respect for the individual: when there is a queen too many in a society of bees, she is promptly put to death. The concepts that give man his dignity—respect for personality, the idea of combating disease and death, the pursuit of wellbeing and justice—create for him additional constraints which complicate the problem to be solved. There is nothing of this kind in other animal species: indeed, to our anthropomorphic eyes their systems of protection seem to be founded on injustice, cruelty, and contempt for the isolated individual. Can it be that man's intelligence, with the wonders and dangers it engenders, is analogous to what Fraser Darling jocularly calls "Irish Elkism" in allusion to the fate of the Irish elks whose antlers became so hypertrophied that in the end they hampered the animal in its movements and brought the race to extinction? That is the question now confronting us.

**Solutions.** — Let it be clearly understood, in the first place, that we cannot turn the clock back. The anti-scientific movement that has been emerging in recent years, the criticisms that have begun to be voiced against the very principle of progress in medicine, the nostalgia for a world without discoveries and without development of knowledge, the idea that progress must be suspended because it is progress that has created today's problems, are unjust and unrealistic. Unjust, because the programme chosen by mankind calls for the alleviation of suffering and the promotion of wellbeing, and it is undeniable that the progress of medicine and science has been in harmony with that aim: man cannot go back to cruelty and disease. Unrealistic, because we cannot pretend to forget what we have

learnt; we cannot escape our destiny, shaped as it is by the desire for knowledge and the power to acquire it.

On the contrary, what we probably need is vastly more research, information, and thought, to overcome the problems that are facing us.

If we wish both to prevent the human species from becoming extinct like so many other animal species (more than half of all species, according to certain specialists) and at the same time to preserve the concern for justice, wellbeing, and respect for the individual that ennobles and distinguishes humanity, then clearly we must get seriously to work and carry out a methodical search for solutions or acceptable compromises.

To confine ourselves to the sphere of biology and medicine, solutions do exist: solutions to the problems of overpopulation, thanks to birth control; solutions to the dangers threatening the genetic value of future man, through the creation of more genetic counselling agencies; solutions to ecological problems, through the methodical analysis of the repercussions of each of our actions on our environment.

I firmly believe that, given the extraordinary talents of the members of the human community, most of the problems I have adumbrated could be solved if a sufficient research effort were made.

**Difficulties of application.** — Misgivings return, however, when we begin to consider how, once acceptable solutions have been found, we can secure their acceptance by all countries and peoples alike. Man's very nature makes him somewhat reluctant to accept reasonable suggestions: reason is patently, in our species, a less powerful motive force than desire or passion. Unanimity is a phenomenon in contradiction with the biological and mental laws by which man is governed. Perhaps, indeed, it is our lack of submissiveness, our personal and national egocentricity, our tendency to reject other people's ideas, that have made it possible for our knowledge to advance. Every discovery, to quote the philosopher Bachelard, is a rejection of orthodox ideas. But this incessant calling-in-question is also a serious obstacle when it comes to getting people to agree on concrete solutions. Do you know the history of whale hunting? Confronted with the progressive annihilation of that species, the International Whaling Commission instructed its Scientific Committee to draw up a plan. After protracted studies and discussions, the experts' plan was ready by 1959. Since then its implementation has been postponed from one year to the next. For the plan to be accepted by the Plenary Commission, a two-thirds majority was required. After a delay of 13 years, voting finally took place last year, and there was one vote too

few for the decision to be adopted. And specialists say that today the slaughter of this marine mammal has passed the critical threshold beyond which the species is doomed.

Every day, even within a limited assemblage of human beings, such as a nation, we see individuals or groups rise up in mutual opposition. And how much greater is the contentiousness that a country shows towards others when prestige or the immediate national interest is at stake. Discord among men and creative intelligence are biologically linked, as the reverse of a coin is linked to its obverse.

The problem is thus in the last analysis political: how can a group of experts that has worked out a reasonable solution compatible both with the survival of the human species and with respect for man's desires and moral imperatives obtain general acceptance of what it proposes? Neither the biologist nor the physician can help the politician to settle this vital question. The biologist can only, as an observer, note the fact that men are mobilized into united action only when subjected to (I almost said conditioned by) a barrage of information in which appeals to the emotions and passions are mingled with rational data. At the same time, the physician cannot but be alarmed by the stultifying effects of such conditioning. As a defender of the human body against disease, he is a natural advocate of the human person. He therefore fears any solution that would protect the human community without also protecting the uniqueness of the individual. And he is afraid lest, in a magnificently well organized world of well protected human robots, something essential should be lost.

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