

Ethics and the Spirituality of Health

AN INVITATION-ONLY SEMINAR HELD AT THE PALAZZO DELLA CANCELLERIA, ROME, UNDER THE PATRONAGE OF THE PONTIFICAL COUNCIL FOR HEALTH CARE WORKERS OCTOBER 19 – 21, 2009

Our concern for health is as old as mankind and in ancient civilisations it was always linked to the multiple relationship that human beings have with their society and their environment. As such, health is a complex issue, deeply rooted in every single individual and involving at the same time his or her body, mind and soul, something that is distant from the reductionist definition of the World Health Organisation: 'A state of complete physical, mental and social well-being and not only the absence of disease or infirmity', a statement which totally neglects the fundamental emotional, psychological and spiritual requirements of every human creature. In this context, the duty of medicine is not only to 'cure' and restore the sick person to his or her previous health but also to secure that this 'healing process' brings him or her hope and serenity and takes care of his or her overall needs as a living, responsible and sensitive creature. Both His Eminence Cardinal Poupard and His Excellency Archbishop Zimowski stressed this major issue in their opening statements and showed that 'the health of the organism' cannot be severed from its ethical and spiritual context. It is the responsibility of man to respect the wellbeing of his brothers as well as to safeguard the balance of his own body which he has received as a gift from God and which he has the duty to maintain for himself and also for those who gave it to him and those to whom he will transfer the mysterious spark of life. To that end, medicine will give him support but as long as it is not restricted to the eradication of physical illness itself but also addresses the patient in a overall way giving him or her relief and serving at

one and the same time his or her basic fundamentals – his or her body, mind and soul. This is precisely the focus of this seminar: to try to understand what health means on an individual and collective basis, to explore its basic requirements in the light of traditions and cultures, and to see how different therapeutic strategies may combine together in a holistic way. In that process, pure 'hard' rationalistic enterprises should merge harmoniously with more 'soft' subtle therapies in a complementary process which pools together their intrinsic powers, acknowledging sometimes the undefined strength of traditional practices whose efficacy has been demonstrated by long-term clinical experience. In other terms, our purpose has been to address complementary therapeutic modes and not to weigh the merits and risks of alternative routes.

What Does Health Mean in the Human Brain?

How can a philosopher understand health as a universal concept? On the outer reaches of this seminar, Professor Jean Burgos questioned our views on *The Imagination of Health*.

In our modern societies, health is perceived, first, as a negative concept, indeed, a state of non-somatic or psychological imbalance, a non-illness status. However, in many different mythologies, health appears as a positive issue, a natural component of the harmonious order of the original world. In several archaic societies, illness is understood as a fracture of a pristine harmony that has to be restored. Moreover, in some of them, health is not only a mark of the 'vital force' but surges up from the depths of the hu-

man being to enter into an intimate relationship with the outside world.

The potentials of health, indeed, the virtual power it has to develop by itself before being challenged by illness, seem to invite us to consider health through the very routes these potentials follow: the imagination.

The imagination, this cross-road of individual pulses and outside pressures, which is always under constant renewal, provides us, at all times, with information on what is bound to come, giving us the choice to make use of it or not. It plays there a role of equilibrium between the living creature and its environment; hence a harmonisation of what, indeed, supports health.

The routes of the imagination do not drive us far away from those of Hippocrates who claimed that health rested on balance and harmony, both of which derived from a continuous adaptation of man to his surroundings on the basis of what was going to occur. Hence, health is not only a state of equilibrium within a given environment but the implementation by every individual of his or her human nature which is always in motion within the surroundings that he or she has to deal with.

This shows that health is not a neutral state but one which has to be continuously conquered and controlled, a baseline pattern that must always be reinvented. This means that since man is not constrained within a given physical and psychological organism he must not only secure his own status but be ready to challenge what is occurring and constantly develop new hierarchal operating modes. Thanks to health, we meet the world of values that man, whoever he is, is compelled to

overcome, one way or another, to secure his future. We meet again, there, the imagination, this permanently new driving force which pushes us ahead and constantly offers some additional features to our being human that we have to capture in order to make the best use of them.

The significance of health is, then, an assessment of values, all in direct connection with our human needs: the somatic, the psychological but also the spiritual. Therefore, it appears that the imagination has the power to experience these issues in a privileged way since it always drives us to challenge new values in their very process of implementation.

Health as a Duty to Care: its Moral and Political Implications

In the next section of the meeting, *Professor de Broucker and Director Bouvier* discussed the different sensibilities of health in terms of its moral and socio-political implications.

Let us consider, first, what is really meant by the 'World Health Organisation' when it states that health is a state of wellbeing. This is certainly an ambiguous issue since it implies at one and the same time physical, psychological and social values which, obviously, are interacting and evolved in historical time. Social precariousness, for instance, has a major impact and may induce many adverse reactions. Thus, all the structures of the 'medical chain' are involved: physicians, nurses, supporting staff ... and they need to be trained accordingly in order to respect the infirm person, to try to eradicate fear and to give hope, irrespective of religious and political diversities or economical constraints. A careful handling of man's intrinsic frailty is here the central issue and it should not be addressed only in a legislative way but should be part of a previously established educational programme. This, indeed, is relevant to bioethics and underlines our individual and col-

lective responsibility towards all humanity from conception to the grave.

In this context, *Professor de Broucker* considers six different fields: medical assistance and procreation; the status of the embryo; predictive medicine; organ and tissue grafts; biomedical research; and the end of life.

Procreation by artificial insemination is a routine practice but it should follow a certain number of moral rules and, in particular, secure that the resulting child obtains a stable place within a respectable family made up of a father and a mother.

Along those lines, the 'legal' and moral status of embryos is equally of the utmost importance. They are living organisms, God's creatures, who should not fall into irrelevant scientific programmes or just be eradicated because they are supernumerary.

Closely linked to the above, predictive medicine should not turn into an eugenic issue which eliminates 'imperfect' embryos and ends up as a wild selection of would-be ideal human beings.

The same duty to care applies to tissue and organ banks as well as to the removal of organs from fresh cadavers and even from living donors. This is a highly sensitive case in which the unbiased agreement of the donor should be formally given and where no financial dimension can be considered.

Biomedical research is equally a matter of vigilance and concern if it does not respect four basic ethical principles: autonomy, dignity, integrity and the understanding of potential vulnerability.

Palliative care is also discussed by *Professor de Broucker* as a most important duty of our society towards those who are coming to the end of their lives in dependency and often in pain and distress. In this particular case it is an absolute ethical prerequisite that the whole supporting team helps and fosters a dignified relationship with patients even if all communications are severed.

In conclusion, in our ethical approach towards health we meet four major challenging issues: maintaining humility and vigilance in the face of the obvious shortcomings of our present medical knowledge; understanding the limits and constraints of physical, psychological, moral and spiritual suffering; respecting every human being whatever his or her condition may be; and taking care of other people and being receptive to their requests and needs.

Humanitarian Action in Medical Care

As a representative of the International Red Cross Committee, *Dr. Paul Bouvier* then addressed humanitarian duties and related humanitarian medical action.

In June 1859 a young citizen of Geneva, Henry Dunant, discovered the horrors of the Battle of Solferino: 6,000 dead but also 40,000 injured soldiers to whom he tried to bring relief and help. This dramatic event led him to create the 'International Red Cross' which was the origin, in 1864, of the 'Geneva Convention for the improvement of the fate of injured and ill members of armed forces during the course of war', a Convention which received its final statutes in 1949 when it also protected prisoners and civilians during armed conflicts.

In this enterprise, Dunant based his action on 'humanitarian duty', a moral obligation which goes beyond nations, religions and cultures. Today, this is part of international law and the International Red Cross Committee is accountable for its implementation. In this context, the CICR is involved in the field that has just been addressed above, namely bioethics, and thus follows the same rules: autonomy, benevolence, not doing harm and justice. As such, it becomes clear that when a human being is in urgent need a physician or medical assistant has the moral duty to become involved and assist that person to the best of his or her capac-

ities if he or she is not himself or herself at risk. This is, indeed, the very basis of what we can call humanitarian duty which, in turn, sets in motion humanitarian action. This is not a mere demonstration of altruism, which is more something that characterises the so-called humanitarian organisations. Unfortunately, their actions may sometimes be counterproductive since they come to be involved in contestable political choices.

This raises the question of the limits which can be given

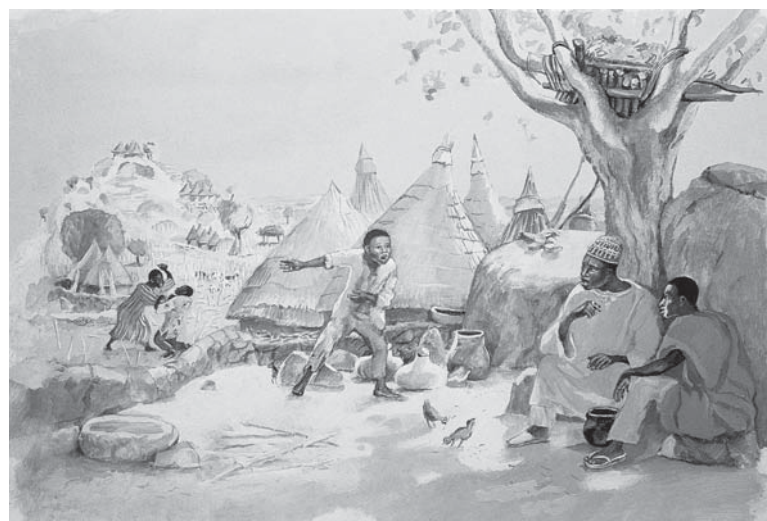
ther, believes that the horizon of ethics is sociality and that our moral rules apply globally to our society. Terestchenko himself does not consider altruism as a heroic or sacrificial move but just a normal human reaction: 'I do what I have to do'.

Since Henry Dunant it has become clear that humanitarian action is a compulsory move which is in fact realistic human behaviour in the face of violence and should receive acknowledgement. Along these lines, the humanitarian action

same situation prevails in Black Africa where ethnomedicine plays a central role in the everyday lives of traditional populations, even in our time. Through dialogue, gestures, dance and ritual songs, it addresses more the patient himself or herself than his or her illness, since he or she is considered, first and foremost, as a social case linked to the life of the whole community which is in partnership with him or her. Most remedies are of plant origin, sometimes fungi, but their 'efficacy' depends entirely on the way they are administered and on the involvement of the relatives and friends of the patient under the strict control of the witchdoctor.

An almost identical situation can be found in Central Asia and in the Pacific except that here religious beliefs do not belong to animism but are essentially derived from Buddhism or Hinduism. However, the same 'approach' can be found: illness is a mark of disharmony, a failure of the mind and soul which impacts on the body as a whole and which can be identified by a careful analysis of the 'body's energy fields' as is done with acupuncture.

For a long time these traditional medicines have been studied by renowned scientists and philosophers. Magendie, Claude Bernard, Louis Pasteur, and more recently Louis de Braghiaffine, Prigogine and Raymond Ruyer, *inter alia*, have tried to understand the mechanisms which support these therapies. It has been suggested that human health and behaviour could be triggered by the evolution of the universe itself which could be seen as the bearer of a cosmic consciousness of a spiritual nature through quantum physics... However, for the practitioners of traditional medicine, the fate of the patient is in the hands of 'God' or of an undefined pantheon of divinities, who are the only ones who know the past, the present and the future, and who hold sway over the Living, the Real and the Absolute.



to this Samaritanism. How far can our moral duty lead us? Can we speak of a minimalist ethic based upon three principles: no personal interest, not doing harm to others and equal care for all? Or do we have, indeed, a duty to help which whatever the case is mitigated by the fact that we have no right to interfere if we are not requested to do so?

From here Dr. Bouvier analyses the concept of altruism and discusses the positions of some major writers and philosophers on this issue. From the Chinese philosopher of the fourth century BC, Mencius, to Jean-Jacques Rousseau, to be 'human' is nothing else but a natural attitude. Immanuel Kant challenged that idea and felt that the universal rule is to base every moral move on reason and not on compassion. For Levinas we have a responsibility towards the 'other' who 'captures' our liberty and Ricoeur, going somewhat fur-

of assistance and protection is an integral part of our own humanity.

Health Care in Traditions and Cultures

In history, health care has been of concern for human societies and their strategies in this field have substantially varied from one continent to the other. Quite often, as *Professor Moha Jana* explains, shamans held the 'secrets' to healing injuries or curing illnesses and their 'therapies' were a mixture of witchcraft and the administration of natural products in which herbs and animal extracts played a dominant role.

In Muslim North Africa illness has always been seen as both a spiritual and physical disorder and the intake of remedies should be accompanied by chanting and prayers under the guidance of experienced traditional healers. The

Ayurveda: an Ultimate Gift to Health Care beyond Medicine

Amongst the diversified traditions which support ancient therapies a special place should be given to *Ayurveda*, a 4,000 year-old Indian philosophy and culture which proposes another way of understanding and implementing life. For *Professor Dwivedi Manjari* from the holy City of Bénarès, *Ayurveda* is, indeed, an ultimate gift to health care which goes far beyond medicine.

In the Hindu perspective a holistic vision of health care implies a thorough involvement in the realm of spirituality, man's ultimate nature and meaning not only as an earthly biological organism but as an immaterial entity, beyond time, a part of a macrocosm-microcosm continuum. Actually, every individual is an epitome of the universe and shares the same components, as is stated in the theory of Pancha Mahabhoota. Each man is spread within the entire universe and the entire universe is equally spread within him, giving him both a transcendental and a worldly vision. Thus, to understand life, health and illness we must accept that our own body is not a static finished product but is in a continuous state of dynamic balance. *Ayurveda* holds that there are four interactive compounds in man: a structural basis; the body (*Shareera*), the sensory organs, including the regulatory components (*Indriya*); the intellect, including the cellular intellect (*Sava*); and the soul, with its little known 'biological expression' (*Atma*).

Whilst the gross body disintegrates at death, the 'subtle body' (or seed) persists and becomes the accession for the sprouting of a new gross body. The soul, for Hindus, is eternal and may live many lifetimes, sometimes as a human, sometimes as an animal, sometimes as a plant, all seeds having the chance to experience life in different forms until they reach emancipation (*moksha*) when they are no longer accountable for their karma.

Then they realise their oneness with the Absolute and merge with God. To quote the *Katha Upanishad*: 'The wise one is not born, neither does he die; he came not from anywhere, neither is he anyone. He is unborn, everlasting, ancient and semi-eternal, he is not slain in the slaying of the body'.

To study the shared laws which govern the universe, *Ayurveda* postulates the theory of primordial elements and identifies the three *Doshas* which protect the body when they are normal and make it sick or dead when they are vitiated. *Vitta*, *Pitta* and *Kapha* are responsible for our relationship with the cosmos and ensure that our physical and mental status is brought into complete harmony with the cosmic rhythm, involving our four basic elements: the body, the senses, the mind and the soul. In doing this our life should be beneficial to society and help bring good health to a large number of people for a long time as an ultimate gift. To that end, we should take advantage of the development of science and with the weapon of science and spirituality we should help all human beings to become and stay healthy and happy thanks to our knowledge (*veda*) of the four pillars of life: the body, the senses, the mind and the soul (*Ayur*).

Homeopathy: a Therapy that has Existed for Two Centuries

The subsequent section of the seminar was devoted to a comprehensive analysis of a therapy that has existed for two centuries, namely homeopathy, which provides a good example of the way scientific basic and clinical research can be associated with a global assessment of the physical, psychological and spiritual balance of the patient. In a way, homeopathy is customised medicine based upon a holistic approach to the ill person and, as such, it shares much in common with *Ayurveda* and the traditional ethno-medicines following, however, a rational route.

Its foundation

It was at the end of the eighteenth century that the fundamentals of homeopathy were established by the German physician, Samuel Hahnemann. In her paper *Dr. Corine Mure* showed that the official medicine of the time, though still in line with basic Hippocratic principles, which had been re-activated by Paracelsus, was still dependent upon conventional practices which had not evolved substantially since the Middle Ages. However, in the early eighteenth century, at the peak of the 'Enlightenment', central European universities began to be concerned with two major issues: what does the word 'illness' really mean? What could the properties of the different remedies and their mode of action on human beings be? Dr. Van Swieten, in Vienna, leaving pure theoretical considerations to one side, fostered direct studies at the patient's bedside, and was followed by Antoine Stoerck and Von Quarin. As a young pupil at that medical school, Samuel Hahnemann privileged a thorough experimental approach to understanding the behaviour of remedies.



While translating *A Treatise of Materia Medica* by Dr. William Cullen, Hahnemann doubted Cullen's assertions that chewing Peruvian bark (quinine, *cinchona pubescens*; previously called 'china') cured malaria because of its astringent (bitter) properties.

Hahnemann, not accepting this explanation, decided to take small doses of china over several days to observe its effects. In this first 'proving' experiment, Hahnemann detected symptoms broadly similar to those of malaria, including spasms and fever. He thus established anew the validity of an old therapeutic maxim: 'like cures like' or 'let likes cure likes' ('*similia similibus curentur*'). This 'law of similars' is the substantial characteristic of homeopathy. Hahnemann reasoned that healing proceeds through similarity and that treatment must be able to produce symptoms in healthy individuals similar to those of the illness being treated. In addition, he presumed that by inducing an illness through the use of drugs, the artificially induced symptoms empowered the so-called vital force to neutralise and expel the original malady. Furthermore, he detected that the reaction of the illness was stronger but shorter than the original ailment. This was his first documented proof. He then undertook further drug tests with his family and friends using plants, minerals and animal products. 'Day after day, he tested medicines on himself and others. He collected histories of cases of poisoning. His purpose was to establish a physiological doctrine of medical remedies, free from all suppositions, and based solely on experiments'.

Later on Hahnemann named his method 'homeopathy' (from the Greek *hómoios* ὅμοιος 'like' and *pathos* πάθος 'suffering'). Homeopathy is defined by the 'law of similars'; by tests on healthy people; by the administration of single remedies; and is defined as a pharmaceutical method.

In order to conserve pharmaceutical properties while removing toxic properties simultaneously, Hahnemann developed a process called 'dynamisation' or 'potentisation', whereby the remedy is diluted with alcohol or distilled water and then vigorously shaken by ten hard blows against an elastic body (Hahnemann shook

against the leather binding of a Bible) in a process called 'succussion'. While Hahnemann recommended remedies which produce symptoms similar to those of the illness being treated, he believed that concentrated doses would intensify the symptoms and exacerbate the condition. Therefore, he defined the dilution of remedies. Hahnemann believed that the process of succussion activated the vital energy of the diluted substance. Insoluble solids, such as quartz or oyster shell, were diluted by grinding them with lactose ('trituration'), a new method developed by Hahnemann and unknown to chemistry up to that point.

What is the outstanding feature of homeopathy? The first paragraph 'The physician's high and only mission is to restore the sick to health, to cure, as it is termed' in Hahnemann's *Organon*, the book establishing the principles of homeopathy, describes the healing of sick humans as being at the centre of attention of a homeopathic physician as opposed to the treatment of a diagnosed illness in mainstream medicine. While this difference appears to be negligible at first sight, its significance becomes clear when the illness appears: when becoming sick, the whole body can be affected even when the symptom is localised. Homeopathy acts to restore physical health. The work of a homeopath is comparable to an art restorer: a restorer is obliged to restore a painting or sculpture to its original state as far as possible; in a similar way, a homeopath is bound to restore the patient's original condition.

Homeopathy: a holistic concept

This 'holistic' approach is one of the most interesting features of homeopathy and *Dr. Michel Van Wassenhoven* developed this concept which has been labelled in the USA as 'Mind-Body Medicine' or 'Mind-Body Connection'. Basically, it rests on three princi-

ples which cannot be severed: fostering a multidisciplinary approach; giving educated and unbiased information to the patient; and integrating his or her 'philosophy' into the selection of the therapy. Whilst the first two requirements look rather easy to fulfil, it is far more difficult to deal with the expectations, hopes, and social and philosophical feelings of the patient to choose the therapeutic line. This implies that an open and free discussion should be held between the patient and his or her physician. It also requires that the doctor has a global view of the evolution of his or her patient and takes due account of the totality of symptoms as well as of the universality of clinical signs. For Hahnemann, this was no more than a permanent assessment of what he called the 'vital energy' which drives the unity between body and mind. There is no doubt that this thinking is in line with the teaching of St. Thomas Aquinas for whom man is a body and the soul is his vital principle. Whilst the body is a material individual entity, the soul can be divided into three different parts: the negative, the sensitive and the intellectual, while remaining a unique feature. Here we meet Aristotle and *Ayurveda*.

Under these conditions health cannot be conceived unless it includes social well-being, positive development and the possibility of attaining happiness. It is definitely from this angle that current homeopathic classic practice should be conceived and assessed. We enter here the proof of what has been called 'evidence-based homeopathy'. Dr. Van Wassenhoven cites the different standards of evidence in decreasing order: the existence of meta-analyses and/or systematic positive reviews in the literature in the field; several controlled randomised positive clinical trials; one controlled randomised positive clinical trial; multiple positive cohort studies; a single positive cohort study; and expert opinions, most of them applied to 'tests' carried out on healthy volunteers.

On this basis it appears today that there are enough coherent reports, both in fundamental and in clinical research, to promote the use of homeopathy in public health, and this is precisely what was addressed by the seminar in the subsequent sections.

Scientific evidence

A redundant issue in the assessment of homeopathy by classic academics, especially in the field of the so-called 'hard sciences', is the fact that in high and ultra-high dilutions there are no longer traces of the original chemical. Hence they claim that these different solutions are, indeed, all the same and no more than the mere solvent itself. Actually, this radical assumption has proved to be wrong, at least at the light of two centuries of careful clinical observations which have demonstrated that high dilutions are not only active in therapeutics but also that they have distinct personalities, properties which could not be found in the solvent used for their preparation. Quite obviously, this problem has been a clear challenge to all those researchers in physics, chemistry and the material sciences who have attempted to demonstrate the specificity of homeopathic preparations and to understand on which criteria homeopathy could be based.

Water: a strange abnormal chemical

The whole story starts with water, a universal chemical with a most simple formula but also one that has abnormal properties. In the liquid state, water molecules attract each other and erect all kinds of 3-D structures: dimers, oligomers and even very complex polymers, because of their ability to build strong links between the tip of their two hydrogen arms and the oxygen nucleus of their neighbours, thanks to what has been called 'hydrogen bonds'. However, these connections are in permanent motion and last sometimes for

no more than a few tens of pico-seconds although they are permanently renewed. In other words, water, in the liquid state, is not a homogeneous fluid but a dynamic assemblage of different interactive oligomers, polymers and clusters in permanent motion and in full dependence upon temperature, pressure, and magnetic and electric fields.

The introduction of quantum mechanics into research on the liquid state even led some scientists (Preparata, Del Giudice...) to claim that water contains 'coherent ordered domains', displaying an almost perfect diamagnetism, whilst the whole mass could still be criss-crossed by magnetic flux tubes. According to *Professor Resch* most of these odd properties can be derived from mere observation.

The first observation is that water is the only known substance that is permanently in circulation.

The second observation concerns the fact that there is no known substance in which no traces of water can be found.

The third observation is the fact that in so-called non-aqueous solutions water can never be completely got rid of: a minimum concentration of water in the order 10-6 mol/L is always maintained.

The fourth observation is that water is a '*condition sine qua non*' of life.

A fifth observation that must be made here is the undeniable fact that water is the most diversely structured and the most many-side reacting liquid.

A sixth observation concerns the fact that we can never get 100 per cent pure water since we can never get rid of dissolved substances.

Actually, there are almost no limits to the potential structural features which can result from water-molecule association. There is, however, a major constraint: they live for a very short time, some tens of pico-seconds and cannot be seen as permanent elements, unless on a purely statistical basis, as has already been mentioned.

The different physical methods by which to assess high dilutions

According to *Professor Rey* the assessment of water structures by physical means is, obviously, of concern for both homeopaths and hard-line scientists who try to demonstrate that ultra-dilute (ultra-molecular) solutions do have their own personality. Indeed, the main points which needed to be addressed are: is an ultra-molecular dilution (over the Avogadro number: CH 12 or more) different from the solvent with which it has been prepared?; are two different high dilutions made out of different source material susceptible to be discriminated between themselves?; and are the successive dilutions, in a rising order, of the same material, susceptible to identification even when they are in the range of high potencies?

To this end, the main techniques of physical-chemical analysis have been applied, understanding that this could only be done if there is a strict and standardised control of their application. Besides the obvious role of contaminants of all kinds (solids, liquids, atmospheric, mineral, organic or even living organisms...), great care has to be paid to the operating conditions: temperature, light, hygrometry, pressure, interfering strong ambient electric or magnetic fields, the proximity of radiation sources... since all techniques which could be applied are really working at the limits, on the knife's edge!... Moreover, it has also been shown that most dilutions are ageing and that their 'structure' and biological performances evolve with storage time even if they are kept under strict stable conditions.

For this reason, unfortunately, many valuable experimental attempts had to be disregarded because they were not carried out under reliable, reproducible conditions. This is why, in the following listing, we have only considered that research work which did fulfil these stringent requirements:

- Nuclear Paramagnetic Resonance - NMR.

- Fourier Transform Infra-Red Spectroscopy – FTIR.
- UV visible Spectrometry.
- Raman Spectroscopy.
- Dynamic Electrophotonic Capture.
- Calorimetric and Electric Measurement.
- Optical Methods.

All these techniques give interesting results but sometimes at the limit of sensitivity. This is why Professor Rey developed a rather new investigation method in this field: thermoluminescence.

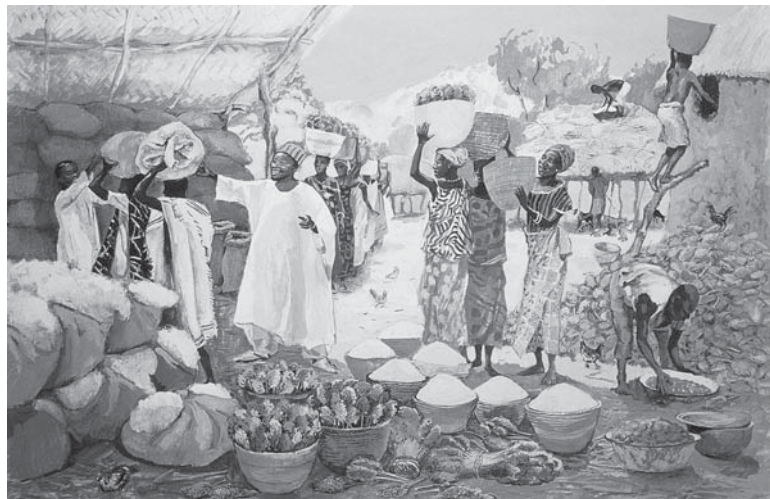
The basic idea is to try to avoid dealing directly with ever-moving liquid solutions by turning them into a stable solid thanks to low-temperature freezing, the working hypothesis being that, should a given structural heterogeneity be present in the initial liquid state, it would be transferred to a corresponding set of ‘defects’ within the resulting solid. To investigate, in turn, this heterogeneous solid matrix we achieve its activation by irradiation at liquid nitrogen temperature (77K) inducing there the formation, within the solid matrix, of metastable radicals, electrons and holes positioned at different energy levels, referred to as ‘traps’, and where the ‘defects’ in the ice crystalline network play a dominant role. In this state the traps remain stable at 77K but, if thermal energy is progressively fed in by controlled re-warming, these traps empty, one after the other, as a result of successive recombinations, and release their stored energy in the form of light, hence the name of low-temperature thermoluminescence. It was hoped, therefore, that the resulting glow would be representative of the structure of the irradiated frozen matrix, which, in turn, should be a mirror image, or at least be closely related to, the initial structural state of the original liquid.

A great number of successive experiments showed, indeed, that the different dilutions presented specific glow curves which were not similar to those of the solvent alone.

On the other hand it was

shown that these glow curves were of a complex nature and could be ‘decomposed’ into a set of different individual units with well defined thermodynamic parameters. In other words, each thermoluminescence recording gave rise to a specific finger-print which could be correlated to the initial starting dilution. This confirms that investigations performed on ultra-molecular dilutions even beyond the Avogadro number by different physical methods demonstrate that they are different from the pure solvent and specific to the precise chemicals dissolved at the initial state of their preparation. Indeed, each

previously seen as in conflict, is facilitated because over the last few decades homeopathy has started to use the methods of current medical science and a substantial number of studies – at molecular, cellular and clinical levels – are available. An experimental approach may help to test under controlled conditions the main principles of homeopathy such as the ‘similarity’ of drug action and the mechanisms of action of diluted/succussed (‘dynamised’) drug solutions. A search of the scientific literature shows that there are a number of cellular and animal models of, in particular, ‘in vitro’ studies carried out on



dilution has its own personality and can be identified by its own ‘finger-print’.

The biological evidence

Research in homeopathy has not been restricted to the physical-chemical fields and a large number of interesting studies have been carried out in the biological field. *Professor Paolo Bellavite* presented some of the main developments in this area.

Homeopathy was born as an experimental discipline, as can be seen from the enormous amount of clinical data collected over more than two centuries. However, the medical tradition of homeopathy has been separated from that of conventional science for a long time. Today, an osmotic process between disciplines,

basophils, lymphocytes, granulocytes and fibroblasts. The most consistent body of evidence concerns some fifteen scientific papers, published by independent laboratories, describing the statistically significant effect of ultra-high dilutions of histamine on human basophils. In experimental animals, most results relate to immunostimulation by ultra-low doses of antigens, the regulation of acute or chronic inflammatory processes, and behavioural changes (decrease of anxiety-like symptoms) induced by homeopathic treatment. The models utilised by different research groups are heterogeneous and differ as far as the test medicines, the dilutions and the outcomes are concerned. The evidence that emerges from animal models supports the traditional ‘similar’ rule according to which

ultra-low doses of compounds, which in high doses are pathogenic, may have paradoxically a protective or curative effect. Thanks to its ancient tradition and holistic approach, coupled with these advancements in basic science and the development of rigorous clinical studies, homeopathy is actively participating in the integration of the systemic, humanistic and scientific aspects of medicine.

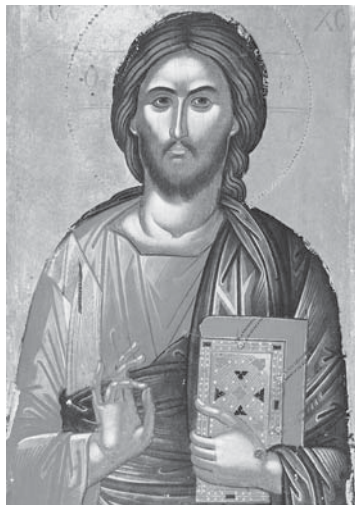
The clinical evidence Hormesis

Obviously for public health the most important experimental results are those that deal with clinical testing and one of the first issues to be addressed was the curious two stage behaviour of remedies according to their concentration, the so-termed 'hormesis', which was explained by *Dr. Simonetta Bernardini* and could be a central concept in homeopathy.

In Western medical thought therapeutic models may use either low-dose or high dose drug prescriptions. The alternative choice finds its roots in the feeling of the physician about the possibility of the self-healing of a sick organism. If a positive feeling exists, the therapy is addressed to inducing and to favouring an endogenous healing process by using some subtle interferences (e.g. homeopathy). In contrast, if the self-healing process is believed not to be sufficient, the adopted therapeutic model may ignore it and then, in principle, the appropriate therapy is aimed at independently removing the illness (e.g. allopathy). High-dose drugs are then used which act as inhibitors (antibiotic, anti-inflammatory, anti-fever etc.). In this case the therapeutic action often involves strong perturbations.

These two therapeutic approaches are basically different, since they find their roots in two different paradigms, i.e. biological recovery and pharmacologic recovery, respectively. Notwithstanding this consideration, they are not

mutually exclusive from the perspective of the development of so-called 'integrated medicine', which is represented in Italy by the SIOMI scientific society and by the health-care model of the Italian Hospital of Integrated Medicine in Pitigliano. It is here stressed that the exaggerated defence of the two different classes of therapeutic model by the respective supporters slows down the achievement of a desirable symbiosis between the two different paradigms.



This cultural attitude is patently in contrast with natural phenomenology which shows the existence of two or more different responses of the living organism in the interaction with different amounts of the same xenobiotic (hormesis or enantiodromy). In fact, it is well ascertained that living organisms always experience benefits from interactions with low-dose xenobiotics. This can be the result of different mechanisms, but in any case it is a response of a system which wants to safeguard its own identity. On the other hand, the interaction with a large amount of the same substance may involve the inhibition of one or more biological mechanisms. The latter behaviour is commonly exploited in Western academic medicine which, in fact, seeks to utilise drugs that act as inhibitors.

It should be mentioned that the discovery of hormesis stands on a par with the dis-

coveries of modern conventional pharmacology. Here it is argued that contemporary realities have blocked scientific research into hormesis. Following Calabrese, the discoveries of high dosage pharmacology and consequent financial investments supported by the industry, together with the agreement of the leaders of the pharmacology (first of all Clark), overshadowed the importance of low-dosage pharmacology. Antibiotics, anaesthetics and chemotherapies proved to have such a high effectiveness that the aim of pharmacology came down to the discovery of new therapeutic agents with the same effectiveness and lower side effects, rather than the investigation of the effects of low doses as well.

There exists, however, a large amount of medical literature that investigates hormesis as a therapeutic tool. The treatment of Alzheimer's, bone remineralisation, cancer, viral infections, hair growth, autoimmune illnesses such as like Lupus, and acute respiratory diseases are examples where the application of hormesis has been found to be particularly effective.

Rationalism and empiricism in homeopathic clinical research

Another interesting approach in the search for clinical evidence is to consider the relative place that rationalism and empiricism may have in medical research and how this evolved with time. For *Professor Menachem Oberbaum*, classic homeopathy bases diagnosis upon the emotional, mental, 'general' and 'local' symptoms of the patient. Conventional medical diagnosis is of secondary importance. A single dose of precisely individualised medicine is very highly diluted and taken infrequently.

Clinical, or 'modern', homeopathy may be seen as a derivative of classic homeopathy and gives priority to conventional medical diagnosis while adhering to the basic

tenets of homeopathy. Emphasis is placed on symptoms related to the pathology, with a consideration of mental and general symptoms, particularly as they relate to the main complaint. Singleton remedies are employed in precontrived sequence. These remedies are less diluted (more concentrated), and administered at frequent intervals.

'Complex' homeopathy developed as a further attempt to adapt homeopathy to the conventional medical paradigm. Several remedies, each covering a different aspect of the conventional diagnosis, are mixed and administered in low dilution, with the expectation that at least one of these remedies will cover the case homeopathically. It is assumed that this type of homeopathy acts at a more superficial level than classic or clinical homeopathy.

Homeopathy was born at the turn of the eighteenth century as a minor but controversial actor upon the medical stage and at a time of unprecedented philosophical and intellectual upheaval: the Enlightenment. The 'Age of the Enlightenment', as the seventeenth and eighteenth centuries are known, emerged in reaction to absolutism and was characterised by an intellectual enterprise dedicated to enriching ethics, morality and knowledge, as well as the employment of the concepts of rationality and logocentricity. This period was characterised by secularisation, liberality, and the notion of human and citizens' rights. This movement gave a philosophical base to the American and French revolutions, the inception of democracy, and the rise of capitalism.

Two main epistemological movements characterised the Age of the Enlightenment: empiricism and rationalism. Empiricism is based on the premiss that the source of the human knowledge is the senses and that reason alone cannot be regarded as the source of knowledge. Knowledge is therefore *a posteriori* knowledge (originating in experience) making *a priori* knowl-

edge (not based on experience, i.e. stemming only from reasoning) impossible. Any and all knowledge stems either from experience or an inductive inference. The main empiricist thinkers were all British: John Locke, George Berkeley and David Hume.

The 'competing' movement to empiricism was rationalism, according to which reason is the source of all knowledge. Rationalism sets out cognitively consistent premisses and attempts, by a logical sequence of steps, to deduce every possible object of knowledge. Descartes, the ultimate rationalist, strongly influenced three of the leading rationalist minds of the Enlightenment era: Baruch Spinoza, Gottfried Leibniz and Christian Wolff.

It was within this new world of burgeoning rationality that Hahnemann created a new branch of empirical medicine – homeopathy – which was based upon four main observations:

Substances that were creative would induce the symptoms of illness in healthy human subjects. This method was called a 'proving' and is the essence of homeopathic pharmacology.

Toxic substances such as mercury or snake venoms could be serially diluted, thereby reducing toxicity, and would maintain efficacy if the serial dilutions were accompanied by a process called 'succussion'. Higher dilutions were more effective, with fewer side effects.

All substances have an emotional impact (today this is recognised as the psychological 'side effects' of drugs). The emotional impact can be discovered in a way similar to physical effects through application to healthy subjects (a method called a 'proving') or based on toxicology.

There is an intimate relationship between the emotional state of the patient and his or her pathology. This is an empiric experience related to the 'vitality' of the patient and reflected in his or her understanding of his or her life and his or her coping strategies.

This empirical experience can be addressed by remedies which have both a physical and an emotional impact.

Hahnemann spent two decades developing a pharmacotherapeutic system which he considered safer and more effective than the medicine practised by his colleagues, but although his method was not considered harmful Hahnemann sustained disproportionate attacks on his ideas, attacks not viewed as *argumentum ad personam* but rather as the battle lines of a rationalistic medicine that was fending off a new, empirical, interloper.

Hahnemann, indeed, was a pure empiricist, and advocated the prescription of individually tailored remedies, rejecting the organ-based pathological classification of illness as the guideline in diagnosis. Actually, conventional medicine sees each illness as the sum of the symptoms common to all pathological conditions bearing that illness's name. Homeopathy takes a different approach, viewing illness as a pathological condition specific to the individual and as an 'internal' illness manifested by the sum of the patient's symptoms, whether they be mental or physical, uniquely exhibited and experienced by the patient. Indeed, the mental and emotional states of the patient are important components in deciding which homeopathic remedy to use.

Individualisation is one of the most important principles of therapy in classic homeopathy. Each patient is characterised by individual attributes and symptoms which are unique to him or her, differing significantly from the superficially similar symptoms experienced by other patients. Idiosyncrasy, which is marginalised by conventional medicine, is a central element in homeopathy, and refers to the complex of mental, emotional and physical 'peculiar' properties which make each patient unique. Unlike conventional medicine, there is no specific remedy for a medical condition but, rather, a remedy which covers the sum of

unique symptoms accumulated from an in-depth interview of the patient. Extracting the unique and important symptoms from the large combination of symptoms collated from the patient's history, and then reconstructing from them a structured analysis, requires an experienced, highly-skilled, knowledgeable and broad-minded homeopath. Whereas a conventional general physician, even if not highly experienced or trained, may be able to adequately treat the majority of his or her patients, a mediocre homeopath will have significantly less success.

The clinical assessment of homeopathy

The clinical assessment of homeopathy has been carried out since its origins and offers, today, more than two centuries of records. However, as was explained by *Dr. Peter Fisher*, homeopathy is still one of the most controversial forms of complementary and alternative medicine. Throughout its history it has been the focus of controversy. Nevertheless, there is a significant and growing body of scientific evidence derived from clinical trials, systematic reviews and meta-analyses of such trials and biological experiments.

There are several distinct types of homeopathy. The main types are 'individualised' or 'classic' homeopathy, 'clinical' homeopathy, and isopathy. In individualised homeopathy typically a single homeopathic medicine is selected on the basis of the total symptom picture of a patient, including his or her mental, general and constitutional features. In clinical homeopathy, one or more homeopathic medicines are administered for standard clinical situations or conventional diagnoses; sometimes several homeopathic medicines are combined in a fixed ('complex') formulation. Isopathy is the use of homeopathic dilutions of allergens or causative infectious or toxic agents. Related medical systems which use

homeopathic medicines include homotoxicology, which was founded by H.H. Reckeweg and is based on interpreting illness as an expression of the defensive effort of the organism against pathogenic toxins and detoxification with homeopathic medicines, and anthroposophic medicine, an approach founded by R. Steiner and I. Wegman which integrated conventional medicine with the influence of the soul and the spirit.

To summarise: reviews of randomised clinical trial (RCT) conditions are broadly positive: childhood diarrhoea, influenza (treatment of), osteoarthritis, post-operative illness, seasonal allergic rhinitis, and rheumatic diseases. There is replicated RCT evidence that homeopathy may be effective in childhood diarrhoea, fibromyalgia, influenza, migraine, osteoarthritis, otitis media, vertigo and seasonal allergic rhinitis. There is also evidence from individual RCTs that homeopathy may be effective in chronic fatigue syndrome, premenstrual syndrome, post-partum bleeding, sepsis, stomatitis, symptoms related to cancer treatment, and ADHD (attention deficit hyperactivity disorder).

A review of clinical trials in homeopathy reported from 1975 to 2002 found 93 studies comparing homeopathy with placebo or other treatment. Positive effects of homeopathy were found in 50. The evidence favoured a positive treatment effect of homeopathy in: allergic rhinitis, childhood diarrhoea, fibromyalgia, influenza, pain, the side effects of radio-/chemotherapy, sprains, and upper respiratory tract infection. Analysing 12 systematic reviews of homeopathy for specific medical conditions, Jonas *et al.* reached similar conclusions: homeopathy may be effective for allergies, childhood diarrhoea, influenza and postoperative illness, but not for treatment of migraine or delayed-onset muscle soreness..

Single randomised clinical trials of homeopathy have been conducted in clinical areas including asthma, life-

threatening sepsis, and stomatitis induced by cancer chemotherapy, fibromyalgia, chronic fatigue syndrome, premenstrual syndrome, post-partum bleeding, and arnica in various clinical conditions. Most of these have yielded positive results.

In some clinical situations, both RCTs and clinical observational studies have been conducted, providing a fuller picture of the possible role of homeopathy. Such areas include upper respiratory tract and ear infections in children, attention deficit hyperactivity disorder, and homeopathy for symptoms related to cancer treatment.

On the other hand, the available evidence suggests that patients' confidence in the safety of homeopathy is justified: the hazards from homeopathic products are modest in comparison with those of conventional medicine. A systematic review of the safety of homeopathy between 1970 and 1995 came to the following conclusions: homeopathic medicines may provoke adverse effects but these are generally mild and transient; adverse effects of homeopathy are under-reported; and there are cases of 'mistaken identity' where herbal medicines were described as homeopathic. The main risks associated with homeopathy are indirect and relate to the prescriber rather than the medicine. In two studies, adverse reactions were observed in approximately 2.7 per cent of the patients; in a third study, 7.8 per cent of homeopathy patients had adverse reactions, compared to 22.3 per cent in the corresponding group receiving conventional treatment.

The main barrier to the scientific acceptance of homeopathy is its use of very high 'ultra-molecular' dilutions. The leading hypothesis to explain the effects of such dilutions centres on the storage of information by aqueous solutions: there is some evidence from physical science of specific structural modifications in water, induced by the homeopathic preparation process, which might be capable of

storing information, as was explained earlier by Professor Rey. A number of biological models of high-dilutions effects are reproducible.

Healing and wholeness

For *Rev. Dr. Jeremy Swayne*, men and women work on both sides of an unfortunate intellectual and metaphysical divide. We have a foot in two camps; the representatives of two frequently but quite unnecessarily competing paradigms. One is the reductionist and mechanistic paradigm of modern science which has produced the biomedical model with its wonderful and welcome power to control the processes of illness and physical functions. The other is usually described as the ‘holistic’

apeutic repertoire, and who wish to stress the importance of the concept of healing because it occupies the common ground between science and theology. Healing provides a connecting thread present throughout the history of evolution since no organism would have survived without the capacity to resist and to recover from the hostile influence of its environment and its competitors, and from disorder within itself. Preserving health, whether by protective and prophylactic means or by healing processes, is an evolutionary imperative.

The striving for integrity and wholeness on this level is an inherent instinct comparable to the body’s instinct for self-regulation and repair in the face of physical damage and illness.



paradigm; the paradigm that recognises the importance of the subtle interplay of the many dimensions of human nature and human experience in determining individual well-being, and in predisposing to illness. And this recognises the importance of using subtle means to stimulate healing and self-regulating processes within the human body, mind and spirit.

It is important to state, however, that these two paradigms are entirely compatible. The holistic perspective is common to all health care practitioners who really care about their patients, whatever the biomedical focus of their ther-

The most essential characteristic of healing is that it is creative and not just remedial. It is fundamentally similar at whatever level of our being it operates, cannot be achieved without some degree of suffering, and involves us in changing our attitudes and new responsibilities.

Wound healing provides a simple example. It requires our body ‘understanding’ what has happened; recognising and responding to the effects of trauma. It requires the physiological resources of immunity to infection and tissue repair being effectively mobilised. There will be new tissue growth, which may even be

stronger than the original tissue. And if the damage is sufficient, it will require ‘reconciliation’, some adjustment to compensate for any loss of function. These examples can readily be extended to the healing of psychological and spiritual wounds.

Healing also involves some degree of suffering. Suffering is not only the consequence of illness and trauma: it is inherent in the healing process. This truth is vividly expressed in Christian theology in the Passion and Crucifixion of Jesus.

Finally, healing always involves reconciliation and change. More broadly, any illness, injury or disability affects our relationships with others, and with ourselves – as a person as well as a body; whether temporarily or longer term – through the limitations it imposes, because of its implications for our activities and prospects: lifestyle, occupation and so on. Illness affects other people’s responsibilities towards us, and ours towards them.

Mental and emotional illness, the colloquially called ‘nervous breakdown’, is often an essential prelude to the development of new psychological insights and strengths and the healing of old wounds; breaking down is a necessary condition for rebuilding and new growth.

The idea that illness is the agent of healing is also reflected in the proposition that symptoms are the expression of the organism to disorder, its coping mechanism, rather than its failure to cope.

Another paradox is that rather than suffering from an illness we are often suffering from a ‘wellness’. The pain caused by a physical injury is the response of a healthy nervous system to trauma. The pain of rejection, abuse, the denial of love and of self-worth, is the healthy response of our wounded humanity.

A third paradox is that healing does not necessarily involve cure, and cure does not necessarily involve healing. Indeed, the pursuit of cure may allow destructive influences that produced the disorder to

persist. And within the constraints of an incurable illness, an individual may achieve the personal and spiritual growth, the integration and reconciliation, that amount to healing in the fullest sense.

The goal of healing is wholeness. It is the fulfilment, as far as is possible in our lifetime, of the unique potential of each individual. It is the fulfilment of our unique vocation and has to do with integration – the bringing together into a balanced and interactive whole of all our faculties, attributes and characteristics, the physical, emotional and intellectual, psychic and spiritual. However, wholeness does not mean perfection. Indeed, the pursuit of perfection may only be achieved at the cost of our true humanity, our capacity for wholeness. The wonderful thing about becoming a whole, well-integrated, person is that flaws and imperfections, the vulnerable, disordered and ugly parts, are transcended by the value of the whole. Our only guide, then, is our instinct to wholeness, the vocation to be uniquely ourselves and to be able to grow in relation to the respect and love shown to them by others. And the healing and integrative process made possible in even the most disordered lives is healing and integrative not just for individuals but for the community of which they are a part.

This is why a homeopathic consultation is a whole-making experience. It may be the first time a patient has been encouraged to think of himself or herself as a whole becoming aware of himself or herself in a new way, which can be quite daunting but is also liberating and affirming. Secondly, homeopathy provides an emphatic demonstration of the capacity of the body and mind for self-regulation and self-healing. This is a remarkable experience. The realisation by patients that it is their own natural capacity to heal that is at work is hugely encouraging and affirming. A third principle of healing that the homeopathic approach facilitates is reconciliation. This often, of course, requires for-

givenness, of others or of ourselves; and the manner in which a patient's history emerges sometimes has a confessional quality.

Finally, to promote healing in the fullest sense we must help the patient to arrive at the heart of the matter and to come to an understanding with himself.

Homeopathy as complementary integrated medicine

One of the major issues which has been addressed by this seminar is the place of non-conventional therapies within an overall public health programme. On the basis of both scientific and clinical data, as well as of historical accounts and socio-cultural experience, it has been clearly stated that these therapies are not alternative but complementary. In other words, they are not designed to substitute classic allopathy but should preferably be associated with conventional remedies whenever needed. In some instances, however, when conventional therapies fail or when they are not specifically required, homeopathy can be used on its own.

This is, precisely, what was introduced into the Emergency Centre of the Vienna Hospital by *Professor Michael Frass* who presented at the seminar different clinical observations where homeopathy gave remarkable results in association with classic chemical therapy in dramatic medical cases and acute poisoning. This is, indeed, both a matter of efficiency and reason, and is attested to by the fact that over the last decades the use of homeopathy has dramatically increased within the population at large in most countries, including the USA, which had been rather reluctant for several decades. This is highly significant since in many countries, very unfortunately, homeopathic therapy is not covered by the national insurance system although citizens adjudge its benefits to outweigh its cost.

In Professor Frass' view, the professional combination of conventional medicine and homeopathy is the perfect method by which to support patients on their way to health. Any fanatical approach in either direction should be avoided. The diagnostic merits of conventional medicine are indisputable; however, the therapeutic approach may be different in these two methods. What we try to demonstrate is that homeopathy is not an alternative but a complementary medicine and that, accordingly, it does not replace classic therapy. It adds something different – and often more efficient – to routine practices. It is quite clear that in critically ill patients, e.g. patients poisoned by *Amanita phalloides*, classic emergency treatment is mandatory, otherwise the patient would die before any attempt with homeopathy was possible. But when focusing on milder illnesses, especially infectious and rheumatic disorders, homeopathy can often help the patient without additional conventional treatment being required.

Whatever the case, experience and objective judgement are the solid basis for treatment and use of different methods. Therefore, the dialogue between conventional medicine and homeopathy is mandatory and should be taught during medical studies at universities.

What are we fighting for?

This is the destiny of modern times: we are compelled to fight, in life, on sports grounds, against competition, unemployment, stupidity and death. For *Christian Boiron* we are, unfortunately, committed to doing this and health does not escape this battle!

Nevertheless, the tracking of drugs has not erased the drug market; it might even have made this practice more attractive!

The fight against unemployment has not eradicated this cancer and the social treatment of this dramatic issue very often delays its resolution.

Thanks to the spreading of democracy we have almost succeeded in eradicating war but, at the same time, we are more and more concerned about, if not involved in, violent political conflicts far from our own lands!

The rocketing development of medicine certainly helped to get rid of many devastating diseases but, today, thousands of people die in hospitals from illnesses acquired within them and the over-prescription of antibiotics, vaccines, anti-inflammatory products etc. has given new strength to micro-organisms which adapt themselves to increasingly aggressive environments. Faced with this situation, the major companies are not always guided by ethical considerations – they are merely driven by the financial interests of their shareholders over whom their bureaucratic management has little control!

In the fierce war against infectious diseases it is not always understood that many

‘potent’ remedies may turn into toxic products if they are not used in a sensible way! Governments and international agencies, afraid of the potential negative consequences of their policies, very often unduly dramatise the issues!

How can we find peace again within our own bodies, within our own minds, unless we take into account the formidable healing capacity of our organism? Should we not remember that we are God’s creatures and that Hippocrates himself said that the first duty of the physician was not to harm the patient? *Primum non nocere!*

As we have seen throughout this seminar man should be understood as a global entity with his physical, psychological and spiritual potentialities. In many cases, the simple stimulation of our internal defence is enough to combat illness. There come in the complementary therapies, there comes homeopathy and, altogether, there is quite another

approach to health care, which is no longer exclusively dependent upon medical care.

There are preventive strategies, ‘soft’ therapies, osteopathy, chiropractics, kinesitherapy, thermalism... and many other ways of addressing the mind, from meditation to art, always in search of happiness.

It is crystal clear that our medical teaching today is incomplete and completely misses these goals. It is quite true, in this perspective, that though science is an unavoidable element in our concern for health, all the other elements, the sensorial, affective, emotional, and spiritual, should be involved.

It is up to our modern physicians to understand these basic requirements and to adapt their therapies to each individual person, taking care of his or her uniqueness and intrinsic frailty.

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