



Presidenza del Consiglio dei Ministri
NATIONAL BIOETHICS COMMITTEE

**ALTERNATIVE MEDICINE
AND THE PROBLEM OF INFORMED CONSENT**

18th of March 2005

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PRESENTATION

The dispute between “scientific” medicine and so-called “non-conventional” medicines has lasted for decades (maybe it has always existed), it remains strong and bitter even though some scholars try to attenuate and appease it. It is an erroneous common belief that the dispute concerns the effectiveness of medicine in general and alternative therapies in particular: anyone who has participated in a debate among experts of both one or the other schools of thought will have inevitably noted that despite its starting off on a high tone, it ends up being reduced to a series of testimonies (negative, that is, failures for some, and positive, that is, therapeutic triumphs, for others). Testimonies that are generic at times, but sometimes also incredibly accurate, at other times inconclusive, but at times indisputable, all of them almost always fascinating at the level of common experience regarding the “passion” which inevitably emerges (and how could it be otherwise, in a cause that has no other object other than that of the relationship between health/illness, the most engrossing and perturbing combination of human experiences?), all epistemologically, however, out of tune, because from none of them emerges anything concerning the nodal point of the question, that is not factual (if it were, a well-linked chain of testimonies could definitely resolve it), but of principle. The point is that the core of the matter does not concern medicine as a social practice, but the status of medicine as a science. And it is obvious that you do not become scientists through *vox populi*, but through forms of institutional recognition, that the modern era has legalized, giving to medical schools legal and public status. The attempt, which is typical of recent years, to include non-conventional medicine within the institution of scientific medicine has relevant pragmatic reasons, but it is fragile from the theoretical point of view, as are all generally based mediation efforts based more on the convergence of interests, than on respect for intellectual coherence.

Naturally, it is not for the National Bioethics Committee to establish itself as the referee of disputes of such complexity, which should rightly remain entrusted exclusively to specialists in epistemology. But there is a profile, inherent to the practice of unconventional medicine, that of informed consent, which is of an extremely important ethical value. The NBC dealt with this subject in the document *Information and Consent to Medical Treatment*, as early as 1992. If from that day to this the awareness has definitively been established that the foundation of the ethicality of any medical practice must be (except for extreme cases) constituted by the dialogic and competent agreement between the patient and the therapist, this is not to say that the patient's informed consent should be regarded as an easily manageable problem: both consent and especially information are extremely complex and often ambiguous. In the case of non-conventional medicine, other problems, more specific and perhaps even more subtle, are added to common problems that these issues give rise to,, that are, partly touched upon in the document *Aims, limits and risks of medicine* of 14th December 2001. The decisive request for the NBC to take charge of the issue came in September 1992, when Girolamo Sirchia, Minister of Health, included the issue of informed consent in medicine with particular emphasis on non-traditional medicine within the group of subjects to be addressed and discussed by the NBC. The Committee, at its plenary session held on the 20th September 2002, launched a working group,

which was entrusted to the coordination of Prof. John Federspil. Many members of the NBC joined the group, demonstrating how this issue was considered as essential and urgent: Dario Antiseri, Mauro Barni, Luisella Battaglia, Sergio Belardinelli, Paola Binetti, Adriano Bompiani, Cinzia Caporale, Isabella Maria Coghi, Lorenzo d'Avack, Giuseppe Del Barone, Luisa Di Pietro, Angelo Fiori, Carlo Flamigni, Renata Gaddini, Laura Guidoni, Gianfranco Iadecola, Vittorio Mathieu, Demetrio Neri, Pasqualino Santori, Michele Schiavone, Bruno Silvestrini, Giancarlo Umani-Ronchi. The group's work lasted from 20th March 2003 to 16th December 2004 and benefitted from a hearing held on the 18th June 2004, during which doctors and scholars representing different positions within the sphere of non-conventional medicine were heard.

The draft document was prepared by the coordinator of the group Giovanni Federspil along with the essential contribution of Dario Antiseri, and Angelo Fiori and Mauro Barni for the part relating to informed consent, and which I, the writer, subsequently revised; it was then brought to the attention of the Committee, in the plenary session, and after lively discussion was unanimously approved on the 18th March 2005.

*President of the National Bioethics Committee
Prof. Francesco D'Agostino*

Alternative medicine and the problem of informed consent

1. In this text the term *alternative medicine* is adopted – *without making the claim that it is undoubtedly the most correct* - to describe the diagnostic and therapeutic practices, *performed by doctors*, which are based on concepts, theories and principles currently irreducible to established scientific knowledge pertaining to the Western epistemological tradition and whose claims of efficacy and safety, while widely claimed and argued by many in different ways, are not supported in the opinion of the majority of the members of the NBC (or are nevertheless not satisfactorily sustained) by evidence carried out with rigorous and experimentally reliable methods. By choosing the term *alternative medicine*, the NBC is also well aware that there are others, that could usefully be used, e.g. *complementary, parallel, gentle, natural, holistic, integrative, green, non-conventional, non-scientific and "other" medicines* etc., all terms that in one way or the other are expressive of significant aspects of a different way of considering medicine. Even the adjective which is commonly used to describe (sometimes antagonistically) the medicine from which alternative medicine intends to differentiate and distance itself from can be very diversified: one speaks of medicine as *scientific, official, formal, academic, and orthodox*; but for some it would be appropriate to abandon all such adjectives and simply speak *tout court* of *medicine*. In this text the term *scientific medicine* will be used, as the Committee has done on other occasions and for the reasons indicated below.

2. By using the term *alternative medicine* in this document the NBC exclusively refers to practices whose effectiveness can not be ascertained by the criteria used by scientific medicine, such as pranotherapy, Ayur-Vedic medicine, anthroposophic medicine, homotoxicology, homeopathy, Traditional Chinese and Tibetan medicine, chromotherapy, Bach flowers, Rei-ki, iridology, etc. Instead, the NBC believes it would be more appropriate to use the term empirical rather than alternative for other therapeutic practices, such as reflexology acupuncture, phytotherapy and manual medicine, which in some cases appear beneficial for patients and are not substantially far away from other forms of physical therapy (mud therapy, crenotherapy, diathermy, massage therapy, etc.). The considerations made in this text do not refer to empirical medicines, which the NBC reserves the right to address on another occasion, but rather it seeks, more generally, to be a renewal and close examination of the issues developed in particular in § 4 of the document *Aims, limits and risks of medicine*, approved by the NBC on the 14th December 2001.

3. The NBC is aware that the massive and growing diffusion in the Western world of alternative medicine (a social phenomenon that can not be studied as such by the NBC) also depends on (and for some only on) the fact that many patients *subjectively* benefit from such therapeutic indications: *these experiences, however, deserve attention and respect*. The right to autonomy and freedom of treatment is in fact a primary right of all citizens, not only exercised by those who regularly or occasionally, but however consciously, identify as their doctor an expert of alternative medicine, but also by all patients with equal awareness who decide to disregard the limitations of scientific medicine.

4. The NBC notes, however, that the patient's primary right to autonomy and freedom of treatment, whether it be directed towards scientific medicine or makes recourse to alternative treatments, can never be substantiated in claims that are incompatible with the dignity and rights of the patient and with the respect due to the professional position of the doctor: the latter, in complex societies, is morally, ethically and legally the guarantor of health, as well as of his professionalism, and can not be bound to the merely and passively carrying out the patient's will.

5. Compared with the benefits subjectively experienced by many patients who use alternative medicine, there are significant and worrying cases in which its use must be regarded as objectively and specifically *harmful*. In addition, it may well be the case that a patient is actually harmed by the use of such practices, due to the fact that the use of alternative diagnostics and therapies may unnecessarily and unfortunately sometimes *irremediably* delay the use of more rigorous and effective diagnosis and scientific therapies. The members of the NBC insist to stress on this possibility, which they consider one of the most serious ethical problems faced by the advocates and devotees of these practices.

6. The national and regional public institutions, universities, medical orders and colleges of health professions and also accredited medical and scientific associations, have, even in bioethical terms, the duty to inform citizens not only about the dangers of each medication and any recourse to illegal operators of medicine, but also concerning the validity, limits and risks that are inevitably included in *any* kind of practice – "scientific" or "alternative" - which has diagnostic and therapeutic aims. In particular, the NBC reiterates the essential role of the *public health service* (established and regulated by European and national directives) regarding the testing of drugs and pharmacovigilance. The not uncommon withdrawal from the market of initially-considered beneficial drugs, but that subsequently prove to be risky or definitely harmful, or ineffective, is a typical example of the exercise of obligations incumbent on the Health Authority. The same official subdivision of drugs into categories, for reimbursement purposes, - through the distinction between essential drugs and others considered as less essential – is indicative of how, even in this area, scientific medicine constantly remodels its concepts and the rules of conduct that derive from them.

7. According to the NBC it is a bioethical and deontological requisite that no medical and therapeutic practice should elude the obligation of systematic experimentation, implemented according to strict protocols that are methodologically correct and binding, in the name of the constitutional right to health. It should also be a requirement for each trial to be subject to public controls, implemented through the work of experts, third parties and independents. This duty lies, in the opinion of the NBC, on every medical practice, and *therefore also on those related to alternative medicine*. It is essential that the remedies utilised by the practice of alternative medicine correspond to the same required standards of efficacy as the prescribed medicines utilised in conventional scientific medicine, for the institutionalization of a *double standard* for the pharmaceutical market is unacceptable.

8. It should also be noted that some alternative medicines do not consent to be subjected to the experimental verification protocols commonly used by scientific medicine and often claim particularities that should exempt or not make feasible such controls regarding them. On this point, the epistemological debate is particularly lively and a rapid and shared solution certainly does not appear likely. The NBC does not believe it has jurisdiction to comment on purely epistemological and methodological matters, but can not abstain from giving the right significance to the worrying positions adopted by various Scientific Associations and Medical Faculties, and is aware of the unease that such controversial issues arouse in those called on to develop bioethical evaluations. Many members of the NBC hold the opinion that, given the epistemological fragility (the greater part at least) of alternative medicine, which, according to them, seems currently demonstrated, this places a particular and further responsibility on the physicians that resort to these practices, in relation to those normally assigned to doctors who exclusively apply the methods, Guidelines and protocols of scientific medicine.

9. The public opinion must necessarily receive as a priority the basic information that the medicine that is mostly practiced in the world is *modern scientific* medicine. It must be recognized (without indulging in triumphalism, for many are the errors and sometimes tragedies caused by practice of scientific medicine) that the worldwide diffusion of this medicine, along with the additional fundamental factor of the different conditions of hygiene, food and, in general, of way of life of many populations, has allowed the increase in life expectancy, the correct diagnosis, optimal treatment and often the cure of a large number of diseases (including in particular epidemic and infectious diseases). And it is on the development of such medicine that hopes are based on finding successful treatment for the current ominous diseases, such as many cancers, AIDS or Alzheimer's disease. Scientific medicine, since the adoption of the experimental method, is based on the entirety of those knowledge related to the structure and functions of the human body that can be developed through the interaction and integration of various methodologically based disciplines such as physics, chemistry, biology and in particular molecular biology, genetics, physiology, anatomy, general pathology, and psychology. This medicine, which day by day increases its knowledge thanks to the research of many scholars, also deserves to be called *scientific*, for it is able, thanks to a public debate which in principle excludes all sectarianism and every esotericism, to correct itself and modify its concepts and practices with great flexibility, based on the experience of mistakes made and the development of always new paradigms.

10. It is right, according to the NBC, that citizens should be informed on the status, improvements, successes and failures of scientific medicine, similarly, it is also behaving to inform them that alternative medicine - regardless of the successes claimed by their supporters, which in the context of this document the NBC does not intend to call into question - do not have an epistemological statute characterized by the same rigor. Many of these are elaborated in a philosophical and/or spiritual form, occasionally of a highly suggestive nature, but irreducible to any empirical test. Some don't justify their efficacy with reference to a *public doctrinal corpus*, that can be taught, learned and then *transmitted*, but to faculties or *powers* that are inborn, *personal*, assumed to present in the therapist and which the same therapist is unable to

indicate the cause or objective source. Others, like many forms of *folk*, *ethnic* or *traditional* medicine, have not experienced any significant progress that is historically documented, as evidenced by the fact that they remain crystallized in their concepts and in their ancestral centennial or even millennial practices (e.g. Ayur-Vedic Medicine or Tibetan Medicine). While others are committed to seeking confirmation by referring to the common notions of physical and chemical sciences, however without being able to establish any real connection between their practices and claims and those of science itself endowed with methodologically consolidated statutes. It should not be omitted that a number of alternative medicines not only assume antagonistic attitudes, that are sometimes very harsh and ungenerous, with respect to scientific medicine, but are mutually irreducible, basing themselves on principles that are radically alternative to each other and therefore it is logically impossible to simultaneously defend and justify them *due to the contradiction which does not consent it*.

11. This does not mean that, as already noted, in a significant number of cases, thanks to the use of alternative medicine, many patients do not obtain some alleviation of their symptoms (only in those cases – as pointed out by many – where these ailments are of minor importance). It is also well known that some proposers of alternative medicine insist to stress how their greatest contribution consists in the symptomatic treatment of chronic cases that are difficult to treat with scientific methods. On the contrary, much more controversial is the assessment of the *real* effectiveness of alternative medicine in patients with particularly severe diseases or diseases with a rapid course for which there is no hypothesis of psycho-somatic causes or contributory causes. According to the opinion of some members of the NBC, the effectiveness of alternative medicine, when detected, can be explained with the well-known *placebo* effect, as well as the stronger commitment that in general (and *commendably*) the experts of these practices devote to the care and comfort of all their patients. In fact, it is well-known that some experts of medical science ignore the psychological needs of the *sick person*, in the search for the correct diagnosis and treatment of the *disease*, while generally the experts of alternative medicine more frequently make use of a closeness in relation to the sick that is sometimes absent in practices of scientific medicine.

12. It is the unanimous opinion of the NBC that it is bioethically behaving that all these aspects of *alternative medicine* - in both their positive and negative dimension – should be made known to all citizens and in particular to all patients. It is also behaving that these aspects are also well known even to physicians: they must always be able to provide fair and honest information about the efficacy and limitations of the services provided by any medical practice and therefore also by those that are not or not yet scientifically based.

13. Alongside the *doctor's duty* to provide all the necessary information to the patient so that he can take his decisions independently there is, as is known, the *patient's duty* to provide the doctor with all possible information in his possession to ensure correct diagnosis and appropriate therapeutic indications. In the field of alternative medicine, this duty of the patient assumes a crucial importance in relation to the possible interactions between the substances prescribed according to the paradigms of alternative medicine and

those prescribed according to the protocols of scientific medicine: these interactions may prevent physicians to make a correct diagnosis and indicate the optimal treatment for the patient. Often the patient is led to underestimate the duty to provide this information, both because he ignores the possible effects of pharmaceutical products (which he himself sometimes takes, without medical supervision), or brought about by an undue, but sometimes unsurpassable form of "reticence" to tell the doctor who is treating him about his (sometimes occasional) adherence to a model of medicine that he knows the doctor does not approve of. Reliable surveys show that especially those patients who use regularly prescribed antidepressants, often, on their own initiative, add alternative adjuvants, ignoring the fact that natural products against anxiety and depression can have dangerous effects when taken together with other drugs. The NBC, aware of the extent of this problem, insists on the importance of making the public opinion the need to establish the doctor-patient relationship on mutual and honest information, as an indispensable element for the establishment of a true "therapeutic alliance".

14. It is taken for granted that it is the duty of every clinician to behave according to his best *knowledge and consciousness*, as regards his patient. This ancient motto ties together two different entities - knowledge and consciousness - in a professional *unicum* and binds the physician -as holder of a *public* degree certificate and *public qualification* to practice medicine - to treat the patient not following his subjective and private intuitions, even though suggestive, but by what is dictated by scientific knowledge publicly validated in each and every historical moment. The NBC recognizes every doctor's right to the so-called *freedom of treatment* (which is indeed to be seen as one of the factors in the progress of medicine), but that freedom must necessarily be exercised within the fundamental perspective of the protection of the health of the patient and therefore should foresee *in primis* patient's proposal of remedies of proven effectiveness. Only in the event of a total absence of such remedies or a lack of efficacy in the actual clinical case or the existence of evident contraindications or following refusal by the adequately informed patient, could it seem legitimate, with the required consent of the patient, to change to other therapies, provided that, they are never the result of subjective or arbitrary choices of the therapist; *it is an essential bioethical principle that the freedom of treatment must always be combined with the professional guarantees that the code of medical ethics imposes on the physician in relation to the patient.*

15. It is without doubt, in the opinion of NBC, that in some circumstances (particularly in the case of non-serious forms of disease or hypochondriac patients or palliative therapy) it would seem justified to resort to the administration of substances or to the carrying out of practices that are not scientifically validated, *provided that the patient is competent and informed, and makes an explicit request for it.* The NBC, however, unanimously reiterated that *in the case of undoubtedly serious morbid situations, for which there are known and effective remedies, it does not appear in any case lawful, either legally or deontologically, or bioethically for the doctor not to carry out the investigations designated by scientific medicine and not to make every effort to clarify to the patient the consequences of his possible refusal of the care deemed useful or even indispensable by this medicine.* The NBC is therefore unanimous in their

belief that *in these cases* the medical practices that are not founded on scientific evidence are unable to *substitute* those of scientific medicine.

16. The NBC is of the opinion that if a patient, who is properly informed, expressly intends to refuse the treatments of scientific medicine, and prefers to rely on the therapeutic indications of an alternative medicine prescribed by a physician, the costs of the preparations and services rendered should not be charged to the National Health Service.

17. Particular attention should be paid by physicians to the use of alternative medicines when the patients are minors or incapacitated, even when they are requested by their parents or guardians. If the least important pathologies are excluded, which may also suggest the possibility of not proceeding to therapeutic treatments, waiting for the more than likely spontaneous healing process of the sick person, doctors should always prescribe the use of therapies that are more scientifically validated.

18. It is hoped that Universities and more generally all research institutions autonomously develop research programs on alternative medicine, on its history, on its prevalence, on its epistemological plausibility, on the sociological implications of its use and on any other aspects relevant to the spread and increase of knowledge. The teaching or the disciplines that have as their object these aspects of medicine should be aimed at introducing the students to an issue of great importance in the context of contemporary health care, and not at conveying to them the idea, epistemologically unjustifiable and inconsistent with the prestigious *legal* value of the *unitary* degree awarded at University, that the pluralism *in* science is equivalent to a plurality *of the sciences*. Nor is it acceptable that the teaching of these aspects of medicine may have a particular professionalizing value, spent on the market differently from that which ordinarily is enjoyed by every doctor.

19. It is also essential that the teaching related to alternative medicine should be entrusted to scholars identified according to the regular methods of recruitment of university teachers, without giving the decision-making powers (which would constitute undue privileges) to the reference associations of alternative medicine (and this is in full analogy with what happens for the medical and scientific associations, which, however great their prestige may be, they do not have and should not have the power to formally identify the university teachers for their reference disciplines). Each physician (and not an *ad hoc* doctor) should obtain during his formative years an adequate knowledge of the reasons that militate in favor of and those against the claims of alternative medicine. The NBC on this point confirms the view previously expressed with the *Motion on non-conventional medicines and practices*, approved on 23rd April 2004.

PERSONAL REMARK

Some members of the NBC believe they should better clarify their position, in the following terms. First of all, medical treatment should be assessed as regards effectiveness and safety, and documented in accordance with the established and indispensable criteria dictated by the scientific method. The theoretical basis and explanation of the mechanism of action of treatment are guides for medical practice, but their absence does not exclude recourse to documented treatment in a faultless manner in terms of efficacy and safety. Moreover, it should be noted, that many drugs of modern scientific medicine were introduced in therapy without knowing the mechanism of action.

Based on these principles, encoded by so-called "medical evidence", it is believed that alternative or non-conventional medicine should be judged primarily according to the documentation supplied by the methodologically sound criteria of the efficacy and safety of treatment. The guiding principles of alternative or non-conventional medicine, may have a cultural value, and be the subject of courses on the history of medicine, but they are secondary in terms of current medical practice and the interest of the patient.

In conclusion, the opinion of the Director of the Centre for Complementary and Alternative Medicine, NIH - National Institutes of Health, seems acceptable, according to which alternative or non-conventional medicine offer many interesting opportunities, which must be assessed in an "appropriate manner", whereas the term appropriate indicate with respect to the scientific method.

Prof. Bruno Silvestrini
Prof. Luisella Battaglia
Prof. Cinzia Caporale
Prof. Isabella Coghi
Prof. Renata De Benedetti Gaddini
Prof. Giuseppe Del Barone
Prof. Carlo Flamigni
Prof. Enrico Garaci
Dr. Laura Guidoni
Prof. Demetrio Neri
Prof. Pietro Rescigno
Dr. Pasqualino Santori

PERSONAL REMARK

In approving the document, Prof. Demetrio Neri expressed his doubts on the content of paragraph 4, which is here reproduced in the form acceptable to him: "The NBC notes, however, that the patient's primary right to autonomy and the freedom of treatment, whether it be directed towards scientific medicine, or to the use to alternative treatments, must merge with the respect due to the professional position of the physician: the latter is, in complex societies, ethically, deontologically and legally guarantor of health care, as well as of his professionalism, and can legitimately refuse services which conflict with his conscience or with his clinical convictions".

Prof. Demetrio Neri

PERSONAL REMARK

In the text, at point 17, concerning "minors or incapacitated patients," it is stated that "... the inability to obtain or however, to consider as valid consent to such practices by such patients should prompt physicians to always suggest the use of scientifically validated therapies".

It is true that adults can, better than children, evaluate risks and advantages, and may reject what, in their view, is not useful and, as such, is not worth the discomfort or suffering that it entails. This is true, but it is acknowledged that children, almost until adolescence, think through their parents. If the physician to whom they have been entrusted has confidence in alternative medicine, why not consent their use also for children? Reflecting on this point, I ask myself why they also are not entitled to make use of the medicine in which their parents have placed their trust and which they see them use.

One of the accusations made regarding alternative medicine is that they have no demonstrable scientific basis. But in order to have a scientific basis what is required is research and funding of diverse nature from private industries to state public bodies, to which alternative medicines have, until now, only had limited access. But children believe valid (good) only what they see their parents do and, while they are able to have their own informed consent, they do exactly what their parents do and give greater trust to the alternative medicine they see their parents use than to the medicine prescribed by a different physician, despite it being "scientific" medicine.

Prof. Renata De Benedetti Gaddini

APPENDIX

THE BASIC CONCEPTS OF MAJOR ALTERNATIVE MEDICINE

Certainly the basic concepts and theories that constitute the theoretical backbone of the principle 'Alternative Medicine' can not be easily summarized in a few pages. Here we will outline the basic ideas of some of these 'medicines', from which the diagnostic and / or healing practices are derived, that are applied in daily clinical procedures.

Notwithstanding the various names ('Acupuncture', Homeopathy ', Homotoxicology', etc..) indicate in current language the clinical practices, before beginning these short expositions it is essential to point out that, strictly speaking, 'alternative medicine' are constituted, first of all, of their theories and not of the therapeutic practices implemented at the bedside of the patient.

The healing techniques and their effects, in fact, are merely empirical events that can be interpreted in various ways; what identifies a specific alternative medicine is the set of entities that this postulates and the relationships between them. These entities and these relationships, in fact, allow to formulate the diagnosis, to propose the explanations of pathological phenomena, and to foresee that certain therapeutic measures will or will not have a beneficial effect in a given patient.

Thus, to exemplify, the threading of a needle in one point of the skin to achieve a therapeutic effect is certainly not an indication of Chinese acupuncture. What connotes Chinese acupuncture is a complex network of concepts (see below) from which one can infer that the insertion of the needle vertically at the point IT1 (small pond, swamp) 2 mm proximal and lateral to the sulcus matricis unguis outside of the little finger, will have effects on visual difficulties, blurred vision, rhinitis with stuffy nose, epistaxis,, nuchal rigidity, mastitis, ipogalattia, coughing and tinnitus. Here, "according to tradition is the energy flow from the heart meridian to the small intestine meridian " (Sembianti 1980, p. 173). Similarly, the threading of a needle into the vertical R2 (illuminating valley, the source of the serpent) of the kidney meridian, which lies on the inside of the foot, just below the first Tuberositas navicular bone in a hollow"(Sembianti 1980, p. 228), it regulates perspiration and is indicated in clotting disorders, swelling and pain in the oropharynx, diabetes mellitus, nephropathy, urethritis, spermatorrhoea, pain in the scrotum, vaginitis, infertility, rheumatic disorders in the lower limbs and skin abscesses of all types. The kidney meridian has traditionally been considered "the strengthening organ of the power that controls will, the regulator of sleep in winter and the foundation of congenital constitution" (Sembianti 1980, p. 223). Currently it is considered a catabolic meridian (Sembianti 1980, p. 223).

Since even a very superficial analysis of all 'alternative medicine' would be impossible, here we will treat some groups of these doctrines attached to a therapeutic practice, and joined together, where possible, on the basis of their historical and / or geographical and / or theoretical affinities.

The Medicine of Asia

a) Traditional Chinese medicine

This practice is presented in two forms: a) popular medicine, which is a mixture of recipes and family traditions and religious and magical practices based on Buddhism and Taoism (Huard 1981, p. 97), b) classic medicine that consists of an imposing body of canonical treaties, many of them before the Christian era, with highly considerable difficulties regarding translation and comprehension in Western languages.

The cosmos, in which human being is included, "rhythmically proceeds from an immutable and eternal principle (Tao), which manifests itself in two aspects: Yin and Yang." The Yin and Yang are not defined per se, but are entities or concepts related to one another: for example, Yang is what is above in relation to what is below; what is hotter, drier, more alive, more to the right, while the Yin is what is cooler, less dry, less alive, more to the left. Thus, the waist is Yang in relation to the feet but is Yin in relation to the head, and therefore everything is both Yin and Yang.

The cosmos is crossed by a universal energy that penetrates the human body and crosses along a system of very special channels that are not observable (Tching or 'meridians'). These internal channels emerge to the surface of the skin at specific points that are specifically the 'points' used in traditional Chinese acupuncture. The energy that circulates in the body is usually in a state of equilibrium that corresponds to health; any change of this energy balance gives rise to a pathological condition which corresponds to an excess or a deficit of energy of one or more organs. The acupuncturist, who makes his diagnostic judgement from examination of the wrists or from the auricular diagnostic, proposes to restore the balance of circulating cosmic energy through the puncture of specific 'points'. Therefore, he will puncture this or that 'point' in order to disperse (lower) or tone (increase) the energy that circulates on the corresponding meridian and then on a specific organ and other organs related to this in two cycles: the creative cycle (or Cheng cycle) and the destructive cycle "(or K'eu cycle).

b) Tibetan medicine

Tibetan medicine or Lamaism, widespread in Tibet and Central Asia, derives primarily from Buddhist and Indian medicine and is based on the doctrine of the three 'humours': bile, air and phlegm. These names do not, however, indicate the three compounds that are known in the West, but refer to three fundamental principles: the mind, energy and inert matter (Burang 1976, p. 9). The main location of bile is at the centre of the body, phlegm is in upper part of the body and air in the lower part. Illnesses are caused by excessive expansion of one of these three principal 'humours'. While the ancient Indians, being prone to spiritualization and meditation, were exposed to illnesses due to excess of air, Westerners are today exposed to illness due to an excess of bile and/or phlegm. (Burang 1976, p. 11). Diseases are also divided in 'hot' and 'cold' and while the first would be due to an expansion of the blood the latter would be caused by an expansion of phlegm. The location of disease is most

often located within or close to four organs: the stomach, the liver, and the upper and lower intestine.

The Tibetan diagnostic technique is quite simple: cloudy urine indicates an excess of bile, if the colour is yellow-reddish it means that it is a 'hot' disease due to bile. Very foamy urine indicates an excess of air and if it is completely odourless, an excess of phlegm. Finally, even the appearance of the tongue (yellow, rough and dry, or whitish) indicates that the disturbance is due respectively, to bile, or air or phlegm (Burang 1976, p. 15).

According to Tibetan medicine, alongside the material body there is a "second body" that is "the subtle counterpart of the rough human shell", which is crossed by a very large number of channels (some would say 1,000, according to others, however, 10,000), which allow the circulation of the "subtle counterpart of air" (Burang 1976, p. 20).

Those exposed so far are just some of the basic concepts of Tibetan medicine. As regards others, such as the connection between the material body and the second body, the circulatory system of the life force, the examination of the pupil, the diagnostic interpretation of dreams, the examination of the pulse, the doctrine of the three main channels of the second body of the seven centres of vital energy (*khorlo*) (Burang 1976, p. 21-22), the manipulation of the body by the healer with *prana*, it is not possible to explain here.

It is worth remembering that the study of Tibetan medicine is considered extremely difficult and that, before starting any specific medical course, thirteen years of study of the foundations of subject are required (Burang 1976, p.34). In addition, the Tibetan doctor, before being considered a valid healer must have completed twenty years of apprenticeship "(Burang 1976, p. 15).

The remedies used in the medicine of Lamaism are numerous and are mostly drawn from the animal and vegetable kingdom, and exceed ten thousand preparations (Burang 1976, p. 39). For heart disease gold powder, nutmeg, the asa foetida, and a mixture of sugar, camphor, Nying-sho-sha, and bear bile and Tibetan gang-chu are used. For liver disease riggerin of iron, cloves, cinnabar and copper powder are used.

In addition to medicinal preparations the Tibetan healer also considers the need to remove "the spiritual pride of the sick person" (Burang 1976, p. 49), the prescription of physical exercises, bloodletting (which is practiced in 77 distinct points) and the administration of substances that cause sneezing (Burang 1976, p. 51). In particular, at times there is recourse to Chinese acupuncture or moxa, but also at times even to extremely cruel treatment such as pouring boiling oil into an incision made near the affected area (Burang 1976, p. 54-55).

c) Ayurvedic Medicine

Ayurvedic Medicine is the traditional medicine of India, cultivated by the Brahmins, and its Sanskrit name means 'science of life' or 'science of longevity'. It has been practiced in the entire sphere of influence of Indian civilization, from Persia to Java, from Ceylon to Mongolia. The first traces of Vedic medicine date back to the period from 1000 to 500 B.C. The coherent Ayurvedic medical system was constituted 700-800 years before the birth of Christ. According to Ayurvedic teaching the medical art was created by Brahma, it is contained in

two treatises written by two great physicians, respectively, Caraka and Sushruta: The Carakasamhita and Susrutasamhita.

According to Ayurvedic teaching every living being is endowed with intelligence and everything that exists has a certain degree of spirituality. The matter of the human body, like that of the world, consists of five basic elements, called '*dhatu*': wind, emptiness, fire, water and earth. These combine with each other and thus form another seven '*dhatu*': chyle, blood, flesh, fat, bones, bone marrow and semen. The body has three categories of organic ducts: the *dhamanis*, the *sira* and *srotas*; the first two start from the navel and are respectively 24 and 700 (Huard 1981, p.. 21 -22). In the body there are also 107 'vulnerable points' that are considered as the locations of life energy.

The various functions of the body and spirit are governed by certain principles that are called *Doshas*. The chief among these is vital breath or *prana*, the others are *pitta*, which resides in the small intestine and governs digestion and body temperature, and *vata*, located in the colon, which provides the necessary energy for will and breathing, and *Kapha*, which is the cohesion and the balance of fluids.

Diseases are due to accidental causes or a disturbance of the balance between the elements responsible for the proper functioning of the organism (Huard 1981, p. 27). Alteration of one of the three *Doshas* causes alteration of the actions of the other two, thus giving rise to a large number of combinations of pathogens, which, according to a well-known text, correspond to 62 (Huard 1981, p. 27). Diagnosis is made through a careful examination of the patient which includes smelling the patient's odours, the tasting of his urine and listening to the sound of his breathing, bloating, the creaking of his joints, and alterations of the voice. An examination of the wrists, which is different from that practiced in Chinese medicine, the Indian doctor wants to recognize the disruption in the balance of *prana*, bile, and phlegm (Huard 1981, p.31). The prognosis on the course of the disease looks like an art of divination because it believes it can predict the course of a disease from the clothing of the person who has approached the doctor or from the direction of the wind blowing upon his arrival (Huard 1981, p. 33). In Ayurveda, hygiene and prophylaxis are particularly predominant: anointment, massage, oral cleanliness, and sexual hygiene are recommended and carefully described. Even diet has received much attention: barley, wheat, red rice, mango bean, lentils (Huard 1981, p.37), vegetable oils and fats of animal origin are recommended. Finally, milk would seem to appease the three *Doshas* (Huard 1981, p. 39).

Given the fundamental unity of nature, the Ayurvedic doctrine believes that even plants possess a certain degree of consciousness through which they connect with the entire universe. There is also a central organizing principle in the body, known as 'Aghi', which is also present in the rest of nature and especially in plants; this principle controls the metabolism and digestive function and, through these functions, confers health to the body. When food is not properly digested due to the presence of a weak 'aghi', toxins (*Ama*) are formed giving rise to disease. Medicinal herbs cure the sick body by transferring their 'Aghi' and with this the ability to digest substances that previously could not be fully transformed and assimilated.

The main aim of Ayurvedic treatment is to re-establish physiological balance, by restoring the balance of the *doshas*. To achieve this, Ayurvedic doctors use many types of treatments: diet, exercising, massage with

medicated oils, colour treatments, administration of herbs and mental techniques, including the main one that is transcendental meditation.

d) Reiki

Reiki is a technique of healing and self-healing that takes place with the imposition of hands on various parts of the body; it would seem able to heal by activating and amplifying the vital energy that is present in human beings. The discoverer of Reiki was a Christian monk living in Japan, in the nineteenth century he took up again a very ancient system of natural healing which dates back to Buddha. Reiki is learned through an initiation that takes place with the acquisition of three different levels of knowledge.

During the Reiki treatment, the latter seems to act on the four main 'bodies' of our existence: the physical body, emotional body, mental body and spiritual body "which is the part of us that seeks the Divine and is also the ability to love oneself and others "(Ancona 1996). During the treatment there is an emotional release: in fact, according to Reiki "the real cause of our physical and mental problems is a lack of affection in the past, which is somatised in our body." Reiki treatments are carried out by applying the hands on the locations of the seven main *chakras* of the body through which energy enters and exits our aura and our physical body "(Ancona 1996).

European Medicines

a) Homeopathy

It is the medical doctrine conceived by a doctor, Samuel Hahnemann, born in Meissen, (1755-1843). He conceived the idea that patients should be treated with drugs that produce, in healthy subjects, the symptoms which they complain of. The basic principle of this medicine was then summarized in the motto "similia similibus curentur" and was opposed to the principle upheld by Galen "contraria contrariis curentur" and for this reason Hahnemann called his own medicine "homeopathy" opposing it to therapeutic medicine in force at that period, which he called "allopathy." This principle was followed by the Saxon physician with a second one: for the action of drugs increased with the decreasing of the dose, the medications had to be diluted to low concentrations (the principle of infinitesimal dilutions) and administered to patients in very small quantities. In preparing the remedies the solution was to be agitated manually according to certain specific rules because this shaking would have 'boosted' the remedy awakening the dormant forces, and greatly increasing therapeutic power.

According to the homeopathic doctrine of Hahnemann the human body acts because animated by an 'immaterial vital energy' in all of its parts. Illness, therefore, seemingly is when this independent 'vital force' present everywhere in the body and immaterial is perturbed by the action of some pathogen". In other words, "diseases are not mechanical or chemical alterations of living matter and do not depend on a material pathogen, but they are only a spiritual and dynamic perturbation of life" (Organon p. 30). "Every disease is - indeed –

the effect of an immaterial power, that is hostile and which disturbs the vital, dominant, mysterious principle in the whole organism" (Organon, pag.99).

As for the sorts of diseases, the German doctor refused the then existing nosology and reduced chronic disease (miasms) to three: psora, sycosis and syphilis. According to homeopathic doctrine "psora is the fundamental, true determining cause of almost all other forms of disease, that are frequent and innumerable, and appear in pathologies as single, closed entities that go under the name of neurasthenia, mania, melancholy, epilepsy, seizures of any kind, scrofula, scoliosis and kyphosis, cancer, varicose veins, gout, haemorrhoids, jaundice, cyanosis, oedema, amenorrhoea, gastric, nasal and pulmonary hemorrhage, migraine, deafness, renal calculosis, etc." Therefore, the drugs, would not act due to their chemical characteristics, but thanks to a "spiritual force" that is "inherent in their very essence." "The crushing and succussion, in fact - wrote Hahnemann - develop internal, therapeutic and almost spiritual energies of the unrefined substances" (Organon, p. 148). Consequently, "all medicines cure, without exception, those diseases whose symptoms most nearly resemble their own, and leave none of them uncured".

After the death of Hahnemann his medical doctrine endured ups and downs and its spread was associated with strong contrasts and the emergence of different schools. Despite these disagreements all homeopaths have always recognized the substantial validity of the principles enunciated by the founder: the law of similars, infinitesimal dilution and dynamization.

While it is not possible to follow the many doctrinal ramifications of homeopathy, it is worth recalling James Tyler Kent, an American doctor who has studied in-depth the theory of the founder, stating that "human being, is formed by a triad of factors: will and intellect, which form a unit, vital force [which is] the minister of the soul, and, finally, the material body "(p. 49). In addition, "every true disease proceeds from inside the body towards the outside given that human being is immune to what proceeds from the outside toward the centre and therefore the centripetal movement is impossible" (p. 49).

Leo Vannier was instead the founder of constitutional homeopathy. In his opinion, human beings can be classified on the basis of body proportions and psychic characteristics, into three basic types: a) the carbon constitution, b) the phosphorus constitution, c) the fluorine constitution.

In more recent times other directions in homeopathy have been proposed: the direction taken by O. A. Julian inspired by dialectical materialism, the Argentinian school of T. P. Paschero and the Thomistic school of A.E. Masci. Others have also tried to promote, within the homeopathic medicine, the concepts of psychosomatic medicine and have relied on the latest scientific findings of psycho-neuro-immuno-endocrinology to justify Hahnemannian theories (Masci 1993). Others have tried to find relationships between homeopathy and psychoanalysis or have cited the notions of physical and chemical sciences (quantum physics, the notion of complexity), or a supposed theoretical crisis of medicine to give credit to the theories of Hahnemann.

As this is not the place for an adequate analysis of homeopathy, it is worth recalling that, on purely scientific terms, the theories proposed by Samuel Hahnemann at the turn of the eighteenth and nineteenth centuries are in stark contrast with the more consolidated knowledge of chemistry and with those of current physiology, pathology and pharmacology. On a clinical level, then, the existing works in international medical literature that show some effectiveness of homeopathic remedies are very limited in number and many of them are

guilty of obvious methodological flaws. A recent review of published works, organized by a company that produces homeopathic preparations (Guna Srl, Milan), has listed only 98 controlled clinical trials that provide information defined as 'valid and unambiguous', on the effects of homeopathic remedies. Of these studies 59 are from journals published in homeopathic milieu (journals or abstracts of Congresses on Homeopathy) or unpublished dissertations, and only 39 come from journals accredited by the medical community. Of these 39, 12 relate to pathological situations of scarce clinical importance, in which it is difficult to objectify actual clinical outcomes, such as rhinitis, flu syndrome, fibromyositis, distortions, irritable bowel syndrome, pharyngitis, diarrhoea in children, dizziness. In contrast, there are no reports of negative works as regards homeopathic therapies (Milani 2002).

b) Homotoxicology

Homotoxicology is a doctrine derived from homeopathy and designed in the 1930's by the German physician Hans Heinrich Reckeweg. He attempted to update the doctrine of Hahnemann making it compatible with the concepts of modern biology, and particularly immunology. Reckeweg started from the concept of '*homotoxins*', meaning by this term any molecule capable of causing damage to the body

According to the concepts of Reckeweg, diseases are due to the accumulation of toxic substances of the most varied nature in the tissues, internal or externally (homotoxins). In particular, some of these substances bind with other molecules produced by the body forming macromolecules that are deposited in the connective tissue and which over time, result in tissue damage or, sometimes, the formation of antigen-antibody complexes. Usually these homotoxins can be eliminated through the excretory system or thanks to a series of phenomena called 'the great defense system'. In these cases the physician should apply the principle of Hahnemann and administer the same homotoxin or 'similar' homeotherapy in a diluted form, albeit in an inferior quantity compared to the prescription of classical homeopathy. The anti-homotoxic would act as a stimulus, however, it is devoid of any toxic effect, and would mobilize additional defensive mechanisms that are directed first against the new toxin, and later against the natural homotoxins (John 1989).

The prescription of the appropriate homotoxin assumes that the physician has made a diagnosis and has judged the reactivity of the individual. Reckeweg also proposed a simplified approach proposing both medicaments consisting of several diluted pharmaceutical drugs, as well as the simultaneous use in the same preparation of many dilutions associated with the same remedy.

It seems evident that homotoxicology wanted to resume the thought of Hahnemann combining it with some current scientific notions and simplifying clinical practice. However, it seems equally clear that the concepts exposed by Reckeweg are quite generic and are not supported by adequate empirical evidence. In addition, the terms used by the German doctor are only apparently superimposed on the scientific concepts (toxin, antigen, antibody, defense reaction, etc.) bearing the same name; the processes that homotoxicology refers to have only a distant similarity with the actual phenomena talked about in biochemistry and immunology. Finally, as in homeopathy, clinical studies

carried out so far are lacking in terms of methodology and have been published only in magazines devoted to alternative medicine.

c) Bach flower therapy

The 'Bach flower therapy' is a therapy derived from homeopathy and thought conceived in 1930 by British physician Edward Bach (1880-1936). Bach was a medical bacteriologist and homeopath who on the assumption that all disorders arise for an interior imbalance that generates negative emotional reactions, proposed a system of curative system based on the administration of 38 flowers. Bach's pathological theory is strictly spiritual and was exposed by the author with these words: "Disease is neither a cruelty in itself, nor a punishment, but solely a corrective, a tool adopted by our own Souls and used to point out to us our faults: to prevent our making greater errors: to hinder us from doing more harm: and to bring us back to that path of Truth and Light from which we should never have strayed."

To heal diseases it is not necessary to fight the symptoms, but rather to inundate them with energy vibrations, harmonic, and superior which would dissolve negative states of mind like snow in the sun. "Flower bushes and trees of a higher order - Bach wrote - are due to the strength of their vibration, and increase our capacity to open our channels of communication with our spiritual selves, to flood our spirituality with the virtues that we need and with them to purify the deficiencies of character that are the source of our suffering." Bach, using intuition, identified 38 plants that corresponded to 38 spiritual concepts of man and that were equipped with divine healing virtues (Scheffer, 1997, p. 17). These plants must be collected in the wild and in places that are not contaminated by man, and in the morning on a sunny day. After the flowers have been collected they should be subjected to baking, filtered several times and transferred into bottles with alcohol where they will be preserved.

d) Anthroposophical medicine

Anthroposophical Medicine is a doctrine developed in the last century by the Austrian thinker Rudolf Steiner (1861-1925). To understand well this medicine it is essential to acquire knowledge of the principle notions of the philosophical and pedagogical doctrine on which it is based: Anthroposophy. For Steiner everything that exists is in some way spiritual: the spirit, in fact, is not limited to humans or possibly animals, but it is also present in plants and minerals.

In plants, special forces are in action, which anthroposophy calls '*etheric force*' or '*plasmatic forces*', which have nothing to do with the life force of the nineteenth century vitalists and become manifest only in the presence of water. These forces form the '*etheric body*' that is not accessible to our senses but is intimately united to the '*physical body*'. In animals, then, there would appear during embryonic development, from gastrulation, a new force – internalization - which constitutes a third element the '*psychic body*' or '*astral body*', which can act only through the gaseous element, i.e. air. Finally, man, for his ability of self-consciousness, is made of another entity that is the '*human spirit*' physically connected to a material substrate that is '*body heat*'. In short, man,

has the physical body in common with the mineral kingdom, the etheric body in common with the plant kingdom, the astral body with the animal kingdom, but man is the only one with an ego or '*human spirit*' (Bott 2000, p. 17). The physical body and the etheric body form the inferior complex, while the astral body and the human spirit make up the superior complex.

In humans - according to anthroposophic medicine – there is a tripartite body. This, in fact, shows a polarity that goes from above to below, dividing the body into a superior pole or cephalic in which light, sound, air focus, and in an inferior pole or limbs and in an intermediate region, consisting from the chest, which, for the movements of the organs it contains, is called '*rhythmic region*' and is the instrument of feeling and affectivity.

The state of health requires a balance between the upper pole and lower pole and, if one tends to prevail, the balance is restored by the rhythmic system and above all from the heart that "perceives what comes from above and what comes from below, and acts as a barrier that directs and channels the flow of blood in order to harmonize the two tendencies" (p. 24)

The state of disease, according to anthroposophical medicine, is always characterized by changes in the state of knowledge, while the state of health is characterized by a lack of awareness of what takes place in the organs. The causes of disease can not be identified by the study of cadavers carried out by pathological anatomy, because "the disease appears as a shift, as a preponderance of the astral forces on etheric forces" (p. 29). When this action of the astral body is extended and comes to affect the physical body, it produces '*deformations*' that are precisely the changes revealed at autopsy. If, however, "the etheric forces remain unused they can cause abnormal vegetative forces, proliferation, tumour formation"(p. 30).

As far as drug therapy is concerned, the introduced substances do not act by themselves, but through the energy they have to be a vector, to which the body must oppose its forces. In order for a substance to act the body must accept it"(p. 181); to achieve this, the body must oppose a reaction (p. 181) and "it is precisely by destroying the substances, opposing its forces, that the body is strengthened"(p. 184). In the words of Rudolf Steiner the body *homeopathises* the drug and the therapeutic effect (p. 185) is determined only by the extent of the body's capability of homeopathisation.

e) Pranothrapy

This therapy is difficult to classify, and is based on the imposition of hands on the body where the patient perceives pain.

Those who practice this therapeutic technique are often called *healers* or *pranothrapists*. They seemingly act "through personal means, resulting from congenital, natural faculty through the laying on of hands and other systems, transmitting at a distance, a therapeutic fluid produced by psycho-physical radiation" (Racanelli 1973, p. 35). In other words, the ability to heal through the laying on of hands is a *gift* that some people possess and that is not communicable to others in any way: it exists and can not be taught or learned.

According to one interpretation, "Bioradiant therapy" is "a transfer of energy biophysical, biopsychical, or biospiritual energy between two human stations" (Racanelli 1973, p. 68) and could thus be traced back to *animal*

magnetism invoked by Franz Anton Mesmer (1734 -1815). Of course none of these *energies* has ever attained the slightest experimental evidence.

According to a completely different interpretation, the effects described by pranotherapists, are not be due to a magnetic fluid, but are attributable only to a psychokinetic effect determined by the interpersonal, unconscious relationship that is created between the healer and the patient (Pavese 1990, p. 182).

Empirical Medicine

a) Phytotherapy

According to the definition given by Fabio Firenzuoli "herbal medicine is the treatment of diseases with medicinal plants and their derivatives, considering the necessary and essential premise of phytochemical and pharmacological research "(Firenzuoli 1993, p. 5).

In general thesis, herbal medicine does not have characteristics that lead us to consider it an 'alternative medicine' such as, for example, homeopathy or Tibetan medicine '. It applies methods of study and control that do not deviate significantly from those of scientific medicine and do not use concepts that lack empirical evidence. In fact, in the past, medicine has always used natural products from the plant kingdom and in the first half of 1800's with the studies of Francois Magendie and Claude Bernard herbal medicine broke away from scientific pharmacology (Federspil and Berti 1998, p. 299). In its orthodox version herbal medicine believes that " medicinal plants act as they contain natural chemicals pharmacologically active." In addition, many biochemical studies have elucidated the chemical composition of plants and in many cases have shown the clinical and pharmacological activity of substances extracted from plants. Of course this research and the gradual explanation of the mechanisms of action of plant products is far from complete and therefore herbal medicine in many cases still demonstrates that it is still in a phase of substantial empiricism (Murray 2003).

At this point, however, it must be made clear that, alongside this orthodox phytotherapy, there is another that is very different in nature, which systematically appeals to pseudo-explanations and / or explanations and systems of thought that have nothing in common with scientific knowledge . For example, in a recent treatise devoted to the 'comparative Phytotherapy' reference is made to traditional Chinese herbal medicine stating that the overall aim of the therapy is to: a) to regain the balance in the functions Zang Fu b) regain the balance of Yin-Yang, and that every disease manifests a specific trend: a) upwards (hiccup, cough), b) downwards (diarrhea), c) externally (sweating), d) internally (surface symptoms) (p. 83). In this discussion it is suggested to integrate the constitutional approach of Traditional Chinese Medicine and Psiconeuroimmunoendocrinology. This allows us to identify five fundamental constitutions: Wood, Earth, Fire, Metal, and Water, which meets defined psiconeuroimmunoendocrine characteristics (p. 99). Thus, for example, the Fire Yang subject "has a passionate, emotional, extroverted character, is red in the face with a proud, dominant aspect, is an inspired idealist, and in childhood may have suffered from seizures, fever, epistaxis, or epilepsy; his diseases are acute if not explosive "(Di Stanislao et al. 2001. p. 108).

Similarly, another treatise aims to integrate the knowledge of medicinal plants of the West, with Chinese medicine and Ayurvedic medicine. According to Chinese medicine it classifies medicinal plants based on the four natures, the five flavours, the four directions and the meridians involved. Instead, according to Ayurveda, it classifies plants according to energy (Virya), Tastes (Rasa), post-digestive effect (Vipaka) and specific Power (Prabbava) (Tierra. 1995 p. 37).

It is clear that until orthodox "phytotherapy" is well distinguished from those that mix with other alternative medicines, it is necessary to maintain an extremely cautious approach in evaluating the various practices that adopt this name.

b) Manual medicine

This expression refers to a group of different techniques based essentially on outside stimulation of the body by means of mechanical modes, such as massage, pushing, rolling, pressing, etc. Many therapeutic techniques are indicated by the name of '*bodywork*' and act improving muscle tone, circulation of fluids, posture. In principle the safe and non-invasive techniques act, probably also generating a state of mental relaxation that improves the patient's mood. Given the large number of techniques that are used it is difficult to make an analytical judgement on each one. But it deserves to be pointed out that many experts of manual medicine work using mixed techniques and applying together different methods of alternative therapies: thus, for example, it happens that a shiatsu session is completed by a few minutes of Cromopuncture, i.e. stimulation of reflex points with coloured lights (Speciani et al. 2001, p. 90)

In addition, physicians who perform manual therapy tend to apply one or the other technique based on the principles of Oriental medicine. Shiatsu, for example, is a Japanese massage that uses pressure on hundreds of points to stimulate "the flow of energy along the meridians in order to increase the natural healing powers of the human body" (Speciani et al. 2001, p. 91). *Eastern self-massage* is aimed at rebalancing the body's vital energy. *Chinese massage "Tuina"* is carried out in skin areas corresponding to the channels of acupuncture: so to exemplify, manipulation of point 20 BL Pishu seemingly acts on the spleen-stomach system to develop and assimilate acquired energy. The indications for these techniques are far reaching: to give an example of Chinese massage seemingly acts on the following disorders: neurasthenia, colds, gastroptosis, hypertension, depression, diabetes, diarrhea, constipation, bedwetting, hernias, obesity, headache, vertigo, lumbago, scapulohumeral peri-arthritis, amenorrhea, irregular menstruation, whooping cough, vomiting, sties, tinnitus, epistaxis, conjunctivitis, mastitis, infertility, distortions, hemiplegia, etc. (Corbellini 1999).

Other techniques that act outside the body are chiropractic and osteopathy. *Chiropractic* manipulation is one that tends to correct the malposition of the muscles and vertebrae, as this malposition "could interfere with normal nerve impulses and disrupt the transmission of energy from the brain to other parts of the body." *Osteopathy* is based on the assumption that "poor posture increases the possibility of creating imbalances in the vertebral column and, through the innervations that protrude from it, to all the connected

organs." The work of the osteopath aims to restore, with specific manipulative techniques, lost structural balance.

These techniques do not refer to esoteric theories or theories that can not be checked and, therefore, as there are no solid scientific foundations yet, they should be considered as empirical practices.

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