

A COMPARATIVE STUDY OF MEDICAL RATIONALITIES

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Summary

This paper reports the main hypothesis and the initial findings of an undergoing project of comparison of different medical systems, studied as medical rationalities, defined in terms of six dimensions: cosmology, medical doctrine, diagnosis, morphology, vital dynamics and diagnosis. The comparative study of four rationalities (Contemporary Western, Homoeopathic, Traditional Chinese and Ayurveda Medicines) yielded two different paradigms, one denominated vitalist or bioenergetic (shared by the last three) and the other termed biomechanical, specific to the first. Nevertheless, several similarities were noticed, specially when approaching actual therapeutic practice. The initial findings related to one of the rationalities (Contemporary Western Medicine) are presented in the closing sections of the paper.

1. Introduction

This paper describes the initial findings of a research project that started in 1991 with the purpose of performing a comparative study of four different medical systems (Contemporary Western, Homoeopathic, Traditional Chinese and Ayurveda Medicines), both in theoretical and practical terms. The closing sections of this paper also brings some detail, as an illustration, of the findings related to the first of them. The mainstay of this effort is an operational definition of medical rationality as a structured system of five components, or dimensions, as follows: a) medical doctrine; b) morphology; c) vital dynamics; d) diagnostic system; e) therapeutic system.¹ The core hypotheses of the study was that there is more than one medical rationality, and that the different rationalities that coexist within our culture may be compared to each

¹ Each of these dimensions will be described in detail further ahead; the definition of medical rationalities was structured as an **ideal type**, inspired by Weber's concept.

other without assuming, in an ethnocentric fashion, that one of them (usually the Western "official" Medicine) is "real" or "correct" and then just contrasting the others to it, enhancing the most unusual or "exotic" aspects of their theory and/or practice. This paper presents basically the findings related to the first phase of our study, that lasted until 1994.²

We were well aware, since the beginning of our research, of the complexity of these systems, developed over long time spans (literally centuries in the cases of Chinese and Ayurveda Medicines), riddled with internal contradictions, even in the case of Western Medicine. Dealing with them as if they were a solid block, without historical background or the subtle variations and changes that permeates each of them would be a crude oversimplification; on the other hand, our intention wasn't to retrace back in History the steps that led to the construction of each rationality, a task that belongs to Historians and Anthropologists and might as well consume their lifetimes.

Our objective was far more simple: we intended to **describe** the main attributes of the already mentioned dimensions of each of the rationalities **as they present themselves today, in our society**. This allowed us to avoid a recurrent pitfall in such endeavours, that of being lost in the mazes of trends and thought schools in different time frames or institutional settings. Putting in other words, as we focused the present, we were able to dismiss the lengthy - and tedious - argument of "*which medical rationality (of any of the four) is being discussed?*".

We we're not overlooking the fact that the present configurations of these systems were slowly built within the sociocultural framework that supports them, and in many ways they are the result of *collages* and patchworks originated from different

² The practical aspects are still being researched through several field studies, taking place in nine different outpatient units of the local (Rio de Janeiro) Public Health System.

cultural instances, throughout successive historical periods, cast into a theoretical-practical kaleidoscope that joins medical art and knowledge in an ingenuous logical arrangement which is not, however, fully subject to formal requisites of analytic nature. This fact is easily noticed when considering Eastern medicines, but we could, surprisingly enough, detect this sort of arrangement in the Western medicines, even the so-called "Scientific Medicine". In the West there's a tendency to assume knowledge originated from the sciences as **natural**, that is, it is dealt with as if it had no origins, or if these origins (historical, cultural, imaginary) didn't impregnate, **up to present days**, scientific knowledge (LUZ, 1988).

The notion of progress and superseding the past marked the scientific rationality through the last three centuries, implying the progressively dominant conception that the history of human knowledge is made of ruptures and turnovers, associating past with regression and future with innovation, being the present a temporary bridge between both. This is, evidently, an ideological conception, since in fact the "past", that is, the historical traces lived through and considered superseded, in a determinate moment of a specific knowledge-practice (medicine, in this case), never disappear completely, integrating into new procedures or theories in a subordinate fashion, in the latter case, or implicitly, in the former situation. Such traces form the kaleidoscope to which we referred to in the previous paragraph, thus establishing a theoretical-practical **continuity** between past and present within such knowledge-practice.

With these guidelines in mind, we got to the task of designing the basis for the comparative study of the already mentioned rationalities, which meant, in practice, a one-year period of preparation during which we researched thoroughly several sources of information on the theory, practice and history of each of the studied rationalities.

During this period we sketched their portrait in terms of the basic description of a medical rationality, comprising the following axes or dimensions:

1. **Medical doctrine**, meaning the general conceptions about health and disease, healing, the practitioner's role, and so forth;

2. **Morphology**, that is, the general description of the human body(ies)³ and its(theirs) structures;

3. **Vital dynamics**, or the conceptions about the functionality of the body(ies) in question (what would classically be termed "Physiology" in Western Medicine, but we intentionally avoided this term due to its intimate connection with one of the rationalities under study);

4. **Diagnostic system**, comprising the diagnostic conceptions, practices and tools;

5. **Therapeutic system**, which, in analogy to the latter, included the set of conceptions, practices and tools closely connected to the therapeutic acts.

In the last two cases, the word "conception" refers to those closely related to actual practice, and not the more general ones, closer to a sort of worldview, that are referred to in the first item.

Early in the research we realised that these dimensions were actually based, even if implicitly, in yet another, unaccounted in the initial design of the study, which we named **Cosmology**. The choice of this particular term may lead to a certain confusion in this case, since we're not referring to the branch of modern Western Physics also designated by this word, but rather, anthropologically-wise, to the general conceptions of the world around us, ethical values, shared with the whole of a given culture that shape in many ways the other five dimensions. This dimension

³ The plural may sound odd, but to most of the rationalities there are more bodies than **the** body of Western culture.

determines what is to be accounted for as an "objective data", what are the adequate research tools, so to speak, and so for, that form the general framework from which the rationalities emerged. Although this might seem rather obvious in the case of non-Western medicines, which refer in very explicit ways to their original cosmologies, even in the Contemporary Western Medicine we were able to find an implicit link to the general conceptions of classical (mechanic) Physics.

This perception drove us into an epistemological issue, that of dealing with the apparent opposition of the idea of rationality and its relation to cosmologies that were in every other case except that of Western Medicine of a religious nature. We were until then working with a Weberian conception of rationality that was very close to that of "**scientificity**", something cut apart from religious or even philosophical thought systems. The finding that each of these complex medical systems is founded in some sort of cosmology, and that the latter, in turn, is the expression of metaphysical (religious or not) conceptions, forced us to deepen an aspect not foreseen in the original project.

This conceptual framework allowed us to produce a synoptic comparison table of the four rationalities (which will be presented further down this paper), and to identify common traces in all these rationalities, as was originally sought by the project. We noticed pretty soon that any comparison would be straightforward impossible in terms of **cosmology**, and at least extremely difficult as for the **doctrines**. Due precisely to their deep roots in the cultures that originated the several rationalities, any comparison would tend only to underline differences and oppositions. On the other hand, it also became clear that as we got nearer of actual practice, as reflected by the diagnostic and therapeutic dimensions, the similarities became more evident and numerous.

In terms of broad categories, we noticed two different paradigms that helped the subsequent work. In one hand, there is what we called a **vitalist** or **bioenergetic** paradigm, common to the Homoeopathic, Chinese and Ayurveda Medicine, opposed, in the other hand, to a **biomechanical** paradigm, characteristic to Western Medicine. This leads to a fundamental difference in terms of objects and goals, between the "vitalist" or "energetic" and Western medicine. While the latter has the diseases as an object and the fight against them as a goal, the other medicines have the unbalanced individual as their object, and their goal is the recovery, or even enhancement, of their health.

In the first case, the core categories are **disease**, **pathology**, **normality** and in the second they are **health**, **equilibrium** (as a synonym to harmony), and **disharmony** (of subjects/individuals). In the first case the medical system tends to display itself as a **science of diseases**, in the second, as a **healing art**.

2. Medicine as an active synthesis of science and art.

The medical rationality, whichever paradigm it belongs to, has been historically characterised as a synthesis within a professional activity (**praxis**) of healing art (**tekné**) and knowledge of diseases (**gnosis**, **episteme**). The History of such activity is, perhaps, as ancient as Humanity itself, and through thousands of years there wasn't, apparently, any split between knowledge and art in the **praxis** of this social mediator between men, suffering and death. The origin of medical knowledge was **sacred**, and in his personal, **lived through** experience, which included specific forms of socialisation and a training of esoteric nature, the practitioner synthesised **episteme** and **tekné**. Until two and a half millennia ago, both in the East and the West, that is, either in Greece or China or India, the knowledge-practice of the

practitioners had a strong connection to sacerdotal functions; the nature of their knowledge was basically philosophical (be it religious or not).

In the History of the last two thousand five hundred years of this civilisation, typical cultural changes related to the medical rationality took place, giving Western Medicine its *sui generis* character. These changes amounted sometimes to important crises, that meant ruptures with prevailing patterns and deep consequences to the **episteme-tekné** synthesis mentioned before. There was a progressive separation between the two terms that constitute the kernel of any medical system, that is, the knowledge of diseases and the healing art, which was not followed by Eastern medicines. A clear-cut distinction emerges in modern knowledge, that seeks scientific status as a truth ideal since the XVII century. In this context, Western medicine may be seen as a specific medical rationality, inserted in a similarly specific cultural History, the **Western Civilisation**.

The case of Homoeopathic medicine in the XIX Century is a bit more complex, since it, albeit being a Western production, kept part of the traditional Western cosmology, even implicitly, with its pre-Christian and Christian roots.

3. Crises and mutations in Western medical rationality.

We'll discuss further ahead Western Medicine into more detail, as an example of the findings of the first phase of the project; for now, we'll present a brief overview of the historical turning points that place this Medicine clearly apart from the others in this study.

The first of such crises took place during what we call the **hypocrathical period** (as opposed to **hypocrathical school**, as it's usually designated), which comprised several medical schools, and spanned over a century. During this period medical thought assumed a strong tendency to rationalisation (opposing the magical

and/or shamanic healing practices), to establish theories on diseases and therapeutic methods, and to speculate about the roles of philosophy and nature in medicine as a theory and practice (art) of healing. This was also accompanied by the strengthening of the role of the medical corporation as the carrier of philosophical knowledge on diseases and diseased people, with a strong *esprit de corps*, met with opposition from other segments of the society - as is witnessed by Aristophanes' caricatures of medicine men in his plays. This moment signals the beginning of the movement of Western medicine towards **science**, that is, becoming a systematic pursuit ways to classify symptoms, diseases, syndromes, and seek causal explanation of such phenomena. Even then, however, the healing powers of Nature (*vis medicatrix naturae*, as was later called in Latin), were still acknowledged.

The second turning point can be located between the end of Renaissance and the beginning of Modern Classicism, that is, between the XVI and XVII Centuries. The basic scientific disciplines in medicine, such as Anatomy, Physiology and Pathology, begin their build up process, and the ideal of structuring medical knowledge in scientific terms overcome the knowledge about diseases as a result of the experience of healing people, that is, **episteme** becomes more important than **gnosis** and **tekné** (LUZ, 1988). The ascent of science as a legitimate - and ultimately **legal** - process of producing knowledge is a cultural fact with far more implications than just an internal reworking in medical knowledge/practice. From our point of view, the transformations in medicine express and illustrate a process that took place in the West since Classical Greece but increasingly and more deeply with modern capitalism, as was pointed out by philosophers, historians and sociologists such as Max Weber, one of the theoretical references in this study.

As a result of this process, medical knowledge became progressively concerned with the theories of disease, with a corresponding decrease in status of the healing arts. In terms of the dimensions of the rationality, diagnosis acquired progressive hegemony over therapeutics; even the latter became increasingly oriented by the systematic search for and combat against diseases.

The third crisis correspond to the moment, examined by Foucault in his **The Birth of Clinic**, when the formal basis of contemporary medical clinics, centred on pathological anatomy, was firmly established. Death becomes the revealing device through which diseased bodies give away their secrets. Another important aspect is that, as this practice was more than ever concerned with disease and death as **collective** phenomena to be fought against, the new clinic that emerges by the end of the XVIII Century is, from its birth, **social medicine** as well, as the same Foucault pointed out (FOUCAULT, 1978 and LUZ, 1988).

Hospitals become increasingly the centres of medical experimenting and learning; correspondingly, medical teaching shifts progressively from medical schools, confined to the "basic" disciplines (such as anatomy, physiology, biochemistry and so on), and some of the theoretical aspects of medical disciplines.

In this context, which began by the end of the XIX Century but gained momentum already in this Century, soon after World War II, we notice a fourth critical step in the shaping of contemporary Medicine, corresponding to a rupture in medical **practice**; the ever increasing intervention of medical apparatuses further widened the already existing gap between doctors and patients, leading to a major disruption in millenary medical/patience relationship patterns.

Summarising, we could point out three ruptures within contemporary medical practice in the West: that between the science of disease and the healing arts; that

between the diagnostic and therapeutic practices; and, finally, that between doctors and patients. This triple rupture consists, in our view, one of the socio-anthropologic explanations of the great demand for other medical rationalities, configuring the flourishing in Western society through the last twenty or so years of the so-called "alternative medicine", or, more recently, the "paradigm crisis of medicine".

4. Medical rationalities and "alternative therapies"

Despite the radical differences in their systems, in recent years medical practice in Western countries has displayed a clear trend to assimilate therapeutic techniques of other rationalities. Although this assimilation has been achieved in many cases at the expense of mechanical incorporation of certain aspects of a complex and integrated system, otherwise rejected, this also goes to show that when considered in terms of actual procedures the differences tend to wane.

This does not mean that they disappear; while non-Western and Homoeopathic medicines rely heavily on the conception of man and women as integrated within themselves and also with nature, this integration is considered irrelevant - that is, non-existent for practical purposes - to scientific knowledge in Western medicine. The other three medicines, on the other hand, view disease as a result of some imbalance, a rupture in harmony, of a certain cosmic order in motion, which includes human beings as both expression and element; the absurd, then, would be **not** to take into account these elements in medical practice. These rationalities rely more on analogical, as opposed to analytic, reasoning, and general principles of similitude and sympathy such as Foucault describes in **The Order of Things**, are dominant, while in Western culture this status belongs to the principle of difference.

In any case, the rationalities display considerable parallelism and even convergence, despite their deep differences, when the actual diagnostic and

therapeutic practices are compared, specially the latter. We could presume that once the immemorial goal of medical practice - healing the sick - is put into action, therapeutics assume the main role, the differences in doctrine are set aside, and there is a clear opening to other practices, especially in Western medicine.

As to diagnosis, the similarities are more evident when considering the rationalities that share a vitalist paradigm (Homoeopathic, Traditional Chinese and Ayurveda Medicines), since they share the same object - the sick person, as opposed to a disease - and the same goal, to heal the individual, re-establishing or expanding his/her health. Moreover, their respective cosmologies are similar in their views of human and natural as integrated domains, and also of a fundamental integration of natural and spiritual (supernatural) aspects in human existence.

Other diagnostic elements of symptoms, qualitative data such as duration, intensity, mode, laterality, rhythm and so forth, in several planes (organic, sensorial, emotional and spiritual), are greatly valued in the diagnostic systems of these medicines, originating a detailed and rich semiology, with a wide range of examining techniques. The similarities with Western medicine are few, but still exist; the traditional, low-tech, physical exam has many resemblances to these techniques, even if with different goals.

The vital dynamics are also more closely related when considering the rationalities oriented by the bioenergetic paradigm, which regard **life** as both movement and energy, power or force. Since Western medicine left vitalism far behind in its history, the dynamics in this case is, once again, disease-oriented.

Finally, the morphologies express greater differences, having different references to the human body but also with a deep difference in the conceptions of **body**. The traditional medicines include in the latter category the notion of energetic

body(ies), such as the meridian channels and points of Chinese medicine, or the range of bodies from the most subtle to the most "coarse", or dense, in Ayurveda medicine, or even with the implicit notion of a vital force inherent to the organic system, in Homoeopathic medicine. The definition of organs and systems are much different, expressing different cultural contexts and their respective symbols; analogies and convergences, however, may be pointed out even in this aspect.

A comparative table of the dimensions of the four rationalities follows, as a synopsis of what the first phase of research produced.

TABLE I - SUMMARY OF THE COMPARATIVE ANALYSIS

MEDICAL RATIONALITY	COSMOLOGY	DOCTRINE	MORPHOLOGY	VITAL DYNAMICS	DIAGNOSIS	THERAPEUTICS
Contemporary Western	Classical (Newtonian) Physics (causality) Implicit	Causal theory(ies) of disease and its defeating	Organic systems (macro and micro)	Patophysiology and system physiology	Semiology; anamnesis; physical exam; support exams	Drugs; surgery; hygiene/ prevention
Homoeopathic	Traditional Western (Alchemy) and Classical (Newtonian) (dynamics)	Vital force and its imbalance in individual subjects	Material organism (systems) and vital force	Energetic physiology (implicit) System physiology Patophysiology of drugs and illnesses	Semiology and anamnesis of individual imbalance Diagnosis of drug and individual illness	Drugs; hygiene
Traditional Chinese	Chinese Cosmogony (Microcosm generated from Macrocosm)	Yin-Yang and the Five Phases (or Elements) and its equilibrium (or harmony) in individual subjects	Meridian channels and acupuncture points (subtle body) Solid and hollow organs	Vital "breath" (Qi) physiology Organ physiology Yin-Yang dynamics within the organism and related to the environment	Semiology and anamnesis of Yin-Yang imbalance Diagnosis of subjects' imbalance	Hygiene; exercise (martial arts, meditation, etc.); diets; phytotherapy; massages; acupuncture; moshu
Ayurveda	Indian (Microcosm generated from Macrocosm)	Five Elements and Humoral Constitutions (Tridosha) in individual subjects	Several bodies (dense and subtle) Constitution of vital tissues, organs and senses	Energetic physiology (circulation of Prana and other energies within several bodies) Tridosha balance	Semiology and anamnesis of Tridosha imbalance Eight Point observation system Diagnosis of subjects' imbalance	Diets; purifying/ eliminating techniques; exercises (Yoga, meditation, etc.); massages; phytotherapy; drugs (substances of vegetal, animal and mineral origin)

In other words, those rationalities are **comparable** in their dimensions (even if not fully subject to complete translations from one system to the other), opening the possibility of establishing criteria to assess effectiveness adequate to each of them, that is, not subject to the usual reductionism to one rationality culturally and politically dominant, while retaining, on the other hand, the possibility of comparative studies. This has been the subject of the most recent steps in the research project; for now, we will present in the final pages of this paper an outline of one of the studied rationalities in terms of the defined categories.⁴

5. Contemporary Western medical rationality: an outline

⁴ The same method was applied to the other three rationalities; due to reasons of space only one will be presented here. This work was published by the Instituto de Medicina Social, Universidade do Rio de Janeiro; see LUZ, H. S., 1993; LUZ, D., 1993; MARQUES, E. A., 1993.

As was stated earlier in this paper, the beginning of modern medicine may be seen as a particular case of the deep cultural changes that affected Western culture in the passage Renaissance to Modern Classicism, frequently referred to as the "Scientific Revolution".

It is not within the scope of this work to present a detailed account of this process, that in one sense hasn't yet finished, spanning across near four Centuries. We'd like just to point out some aspects of this process that had deep effects in conforming medical theory and practice to their present configuration. First of all, the social arrangement based on a theologically centred worldview gave way to a scientifically centred one; in our days, stating that something is "scientific" is usually meant (and understood) as a synonym to being **true**. It thus follows that the main source of legitimacy in our society (at least in terms of discourse) is the world of Science; it is a logical consequence that medical knowledge would seek to be more and more "scientific". In broad terms, the model of science that emerged from the already mentioned revolution takes classical (galilean/newtonian) physics as a model of scientific production of knowledge; this rationality could be summarised in three main propositions:

- it seeks the production of discourses with universal validity, proposing models and laws that are generically applicable, not taking into account particularly cases. It is, then, **generalising**;

- the aforementioned models tend to naturalise human construction, therefore reducing the Universe to a gigantic machine, subordinated to principles of linear causation that can be translated in terms of composing mechanisms. It is, also, **mechanicist**;

- the theoretical and experimental approach derived from the previous principles are adopted to elucidate the "general laws" of the functioning of the "universal machine" determine proceedings that isolate certain parts of studied processes, assuming that the workings of the whole is given by the summation of parts. It is, finally, **analytical**.

Needless to say, modern science has somewhat overcome these conceptions, at least in the leading areas of research. We contend, however, that the cosmology of Western medicine is deeply impregnated with these already dated conceptions about the world around us and how one should proceed to understand it. The main problem here is that such conceptions are for the most part implicit, making it difficult, sometimes, to elicit them.

Another source of difficulty is the fact that, being hegemonic in our society, and given the tendency that our culture has to "forget" the history of scientific creations, additional effort has to be made not to regard the constructions of Western medicine as "natural" or "real"; once again, anthropological reasoning, if not methodology, comes to our rescue.

The final sections of this paper will give a brief description of this rationality in terms of its other five dimensions, since its cosmology was already presented here.

6. Medical doctrine

Generic medical theories, on their side, tend also to be implicit and even contradictory. Old and new conceptions live together in the patchwork that makes up medical knowledge, and the relation of the latter to actual practice is far more contingent than the average doctor would like to admit. As was stated before, the formal aspects of medical theory are in a sense far apart from therapeutics in concrete situations.

The role of a general theory of medicine could be summarised in a restricted number of propositions, equally implicit, that might be referred to as a "theory of diseases": diseases are natural entities, with little or no variation in different times and places, expressions of lesions which in turn are caused by some biological agent, or an agent that exerts biological effects on the human body.

Two other important - and complementary - aspects in medical discourse are the ever recurring reference to "multicausality" on one hand and to three domains that supposedly would encompass the whole of human experience, expressed by the adjectives biological, psychological and social, frequently collapsed into a single word: biopsychosocial. The rather naive conception that the fragmentation of objects intrinsic to modern science could be reverted by a linguistic is not enough to disguise the preponderance of the "bio" term and the reduction of multiple causes to single really important ones, that should be subjected to concrete medical intervention - meaning either surgery or drugs, far more valued than any other type of intervention.

It is a paradox, however, that despite the general aspiration to scientific status, the individual experience is a shared value in the profession; the tension between the generalising discourse and individualised practice is just yet another example of the numberless contradictions that permeate the medical field.

7. Morphology

The main conception is the assimilation of the individual to his/hers body, or in a more appropriate term, organism. The human body is perceived as naturally organised in discrete units, grouped in several systems. Three disciplines are related to this field: anatomy, histology, and pathological anatomy. The historical development in this dimension has been from macro to microscopic level, currently reaching atomic components of organic molecules and their arrangements.

8. Vital dynamics

This comprises mainly physiology, patophysiology, immunology and biochemistry (and, possibly, genetics as well), disciplines that are more directly related to the experimental method.

Some conceptions form a common core in this dimension: the notion of an internal environment, isolated from the exterior by epithelial barriers; the regulation within relatively narrow tolerance limits, known as homeostasis; the conception of life as a summation of biochemical and biophysical interactions.

The picture that emerges from these conceptions is strongly connected to systems theory; the maintenance of homeostasis is described in terms of regulatory mechanisms connected through several feedback loops; this is a contemporary view in scientific terms, that coexists with the classical rationality described before.

9. Diagnosis

It is constituted by a diverse set of techniques collectively known as semiology. It is performed through certain pre-established steps that comprise anamnesis (medical history), followed by the physical exam, which in turn consists of four items - inspection, palpation, percussion and auscultation - systematically applied to every body component. This is usually followed - sometimes substituted - by an ever growing series of tests.

The core discipline here is medical clinics, that performs two basic operations: the gathering of medical data (through the semiological techniques described), and the placement of these within the conceptual grid of the known diseases. Although theoretically these two moments are separated in time and necessarily follow the order in which they were described, in actual practice there is a wide intertwining of both; diagnostic hypotheses arise pretty soon, influencing the collection of data itself.

Another noteworthy aspect is that the already mentioned conceptual (nosological) grid is the result of a common enterprise that joins clinics and epidemiology in a curious alliance: each of these two disciplines overlooks the internal workings of the other, resulting that constructions from one field are apprehended by the other as "natural facts": the clinical descriptions of diseases are assumed as hard facts in epidemiological investigations, and the epidemiological findings about the same diseases are integrated into the clinical description as additional clinical evidence, as can be witnessed by browsing any modern manual of medical clinics. This peculiar vicious circle lies beneath the formal description of every diagnostic category.

10. Therapeutics

Western medicine does not hold general principles in therapeutics; the actual intervention is specific to each of the diseases figuring in its catalogue. Although theoretically several different techniques should be used, like physical therapy, diets, exercises, they do not share the same status that the "real", hard-core interventions - drugs and surgery - hold.

It might be argued that a general principle, inverse to Homoeopathy's *simillium*, does exist, since the therapeutic intervention aims to combat diseases; but when examined closely, there is a wide diversity, since while some agents are indeed devised as contrary to postulated agents of disease, such as antibiotics in the case of bacteria, there is a wide gamut of situations when the intervention aims the enhancement and/or regulation of some body function, or even uses what might be regarded as "identical" agents, such as with immune therapy.

11. The structure of a disease

In several places through this paper we sustained that most of the general theories in Western medicine are implicit, being defined for particular cases such as

the description of individual diseases; as was also stated before, this can be observed browsing through any contemporary medical textbook; although the description of individual diseases is detailed and abundant, usually a very simple question remains unanswered: what is a disease? This can be observed even in the world-wide used catalogue of diseases, WHO's International Classification of Diseases (ICD), currently in its tenth edition: although a thorough and exhaustive listing of every disease known to man is presented, a general definition of what is a disease is not even attempted.

This does not mean that such definition does not exist, and the purpose of this final section is to present a conceptual framework for the construction of diagnostic categories⁵, summarised in the table below.

⁵ A detailed account of this model and its application to the study of the emergence of a specific disease in recent times, AIDS, was the object of the doctorate thesis of one of the authors (CAMARGO JR., 1994).

TABLE II - THE STRUCTURE OF A DISEASE

ELEMENTS	AXES	EXPLANATORY	MORPHOLOGIC	SEMIOLOGIC
Discipline-type		Patophysiology	Pathological anatomy	Medical Clinics
Core category		Cause	Lesion	Case
Definition of disease		Process	Expression of lesion(s)	Semiologic gestalt
Characteristic method		Experimental	Descriptive	Indiciary/ observational
Historical period		Second half of XIX Century	End of XVIII/ beginning of XIX Centuries	XVIII Century

The first axis corresponds to the characterisation of diseases as processes, possessing one or more causes and a "natural history". It's in this axis that medical knowledge comes nearer the hard sciences, in the biological domain.

The second axis relates to the description of characteristic - pathognomonic - lesions, arising from the transition described by Foucault in his **The Birth of Clinic**. It must be noted, however, that the concept of **lesion** mutated through time, migrating from relatively large structures, visible to the naked eye, to ever diminishing portions of the human body; currently many lesions are described at the molecular level. Taking this into account, the laboratory instruments and tests used as part of the examining process are part of this same axis, and it might be said that an altered result may be seen, in this context, as a logical equivalent of a lesion.

Finally, the last axis describes diseases in terms of clusters of signals and symptoms, configuring semiologic **gestalts**. Characterizing this axis in the present moment is no easy task, since the semiologic definitions of disease are deeply intermixed with the preceding axes. It must be remarked, however, that the nosological grid - today best represented by the already mentioned ICD - precedes the last in centuries. Medicine is still classificatory, and the taxonomic system that existed in the past became the terrain in which the anatomoclinical descriptions developed. It

is clear then that this axis comprises two different dimensions: in one hand, the individualisation of single cases, using techniques described by Ginzburg as an inductive paradigm to sketch a specific semiologic **gestalt**; on the other hand it also implies a generalisation, fitting the studied case into the aforementioned nosological grid. This, in turn, was developed conjointly by medical clinics and epidemiology, as was described previously.

The order in which these axes were presented is not casual; in effect, they are displayed in a decreasing order of valuation, in "scientific" terms, since it is this value that lends social legitimacy to Western medicine. On the other hand, in terms of actual practice, this order is reversed, and the clinical method prevails, illustrating, once more, the separation between the science of the diseases and the healing art.

Bibliography

Camargo Jr., K. R. (1992) "(Ir)racionalidade médica: os paradoxos da clínica" *Physis*, vol. 2(1):203-228

Camargo Jr., K.R. (1993) "Racionalidades médicas: a medicina ocidental contemporânea" *Série Estudos em Saúde Coletiva* no. 65, IMS/UERJ, Rio de Janeiro

Camargo Jr., K.R. (1995) "Racionalidades médicas: a medicina ocidental contemporânea" *Cadernos de Sociologia*, Porto Alegre, V.7, pg. 129-150

Camargo Jr., K.R. (1994) As ciências da AIDS e a AIDS das ciências. Editora Relume-Dumará, Rio de Janeiro, 1994.

Coulter, H. (1982) Divided legacy. (3 volumes) North Atlantic Books, California.

Fleck, L. (1979) Genesis and development of a scientific fact. University of Chicago Press, Chicago.

Foucault, M. (1966) Les mots e les choses. Gallimard, Paris.

Foucault, M. (1978) O nascimento da clínica. Forense-Universitária, Rio de Janeiro. (portuguese translation from La naissance de la clinique)

Foucault, M. (1972) La arqueología del saber. Siglo Veintiuno, México. (Spanish translation from L'archeologie du savoir)

Ginzburg, C. (1989) "Sinais: raízes de um paradigma indiciário" in Mitos, emblemas, sinais. Cia. das Letras, São Paulo

Luz, D. (1993) "Racionalidades médicas: medicina tradicional chinesa" *Série Estudos em Saúde Coletiva* no. 72, IMS/UERJ, Rio de Janeiro

Luz, H. S. (1993) "Racionalidades médicas: a medicina homeopática" Série Estudos em Saúde Coletiva no. 64, IMS/UERJ, Rio de Janeiro

Luz, M. T. (1988) Natural Racional, Social: Razão médica e racionalidade científica moderna. Campus, Rio de Janeiro.

Luz, M. T. (1993) "Racionalidades médicas e terapêuticas alternativas" Série Estudos em Saúde Coletiva no. 62, IMS/UERJ, Rio de Janeiro

Luz, M. T. (1994) A arte de curar e a ciência das doenças: sócio-história da Homeopatia no Brasil. Rio de Janeiro (thesis for the admission as full professor at the Instituto de Medicina Social, Universidade do Estado do Rio de Janeiro).

Luz, M. T. (1995) "Racionalidades médicas e terapêuticas alternativas" Cadernos de Sociologia, Porto Alegre, V.7, pg. 109-128

Marques, E. A. (1993) "Racionalidades médicas: medicina ayurvédica - tradicional arte de curar da Índia" Série Estudos em Saúde Coletiva no. 75, IMS/UERJ, Rio de Janeiro

Unschuld, P. (1985) Medicine in China - as History of ideas. University of California Press, Berkeley

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