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A CRITIQUE OF THE BIOMEDICAL MODEL:

The clash between physician and patient expectations

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ABSTRACT

Biomedicine evolved from art to science. Based on the science, biomedicine built its culture. The scientific biomedical culture cannot cope with individual needs expressed during a consultation. The doctor-patient relationship, more than a simple encounter where biomedicine can flex its muscles against a disease, is the expected moment where the patient's illness will be alleviated. The scientific construct "disease" has no correlation with the social construct "illness". Doctor and patient are, therefore, not in opposing fields but in different universes.

It is time for a paradigm shift.

RÉSUMÉ

La biomédecine a évolué de l'art vers la science. Axée sur la science, la biomédecine a construit sa propre culture qui n'est pas capable de faire face aux besoins individuels exposés par le patient pendant une consultation. La relation médecin-patient, plus qu'un rencontre don't la médecine s'exercite pour contrer la maladie, est le moment attendu par le patient pour le soulagement de son mal. Or, le construit scientifique "maladie" n'a aucune relation avec le contruit social "mal". Ainsi, médecin et patient ne sont pas dans des camps opposés mais plutôt dans des univers distincts.

Il est temps d'un changement de paradigme.

ACKNOWLEDGMENT

I am a storyteller, and most if not all my tales are inspired by my observations of the world I live and people I met. This paper is one more of my tales. This time it is not a fable or a metaphor; it is a description of my beliefs and truths.

This monograph is the result of more than twenty years of medical practice in intensive care unit and in HIV-AIDS care centers, as a physician and as an instructor. In addition, it is the result of almost fifty years of living with very interesting people. Here I want to acknowledge all them: Relatives and strangers, friends and foes, professors and students, authors and readers, patients and doctors, each and every one of them collaborating with an inestimable part. This would be a radically different paper if one single person was not met.

Thank you all.

To R. T. U. and V. with love.

I wish to express my gratitude to some of the many persons that in a way or another helped me with the preparation of this monograph: the staff and librarians of the McGill libraries, in special Ms. Diane Philip of the McLennan Library, Ms. Mary Simon and Mr. Wayne LeBel of the Osler Library of the History of Medicine, for their assistance in my research; and my supervisor, Prof. Edward W Keyserlingk, for putting me on the right track and teaching me how to express my ideas more clearly.

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INTRODUCTION

During my professional life as a physician and during the elaboration of this dissertation, I had the opportunity to meet, read and study many dissenting voices about the current status of biomedicine. Some disagree with the biomedical model, others with the way research is designed and performed. Some authors complain about the way the professionalization process developed. Many object to the manner by which professional power is exerted. Even if biomedicine brandishes its results in its defense, some argue that such results may be questioned as such, or may be credited to other domains. Despite so many critics, biomedicine is still evolving in the same way that it has been for decades, if not centuries, with the same model, methods, philosophy, culture, ideology, politics, and aims. The biomedical system is so powerful that it absorbs all criticisms without deviating from its path.

This monograph demonstrates the need for structural reforms in biomedicine. My criticism will be supported by an analysis of the roles, models and mutual use of bioethics and biomedicine. Furthermore, the bioethics instrument, which was designed to be a regulatory tool, will be examined in terms of its validation of the biomedical model.

This paper is also about oppositions. These oppositions are generated by the manicheistic character of health related issues and result in a shock of values and ideas. For example, Thomasma and Pellegrino noted eighteen years ago that most of the articles on medicine and ethics dealt only with specific issues of bioethics and that foundational issues were rarely examined. They argued that medicine promotes health while Whitbeck, in the same year, 1981(a), said that this health promotion was a misconception.

If the doctor-patient relationship could be reduced to the crudeness of Western Cartesian science, this paper would have no reason to exist, but a doctor and a patient do not function as a closed system during a consultation. The doctor-patient relationship is also the product of external processes, since a doctor and a patient must frequently interact with the external environment to complete the consultation or treatment.[1] The flow of information and ethical issues such as consent, disclosure, truth telling, and autonomy easily fit into the model of an open system. An ideal professional behavior can also be drawn into this context, based on the most valuable precepts or beliefs of the moment or of the author.

I have to cite here Ivan Illich and Thomas Szasz, in my opinion two of the most important supporters of individual responsibility and personal freedom in health promotion and maintenance. They argue that organized medicine inhibits the individual ability for self-caring. In their view, the patient should have absolute autonomy. My points of agreement and disagreement with their positions need not to be discussed here since they advocate a new vision of the current biomedical paradigm and I support the need for a new paradigm altogether. Likewise, some criticisms about the methodology of science, such as those developed by Paul

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[1] If this relationship were a closed one, we could expect a progressive decay on the amount of energy (information) exchanged (Morowitz, 1978); however, what occurs is the opposite: a gain in information.

Feyerabend, do not require further analysis in this paper, since biomedical methodology is here only relevant for its consequences, not for its design.

In this paper, a short overview of the history of biomedicine will be followed by a description of some cultural aspects of biomedicine. Then, the dialectic character of health related issues will be explored as a tool to introduce bioethics. The clinical encounter between a healer, the physician, and the help seeker, the patient, will also be analyzed. A simple and short hypothetical case will be offered as an illustration for the concepts that are introduced in this paper. After examining the consequences of the clinical encounter, I will present a short discussion about beliefs. Bioethics will be reintroduced, but this time as a paramedical profession. Considering bioethics as such, the discussion will be, consequently, centralized in clinical bioethics. Finally, the current biomedical model will be discussed and some conclusions, strongly influenced by Khun, will be drawn.

Chapter One:

ABOUT ONE AND MANY PROFESSIONALS

Our bodies are silent. Normally we do not feel the physiological functions that are taking place in them. Furthermore, we do not have any control over most of them. Everybody, in a certain moment of his or her life, will feel something different. It may be a faster heartbeat, bowel sounds or movements, tremors, cramps, pains, and surely, this will cause discomfort. However, people react to discomforts very differently, while some ignore them, others may despair. When abnormal feelings about our bodies reach a threshold, we look for help. We want our bodies to return to that silent existence to which we are accustomed.

Some ideas linked to our biological world can only be defined when in pairs. This is particularly true when we try to understand notions such as comfort and discomfort, normalcy and abnormalcy, health and disease, or life and death. To bridge the gap between the opposites we have recourse to religion, philosophy, and science. We need an explanation to help us cope with the reality of our finitude. We sometimes need help.[2]

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[2] Help, in Canada, means the Health Care System. The gatekeeper to the services it provides is the licensed physician or doctor who practices biomedicine. While biomedicine is not the only healing system available, it is the only one that is recognized for insurance coverage purposes. This means that if someone wants to be treated by means of homeopathy, for example, he or she will have to seek a healer that is not graced by official licensing, and pay tor the services. Since biomedicine is the only recognized system, either it should fulfill our needs and expectations or we should adapt to what it can realistically offer. Neither happens, and this monograph tries to understand why not.

Mrs. "A" was sick, and biomedicine cured her. When Mr. “B” becomes sick, it is reasonable to expect that biomedicine will also cure him. This imprecise inductive reasoning is common and unchallenged among lay-people. It presupposes a generic entity “disease” that is fully known and controlled by a powerful biomedicine. According to this reasoning, both Mrs. “A” and Mr. “B” react equally to a disease, whether or not it is the same. Last (1981) wonders how many people care to know about their own medical culture, and how much a practitioner needs to know to practice biomedicine. Biomedicine appears to be a science. As a science, it explains clear causal relationships between pathological agent and disease, between therapeutic interventions and cure, and between research and practical results. As a counterpoint to the certainties of scientific normality lingers uncertainty regarding the subjectivity of the practice (Stein and Apprey, 1985).

This paper is about bioethics and biomedicine, doctors and patients, science and beliefs, objectivism and subjectivism, and expectations and realities. Each of these terms can be understood either as an insider or an outsider. For example, a patient is an outsider to biomedicine science while being an insider in the set of beliefs and expectations that relates to biomedicine. Conversely, the physician is an insider to the scientific world, but is an outsider to the patients’ realities. This non-encounter provides a reference frame for the observation of the doctor-patient relationship. The objective of this chapter is to prepare the basis for an analysis of the issue of the culture of both physicians and patients. To do so, I will survey the development of biomedicine in order to gain insight into the scientific, social, and cultural context in which doctors and patients coexist. Since this coexistence is to a certain extent monitored by bioethics, it will also be introduced.

Section I - HISTORICAL BACKGROUND

Biomedicine is just one healing system or medical tradition (Young, 1995) among many others developed by humankind. It is the current Western medical paradigm or "normal science." Sometimes, biomedicine is also called "big medicine" (Schwartz, 1988). The history of biomedicine is always linked in the background with economics, politics, and society. Not all the links will be explored equally in this simple overview.

Biomedicine's historical roots may be easily traced back to the ancient Greeks (Nutton, 1995). To those not familiar with the historical discussion, it may appear that biomedicine evolved in a historical continuum, gathering information and knowledge, and developing new technologies and tools. One of the modern results of this technological evolution is the substitution of humanitarian care for the enterprise of biomedicine. According to this modern naive fantasy, sympathetic and knowledgeable physicians with quasi-sacerdotal missions were replaced by cold specialists whose only apparent interest is the disease, and not the diseased. Indeed, biomedicine is a technological endeavor with only historical ties with the former Western medical traditions that are identified with the affectionate figure of the caring physician.

The dominant ideas about how our bodies worked and responded to stimuli evolved over time. They were first related, in primitive societies, to external and supernatural causes. An individual was subjected to the will and power of unknown forces. The disease or suffering was interpreted as the result of the baffling and uncontrollable action of forces, such as gods, spirits, witches, and evil eyes. The only way to face this kind of threat was to placate the temper of the supernatural forces through sacrifices or spells (Ackerknecht, 1992; Contenau, 1938; Leca, 1971; Parenti and Fiorenzola, 1968; Precope, 1954). Protective amulets became a form of preventive medicine.

In ancient Greece, the Hippocratic physician was compelled to observe the patient with the utmost accuracy and to examine the objective symptoms. He had virtually no technological help, so trust in one single symptom could lead to erroneous conclusions (Wittern, 1995). With no other diagnostic tool but the five natural senses and philosophical reasoning, the observation of internal phenomena through their external manifestations transformed medicine into a scholarly system, where the process of understanding disease was performed by localizing it inside the body. According to this reasoning, the body could suffer from component unbalances that were the ultimate cause of disease. The healing systems shared philosophical concepts with astronomy, astrology, mathematics, grammar, and logic of the period. It was not a domain in itself. It was one more branch of the Whole. Even if some theoretical contradictions appeared, the fusion of Aristotle and Galen's ideas were the dominant paradigm in Western medicine for centuries in the form of a broadly defined scholarly medical tradition.

Basically, four elements--earth, fire, water and air--and four qualities--dry, cold, hot and moist—were considered ever-present in different amounts and constituted the essence of the universe (McVaugh, 1969). Living beings were composed of four humours--blood, black bile, yellow bile and phlegm. The balancing or, in a modern way of saying it, the fine tuning and equilibrium of the elements and humours resulted in health, in a macrocosmic and microcosmic sense. Disease could be the consequence of non-natural, contra-natural or natural reasons. As such, the patient was viewed globally, since the ultimate measures that caused imbalances and disease were air, food and drink, exercise and rest, sleep and walking, fasting and fullness, and affections of the mind; each of these required an appropriate quantity, quality, function and order (Johannitus, 1974). Almost everything concerned with normal human life and its relations was potentially harmful or beneficial. This intricate web of elements, qualities and humors, would render a particular complexion the symmetry of which, according to Avicenna (1930), if risked, could be life-threatening (Camporesi, 1994).

The scholarly medical system was only one among many at various points in history. At different places and moments of history, many different healing traditions had a claim to being the only healing practice able to alleviate the suffering; each became the dominant trend in one specific healer-patient encounter at one or another moment of history and place of the world. It seems unlikely that people submitted to different sorts of treatments without arguing about the results. The sheer number of types of healing systems in the Western history of medicine alone shows the disposition to choose what could be seen by each person as the best healing method. The other categories of healers, such as wise women, blood letters, barbers, and quacks, were as fashionable and available as their contemporaneous scholarly *physicus* or doctor up to the nineteenth century (Sawyer, 1995). At any rate, there was a common aim among all practices: the regaining of the balance that meant restoration of the organism's well-being.

No matter the aim or the method, the patient had the power to choose not only the healer, but also the healing system; frequently, healers practiced more than one system. Healers were at service of the patients or their communities and acted accordingly (Park, 1985). Government officials, patients, and society in general could control the payment of healers, obey or ignore their recommendations, and choose the healing school, trend or system they were going to employ (McCullough, 1999).

Scholarly medicine amassed a formidable wealth of knowledge derived mostly from philosophical speculation and some careful and accurate observation of patients. This system did not have different tools or treatments from its contemporaries to propose, but was powerful due to its explanatory content. Also, since it relied on the written communication of knowledge, it became, in a society of illiterates, a profession only available to the upper stratum of the society, or for those aspiring to join this stratum, mainly because these practitioners appeared to be knowledgeable, and "to know" meant, since ancient Greece, a gain in status (Bates, 1995; Lloyd, 1996). Its written tradition made scholarly medicine gain, for good or for worse, a certain aristocratic flair and identification with the other recognized sciences and arts, such as mathematics and logic. To gain the respect of the ruling classes was the aim and accomplished goal of scholarly medicine (Rawcliff, 1995).

The main professional objective of the scholarly physician was not "the cure" in the modem sense of the term. The *physicus* tried to make his[3] patient regain the lost equilibrium by correcting the disease, or the unbalance between elements and humours in the patient's constitution (Siraisi, 1990). His diagnostic tools were a comprehensive interrogatory observation of visible signs, the evaluation of pulse, since the physician was only allowed to touch his patient's wrist(McVaugh, 1969), urinoscopy (Canton and Castellano, 1988), and the horoscope (French, 1994). The restorative procedures were composed of dietary measures, bloodletting, complex remedies composed sometimes of more than thirty ingredients, some rare and bizarre, and also advice on personal or social behavior, which would enter into minute details of the patient's life, including sexual frequency (Siraisi, 1990).

The therapeutic foundation of scholarly medicine was based on a "theory of the contraries." If something caused the ailment, the opposite could cure it; similarly, if a symptom appeared, the provocation of its opposite would diminish the symptom's cause (Vannier, 1945). The usual sequence of interventions prescribed by Galen and reiterated by his followers started with an alteration of the diet and usual attitudes of the patient to promote health; later, if the case showed no improvement, they prescribed medications. Bloodletting and surgery could also be used if necessary.

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[3] Male gender is used here because only in rare instances were women allowed to achieve the status of licensed *physicus* in the scholarly medical tradition.

Physicians were members of a liberal profession that required a university education and were expected to be gentlemen. Physicians were seconded by surgeons and apothecaries, their regular assistants in the more down-to-earth activities (Porter, 1992). The physician's task was to diagnose, provide attendance and to advise. When a prescription of remedies was indicated, the preparation of the potion by the apothecary was only one part of the art. In order to transfer to the prescription the macrocosmic qualities that the patient needed, a horoscope was done. It was not a forecast as in the modern sense. This horoscope would give instructions about the best moment to prepare the concoction, bleed the patient out of his excess of a plethora, done by a barber or a surgeon, or even the best moment to consume a restorative meal, since many herbs, plants, and even foods had astral connections (Pazzini and Pirani, 1980). Health was then understood in a cosmic sense; the aim was to reestablish the dynamic equilibrium among all the constituents of the body and soul (Canton and Castellano, 1988). Health was a state only achieved by the individual as a whole.

Whether healing was considered an art, as for the scholarly physician,[4] or a craft or *techné*, as for other healers, lay people had no access to complete healing knowledge. They had to rely on the assumptions, interpretations, and affirmations of the healer, blindly obeying their prescriptions and advice (Conrad, 1995). Contrary to how they are now viewed, people then thought that these non-biomedicine healing systems usually worked. They were ritualistic and traditional,

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[4] The scholarly tradition was the only medical system to receive the epithet "art."

had visible effects, were based on universal beliefs, and tried to mimic what the body naturally would do to balance itself.

The period between late eighteenth century and early nineteenth is when the paradigm shift leading to biomedicine occurred (Bernard, Lemaire and Larcan, 1995). It was then that a purely descriptive domain acquired an experimental dimension. Enlightenment physicians looked for simple and general laws to explain living beings in health and sickness (Risse, 1995). Biomedicine developed as a result of the use of a different methodological approach to the human body, characterized by a shift from reasoning and speculation to experimentation, primarily in Paris hospitals from the French revolution onward (Waddigton, 1973). This paradigm shift was unavoidable due to the progressive possibility of direct observation of the human body, including the use of technological tools such as the microscope (Porter, 1995). The former medical tradition, based on logical reasoning, could not deal with the accumulation of experimental data that contradicted its philosophical assumptions, as with the example of the description of the circulation of the blood by Harvey. However, the rise of biomedicine, overpowering the normative role of scholarly medicine was slow. Other methods lingered in one form or another in the last century[5] (Ackerknecht, 1948; Canguillem, 1988) and remain even now in the form of the alternative medical system.

Today, when we think about medicine, we are referring to biomedicine, with its scientific methodology and statistically proven results. We have a clear idea of

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[5] There are many examples. Just to cite one, published in the first issue of "The New England Journal of Medicine," bloodletting was cited as being used as adjuvant treatment by Angina Pectoris (Warren, 1812).

its objective: the cure of diseases, or at least the alleviation of suffering from the symptoms of disease. Furthermore, the definitions to terms such as disease, cure, alleviation, treatment, and results have been accepted as within the realm of biomedicine, which has acquired a legitimate monopoly to define the concepts (Arnold, 1993). This is the same implicit right that allows other professionals to define their terms, concepts and jargons.

Historically, the patient appeared to have more power than the healer. As already stated, the patient could choose not only the professional, but also the healing practice and system. Only recently did the healing power come into the hands of the biomedical practitioner (Light and Levine, 1988) and did patients surrender their power in exchange for the relief suggested by the magical omnipotence vested by biomedicine (Stein and Apprey, 1985). As a result of many influences, only biomedical physicians were empowered by the state to legally exercise professional health activities (Stevens, 1998).[6] The biomedical professional is thus the legal agent of biomedical acts and functions.

When we refer to physicians and their practice today, we also refer to the profession. During its early history, medicine could be practiced by anyone with enough knowledge of it. A licensing process evolved in time, and the knowledge of

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[6] According to Brody and Fletcher (1993), there are three types of power: (1) owned power -- the power is acknowledged as possessed by someone, (2) shared power – the power is divided with other parties in the relationship. and (3) aimed power – where power is exerted specifically toward a target. The first, owned power is the one obtained by biomedicine in its historical process, as well as the one once possessed by the patient; the second, is the power in a relationship of equals; the last is a trust relation with the empowered, one believes that the handed power will not be misused. Authority is a source of power (Roy, 1980 p.15) and professional authority is a source of professional power. Once obtained, power is automatically exerted, but if abused it is transformed into paternalism, the dictatorship of human relationships.

the art had to be proved. The process of licensing a *physicus*, which varied throughout Europe, allowed for the control of professional standards and granted scholarly medicine, and its heir biomedicine, the status of an official medical system (Starr, 1982). Nevertheless, licensing did not mean universal recognition and acceptance of the healing system. The widespread use of alternative or "soft" medicines in our day is an example of this. At any rate, as an answer to the public pressure for the official licensing and certification of health professionals, degree-granting schools of medicine proliferated in the last one hundred years (Shorti, 1983). Licensing divided the health care world in two: (1) the inside world, the one of the licensed healers, the professional physicians, and (2) the outside world, the one of the patients and their social network.

In the late nineteenth century and the beginning of the twentieth, mainly in North America, biomedicine determined how the healing practice should be established. Physicians took control over the admission process into the profession and of the therapeutic relation with the patient (Moskop, 1980). Biomedicine managed to consolidate the professional monopoly as the sole provider of health care expertise, alienating or restricting dramatically the work of other professionals, succeeding in controlling all facets of its organization and practice, and guaranteeing that all controls of quality and quantity would be internal (Bozzini and Contandriopoulos, 1977; Clarke, 1990). Without any external force to impede it, biomedicine unduly extended the jurisdiction of its expertise, but did not fulfill its explicit ethical and social promises (Freidson, 1988).

From art to science, conceptually, medicine has traveled a long distance. The scientific method and the professionalization process that framed today's biomedical practice defined notions such as cure, normalcy, efficiency, and efficacy. These terms have no similar meaning in history and are crucial to the understanding of how biomedicine sees itself and how it is practiced. It was not only the monopoly of the health care system that biomedicine conquered, it was the exclusive jurisdiction on the definition of disease and, therefore, the behavior people should have in order to be considered sick. Biomedicine gained the exclusive right to design an official sick-role (Freidson, 1988, p205).

Disease follows humanity in its historical journey; if we cannot avoid it, let us try to explain it. Egyptian and Mesopotamian healers, among others, placed disease in a supernatural realm, while Greeks and their direct heir, the scholarly medical tradition, tried to explain disease with a more naturalistic approach. Each medical system explains disease in its contemporary context. For example, in simplistic terms, the medieval Catholic Church considered disease as a divine visitation motivated by the sins of the person--to suffer meant to redeem (Turley, 1935, p.31). Our way of understanding disease is by placing its ultimate origins in the molecular constituents of the body. No matter the explanation used, we still are left with the suffering.

Section II - SCIENCE AND THE DEFINITION OF BIOMEDICAL CONSTRUCTS

Underlying the exercise of biomedicine are the construed concepts of normality, disease, with the description of each morbid state, outcome, and health among many others. These concepts are the foundation of the biomedical knowledge, practice, and science, and will therefore be briefly reviewed here.

According to Ting (cited in Gregory, 1992, p.82) "science is one of the few areas of human life where the majority does not rule." Gregory further adds, "Science is characterized by the progressive expansion of our ability to predict the behavior of the physical world." Not without some irony, Dickson defines science as, "in its broadest sense . . . the activity of those who define themselves as research scientists" (1988, p.19). These assertions can be linked and interpreted in many ways. My reading is that a minority of people exert some sort of discretional power to design the interpretation of the behavior of nature, or in other words, to dictate some kind of scientific truth. According to Hesse (1970), what we really do in science is construct models that will describe phenomena; science is not a process of unveiling universal truths. The problem here is that Gregory and Ting are scientists and Hesse is a philosopher and, as Gauthier states, there is a dichotomy between theory and practice in all levels of the scientific discourse (1995, p.7). At any rate, the goal of science is to generate understanding (Pickett, Kolasa and Jones, 1991). This dichotomy between theory and practice will dictate the perception of science by people at large. Science, which derives from the root "*scire*," or "to know" (Gove, 1976, p.2032), is a process of simplification. Science is not so because it is faulty in this historical moment, but because it is its function.

Science provides us with the elements necessary for understanding and evaluating nature and its phenomena. Evaluation represents the practice, while understanding represents the science. One can understand something for its own value: a rational process depends on other notions only in relation to its complexity, so the more complex the notion to be understood, the more preliminary are the notions required. To evaluate is to do a mechanical comparison that can be done automatically. An evaluation is a comparison of entities, which means that one evaluates something having another notion as a standard. The standard of care, used to define procedures and treatments in biomedicine, belongs to this category.

Science has three aspects: (1) technology, (2) knowledge, and (3) methodology (King, 1982). In biomedicine, these aspects are intertwined in such a way that technology offers the tools to obtain more knowledge and validate it, while at the same time depends on the other two to be further developed. A scientific instrument, as derived from a theory, can be seen as the materialization of that theory (Gauthier, 1995).[7]

The biomedical system is scientific in the sense of being a body of knowledge. Biomedicine obeys the criteria for theory construction: clarity, coherence, completeness and comprehensiveness, simplicity, explanatory power,

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[7] Knowledge may assume many roles: (1) economic, as a commodity, (2) politic, as an element of power, and (3) foreign policy, as an element of influence and imperialistic domination (Dickson, 1988). The main source of knowledge today is science. Applied sciences are the demonstration of their validity. Biomedicine is also an instrument of social and political domination and ideological colonization; health care distribution is a form of political and social control (Arnold, 1993, Trennert, 1998).

output power, and practicability. Once biomedicine is believed to be a scientific endeavor, we have to accept its predictive power. This explanatory content represented by the predictive power is, for public health, insurance companies, and the lay public in general, the most important scientific aspect of biomedicine-science, with concomitant major impacts on the economy.

The major goal of medicine appears to be the "cure" (Yoshida, 1995). To achieve this goal, the notion of a required "efficacy" emerges. The capacity that the physician, a technique, a procedure, a drug regimen, or even a medical system has to be efficacious is its efficiency (Shah, 1994). A "cure" is defined within important constraints. The biomedical cure is interpreted as either the disappearance of the disease and the restitution of physical functions to their anterior state, as if that disease has never struck, or the control of the disease by minimizing its impacts on the organism. To achieve this goal, the physician will use his or her body of knowledge.

For Murphy, biomedicine is based on facts (1997, p.192). The acceptance of what constitutes a biomedical fact is different from what may constitute a fact in other milieu. To qualify knowledge as scientific, it must first be admitted by the scientific community as such. Today's science demands some form of validation before its admission into the domain (Suppe, 1993 p.161). The process of validation is dictated by the methodology. Each science has a methodology; this methodology is a link between concepts and realities and thus it must remain relatively stationary to be used as a framework. The reference framework of modern science is not nature or its order, as it was in the past, but the order of reason. Only what is rational can be scientific and true--even if Gödel (1931) proved that rational constructs hold imprecision within them--therefore in the order of reason there is no certainty. The order of reason departs from a reference framework in order to construct hypotheses and theories (Gracia 1992).

Data in social sciences are subjective in nature. The objectivity of the scientific approach is reflected in a methodology with a tendency to see wholes as unique objects where general laws can be discovered or formulated after the observation of their behavior as wholes. In biomedicine, which is a social science according to Sigerist (1936), what is grouped together as manifestations of the whole are different complexes of events affecting dissimilar individuals, even if they are believed to be related to each other in a similar manner (Hayek, 1979).

As Tyles states, "the problem with the descent to pure physiological mechanisms is that it leaves the qualitative difference between normal and pathological at the level of illusory appearance" (1993, p735). The key concept here is the disparity between qualitative and quantitative differences. A quantitative difference refers to the population, since it is the result obtained by the biomedical science studies, while the qualitative refers to the individual, since it is what the physician sees in his or her office.

Some aspects of biomedicine are rooted in the natural sciences, while other aspects derive from the human sciences. Biomedicine-science obtains most of its foundational concepts from the natural sciences. However, it also derives part of its methodology from the human sciences. Biomedical clinical practice is as generic as statistical data allow, since it is constrained by its basic, indivisible unit of measure of the single patient (Schrödinger, 1994). In other words, natural sciences give the physician precise data that lose precision when translated into the body of a patient.

The explanation of any biological function presupposes a description of normality. The explanation of the function does not explain the presupposed normality, yet normality is somehow linked to the contrast between function and malfunction (Wachbroit, 1994). Biomedical science is based on the notion that there is a certain range of physiological functions which grant the organism as a whole its best performance. This range can be generically called "normal." Alternatively, when a non-optimal performance is found, it is due to an abnormalcy that can be rooted in, or be the cause of, a disease. The basic principle behind applied biomedicine is that once the abnormality or its cause is removed, the organism will tend to return to its optimal performance.

Biomedicine assumes the existence of the absolute normal value as a measurement scale against which everybody can be equally measured. This standard is impersonal and statistically obtained; it is basic to the exercise of the profession. A certain norm or normality is constructed from broad generalizations. Some of these generalizations, specifically those that are related to certain male features, values, bodies and experiences are criticized as constituting the overall human norm (Little, 1996).[8] Similarly, we can argue that the certain prototypical

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[8] The image used in many medical schools and textbooks when referring to the "normal individual" is a young adult male, Caucasian, weighing seventy kilograms, and one meter and seventy centimeters tall. This statistically-obtained normal individual represents the ideal physical patient, which reveals important cultural and ideological biases that are deeply rooted in and embodied by biomedicine. This prejudice is, furthermore, pervasive to all the biomedical field.

patient that is used for most clinical trials does not in fact exist. The norms obtained in clinical trials hardly correspond to what the physician faces in practice. The physician is trained to react to deviations of the norm that is observed in the actual patient. The norm or a normative case should be the evaluation tool that could be used mechanically or automatically. However, as the Harvard Law states, "under the most rigorously controlled conditions of pressure, temperature, volume, humidity, and other variables, the organism will do as it damn well pleases" (Thomasma, 1984, p.34). Since there is no standard basis for a satisfactory scientific evaluation, the physician must resort to scientific understanding through modeling in order to deal with the patient.

According to Canguilhem (1982), what is normal cannot be defined objectively; further, the differences between normal and pathological states cannot be expressed in quantitative terms. Health and normality are interchangeable in the clinical context (Boorse, 1975). Even if Nordenfelt (1993) equates health and a statistical normal pattern to the absence of all diseases, one should however be aware that health and normality do not describe the same state, and that the cure refers to the process of regaining normality (Tyles, 1993, p.741), but does not necessarily refer to health. For a physician, "normal" is a very fluid concept that goes beyond the level of molecular descriptions.[9] Definitions of disease often include states of abnormality (Lloyd, 1994). This use, abuse, and misuse of the terms "normal" and "abnormal" are cushioned for the practice of biomedicine by parametrical values, since normal becomes respectful when it incorporates

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[9]. An example of the precision problem in biomedicine is that which arises from the acceptable ranges in laboratory results. For a graphical view, see Laposata (1992).

statistics (Tyles, 1993, p.736). As a result, an acceptable degree of imprecision or incertitude is normalized in the general "clinical decision-making process." As a result, the physician plays with odds every day and in every case. This incertitude of biomedicine-clinical practice reveals the fundamentally interpretive, and therefore subjective, role that the physician performs.

Disease is not easily understood, not even by physicians, even if seen as a clearly defined pathological entity, with a beginning, evolution, and end. What is described by science and what is seen in the consultation room require explanation. One effort was made by Alexander (n.d., p.44), who formulated disease as a function of (a) hereditary constitution, (b) birth traumas, (c) organic diseases in the infancy, (d) nature and quality of care during infancy, (e) traumatic physical experiences during infancy, (f) traumatic emotional experiences during infancy, and so on, adding all events of all phases of life. In other words, he redundantly stated that disease "D" is a function of the sum of innumerable factors. This expression thus lends an exact and scientific flair to a set of unknown circumstances.

Another attempt to explain the individual patient was made by Meador (1965). He described, defined, and classified the "non disease entity" or simply "nondisease," stating that health or nondisease could not be seen as an unspecific entity. For Meador, the function of the physician was to bestow a diagnosis, either disease A or nondisease A, the latter suggesting that the patient is specifically healthy: he or she does not have disease A. This solves an important problem in general practice: when patients are symptomatic without any diagnosable pathology, they may be classified according to the pathology they do not have. The physician still try to understand why patients do not behave the way science predicts.

Death should be the result of a series of noticeable events, yet some patients die suddenly and without a previous disease. In the cases where death overcomes an apparently normal subject, a physician tries to find a "scientific" explanation of the event. If he or she cannot, a flaw will remain in the explanatory power of biomedicine-sciences. Some of the explanations in these marginal events are quite naive. Pruitt in 1974 justified sudden death as an "expression of functional disease." We must remember here that "functional" in biomedical jargon is the opposite of "organic," which means that a functional disease does not have an anatomo-pathological substrate or cause.

Medicine is a value-loaded science. To make judgments inside this context is to sustain these values. The main judgment practiced in biomedicine is the diagnosis; to carry the metaphor further, the treatment is the sentence to which the patient is condemned. The diagnosis is not what the patient necessarily wants, but since he or she wants a treatment, according to modern Western society, treatment can only be provided after a diagnostic procedure. Nevertheless, many are oblivious to the fact that the knowledge of disease as a philosophical construct is meaningless (Hesslow, 1993). However, with the knowledge of a specific pathologic process that appears to be precise scientific knowledge, there is an expectation that the treatment will be as precise as the name of the disease. Naming is our way of understanding diseases, but it does not follow that the diseases will be treated.[10]

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[10] During my internship we used to joke with the interns at the neurology ward by saying that they used to make precise anatomical diagnosis in each patient only to prescribe barbiturates

Even though the diagnosis is central to the practice of medicine, it still does not change the fact that the diagnosis represents a choice among a series of classes. These classes are grouped when a similarity between two or more elements is found (King, 1982, p.90). However, many of these classes are construed by scientists primarily for their scientific use. Both physicians and patients are mere spectators or incidental users of the classification system. "The motion of the systems and not their anatomy frequently defines a disorder" (Frazier, 1987, p. vii); the diagnosis is the process where the physician tries to define or determine what is the disease affecting the patient. During the diagnostic process, the doctor tries to evaluate the patient, but not to understand him or her.

For Murphy, disease is a definite construct, while the diagnosis of the disease may not be (1981, p.289). The fact is that disease is one of the many scientific conventions that have been devised for practical purposes (Murphy, 1981, p.289). The attempt to discover the disease that afflicts a patient is the diagnostic process. The clinical reasoning in the clinical encounter flows from effect to cause. It is reasoning backwards from what it is observed to what had caused it. The ruling out of criteria and the generation of differential diagnosis represents the deductive part of the diagnosis. It requires experience and information. Clinical casuistry is essential to diagnosis. Biomedicine aspires to be a science through gaining precision, just as in the past it aspired to be an art by acquiring coherence. According to Elstein (1978), the real diagnostic process can be characterized as a hypothetic-deductive activity, a reiterative generation, and validation of hypotheses,

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and complex B vitamins to all of them alike.

with four stages: (a) first impressions, that are very short; (b) early generation of diagnostic hypothesis; (c) oriented collection of new data and its interpretation under the light of the generated; and (d) evaluation of the hypothesis. Both the patient and the physician expect a diagnosis. However, a precise identification of a disease is not always obtained. Moreover, Whitbeck (1981) contends that diagnosis does not have a purpose in itself. The simple determination of the nature of a disease only contributes to the general goals of clinical medicine. The diagnosis is important for the patient in the validation of the sick-role.

How a physician reaches a diagnosis is still under debate. The reasoning underlying the decision-making process needs, for the sake of biomedicine-science, a better explanation, since it appears to be, paradoxically, the weakest and the most crucial part of the biomedical health care process. It is crucial because it is based on the diagnostic label furnished by the physician that the system will act; it is weakest because it is a subjective decision triggering objective measures. "Probabilistic reasoning relies on the statistical relations between clinical variables and is frequently used in formal calculations of disease likelihoods. Probabilistic reasoning is especially useful in evoking diagnostic hypotheses and in assessing the significance of clinical findings and test results. Causal reasoning builds a physiologic model and assesses a patient's findings for coherence and completeness against the model; it functions especially effectively in verification of diagnostic hypotheses. Deterministic reasoning consists of sets of compiled rules generated from routine, well-defined practices" (Kassirer, 1989, 893). The physician constructs a diagnostic hypothesis that he or she will try to prove or disprove through diagnostic procedures.

Since theoretical concepts such as health and disease are so frequently used in biomedicine, one may conclude that they are important for the biomedical decision-making process as well. According to Hesslow (1993), that is not true. These theoretical notions are irrelevant when decisions such as treatment are to be made. These notions may be useful in generic terms, but only as a reference to a class of elements. The decision-making process of a physician is based upon different concepts than those of the patient. To make a diagnosis is to engage in a hermeneutic process, where interpretation skills are integral in associating science with the patient's story (Bowman, 1992). The physician's subjectivity plays a major role in this comparative and evaluative process. According to Ridderekhoff (1993), the diagnostic process follows Baconian "induction by enumeration" reasoning: departing from conjectures, one proceeds to gather empirical evidences to support or dismiss the initial conjectures. This process is implied by the irreproducibility and speculative nature of the strategy when used or applied in biomedicine. At the same time, this reasoning allows greater flexibility in answering patients' needs.

The objectives of the diagnostic are to classify, measure, understand and evaluate. To reach a diagnosis, a physician must acquire facts selectively and in a certain sequence. In addition, this must be done in a certain time frame (Murphy, 1997). No matter what the process of medical reasoning is, it is always value-laden

(Pellegrino and Thomasma, 1981). Medical reasoning is therefore influenced by external factors since values are acquired.

At the end of the clinical encounter and, hopefully, after a diagnosis is made, treatment follows. The treatment is a process during which physicians match patients to available treatments. Stern and Trajtenberg (1998) recognized two patterns of treatment between (1) physicians with a small portfolio of choices, and (2) those with many choices. Doctors with a larger portfolio were more sensible about their patients' needs. At any rate, the efficiency of the matching process depends on the skill and knowledge of each particular physician. When choosing a drug, physicians tend to consider the curative effect as the only criterion of choice (Lilja, 1987). It must be noted that this curing effect is defined inside biomedicine, with only indirect links to the patient, the ultimate user, or beneficiary, of the treatment.

One of the behaviors linked to the physician is the therapeutic behavior. This includes giving advice, explaining, discussing, and listening. However, one must be aware that physicians are trained in sciences, but not in listening (Furst, 1998, p.235). Parsons (1964) states that the physician centers his or her role on the "responsibility for the welfare of the patient in the sense of facilitating his recovery from illness to the best of the physician's ability" (p.447). This almost idyllic description leads us to the term "illness."

The hard-core science, added to the uncertainties of the practice, has to be contrasted with the metaphoric language of the patient. The speech of the patient is metaphorical, as is any speech. This metaphor is thought to be analyzed objectively by biomedicine through propaedeutics. The results of the clinical examination added to the quantitative and qualitative tests become more important than any other complaint or observation made by the patient. For example, some intensive care unit patients die despite having exhibited normal laboratory exams. The objective result obtained may or may not coincide with the subjective complaints of the patient; nevertheless, it is the objective result that will define the presence or absence of disease, and it is this disease that will be treated. The physician treats the disease that he or she finds and not the one the patient actually has. In other words, the treatment is directed at the disease that is found by the physician; it is not directed at the illness the patient has. Still, it is important to note that the physician alone chooses what is or is not important in the patient's discourse. This simultaneously objective and subjective choice affects the decision making process. Language acts as the sole mediator between nature and science.

In a prototypical consultation, information flows first from the patient to the physician. The latter processes this information and channels it back to the patient in the form of a proposed treatment. The information received by the physician consists of a set of objective data relating to the disease/illness/sickness mixed with a set of signifiers conveying all the emotional load and expectations that the patient might have. The physician, generally, unilaterally chooses which information upon which to base his or her decision making process. Usually the information that is regarded as relevant to the clinical situation is accepted and the remainder is simply discarded, no matter the importance it may have to the patient. What is subsequently processed in biomedicine is thus not the self of the patient, but an image of the patient's body.[11] The consequent information that will be sent back to the patient--the treatment--already stripped of the original signifiers, regarded as variables, is further depersonalized by the statistical assumptions of the biomedical methodology that presuppose a tight control on all variables. Therefore, the diagnosis and treatment are aimed at a selfless patient.

For Nordenfelt, "to say that one has a disease is to say something different and more specific than to say that one is ill" (1993, p.282). The main distinction between disease and illness in biomedicine is that disease is a malfunctioning of the biological apparatus whereas illness is a reaction at the human level to this disease (Kleinman, Eisenberg and Good, 1978). Disease is shaped biomedically whereas illness is shaped culturally. The different levels of specificity cited by Nordenfelt, that is by one disease--a specific patho-physiological entity--may therefore give rise to different illnesses. Disease refers to abnormalities in the structure and/or function of organs and organ systems. The pathology indicates whether or not they are culturally recognized, which is the arena of the biomedical model. Illness, conversely, refers to a person's perception and experiences of certain socially disvalued states that include, but are not limited to, disease. Sickness is a blanket term used to label events involving disease and/or illness (Young, 1982).

The cultural meanings of disease and illness are also different (Kleinman, 1988). A disease may or may not correspond to an illness and vice-versa. A

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[11] Biomedicine struggles with the incorporation of a self into a patient's body. Mind-body dualism is fundamental in the Cartesian thought from which biomedicine derived its methodology. To allow the simultaneous expression of mind and body is to add uncontrollable variables into the clinical equation. Part of this problem is discussed in Kleinman (1986).

disease may exist without a corresponding illness; and illness may exist without a disease. Patients identify themselves as ill only if the disease is serious enough to somehow incapacitate them by (1) becoming undesirable, (2) entitling to special treatment, or (3) becoming a valid excuse for a criticizable behavior (Boorse, 1975).

Diseases and illnesses are employed as metaphors and used within metaphoric language. Metaphors, which include metaphorical language, are explanatory tools (Hesse, 1970). We must be aware that disease and illness are not entities *per se*, they are "explanatory models[12] mirroring multilevel relations between a separate complex, fluid, total phenomenon: sickness" (Kleinman, Eisenberg and Good, 1978 p.252). They answer objective and subjective questions about why, how and when the episode occurred. The explanatory model is, in other words, how each of the people who intervene in the illness process, live and understand the sickness. While the physician's explanatory model is based on the disease, the patient's is centered in the illness (Ballester and Perdiguero, 1992). For the patient, there is no such thing as a specific disease, there is only his or her personal illness. The diagnosis is only important in its role as a tool for eliminating illness. Both models are culturally conditioned and offer the necessary tools for evaluating communication strategies and social roles.

The state of illness is seen as a complex context that includes, aside from the intrinsically patho-physiological phenomena, one's personal emotional complexion, social network, and philosophical issues. However, feeling abnormal

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[12] "Explanatory models are the notions that patients, families and practitioners have about a specific illness episode" (Kleinman, 1988, p.121).

does not make someone a sick person automatically. This abnormality must reach a threshold beyond which the person will seek relief. At this moment, the person is transformed into a patient in the consultation or clinical encounter.

Biomedicine is a deterministic science.[13] This means that some cause determines some effect in a direct relationship. There is no option or freedom in the patho-physiological process: once a cause is in place, a morbid phenomenon will succeed. Physicians are trained to think this way. Biomedical scientists design their experiments this way. There is no other option in the current biomedical norm. Biomedical science moves from observation and discovery to new observations and discoveries through evidence and statistical manipulation of data (Jonsen, 1993, s-2). Without complete knowledge of the entire domain, the practice of biomedicine must fill in the blanks. As Gelfand indicates, “the state of scientific knowledge about disease is far from perfect and will probably remain so for centuries, and while this is the case no stone can be left unturned where the patients' health is concerned, even if the nonscientific method is a thorn in the flesh of the scientific doctor” (1968, p. 46). In other words, in a so-called demanding and innovative scientific endeavor that is dominated by the rigors of the scientific method, physicians are frequently unscientific.

Causality is one of the cornerstones of modern medicine (Rizzi and Pedersen 1992). The traditional causal evolution of events is: (1) manifestation of disease through signs and symptoms, caused by (2) the disease itself, caused by

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[13] Determinism means that sufficient information at t_0 allows prediction of a specific result at a latter time t_n. Causality means that a specific preceding event (or “cause”) for every effect (Cushing, 1989, p.10).

(3) a pathogenic mechanism, caused by (4) an etiology. Rizzi and Pedersen add therapeutics to this model, which almost reverses the events: the more it approaches etiology, the more it is thought to be causal, and the greater the knowledge about the disease. However, as Rizzi and Pedersen indicate, multi factorial diseases are commonly recognized today. Nevertheless, investigators still explore a limited number of etiologic factors since seeking a general cause-and-effect relation would generate innumerable variables. Which factors would be chosen remains a personal and thus value-laden choice.

Biomedicine is a system; we have now defined some of the terms that are used in the exercise of the profession. The university setting provides the descriptions of a specific pathology, its signs and symptoms, its relevance in the long-term health of the patient or population, its treatment, and the expected outcome from the therapeutic procedures. Notions such as efficacy, efficiency, cure and health are part of a cultural vocabulary that pertains to biomedical professionals. The evaluation, or judgment, of what constitutes normalcy or abnormalcy in the physiological behavior of a patient is the legitimate exercise of the biomedical profession. In sum, then, the biomedical system defines the standard of care that is going to be used by biomedical professionals. The standard of care is a biomedical cultural tool that is used to evaluate the cultures of the population in general; in order to know how to use this biomedical cultural tool, one must acquire the biomedical culture and be licensed to practice biomedicine.

Section III - THE BIOMEDICAL CULTURE

Professions are occupations, processes, and ideologies (Clarke, 1990). Biomedicine is more. It is a culture and a society. Still, according to Clarke, medicine in Canada determines its own standards for education and training. Its practice involves legal licensing; this licensing process is managed by the members of the medical profession. Furthermore, the members of the medical profession voiced themselves strongly in the shaping of the legislation affecting the profession, so practitioners are now relatively free from lay control and evaluation. Clarke adds, "Physicians are self-regulating. This means that through their organization they decide what constitutes good medical practice, determine the requirements for training a physician, set standards of practice, and discipline colleagues who depart from these standards" (p.213). On the same issue, Murphy states that the biomedical profession claims to be the most reliable authority on the nature of the reality it deals with. The biomedical profession has "the approved monopoly of the right to define health and illness and to treat illness" (1997, p.5). The power biomedicine has is political; it can control the state to maintain its preeminence. A word of caution should be added here: biomedicine is not the only self-regulating profession in Canada. Some parts of this monograph can be applied to other professions as well. However, a critical evaluation of the biomedical profession, and not of other professions, is the objective of this paper.

Professional standards generate specific behaviors. The physician is expected to behave in a specific cultural and social manner, which is learned from peers during the long hours of studying and duty in university hospitals. Platt alerted, "young men trained in the techniques of science may become more interested in the disease than in the patient. This is a particular danger in whole-time professorial units, partly because of their preoccupation with mechanistic science and partly because they are out of touch with medicine as it exists in the community" (1963, p.17). This warning was written before modern bioethics and consumer movements took place, and when double-blind-randomized-trials were a novelty. By then, physicians still were considered trustful. Brody and Fletcher state, "A university hospital is not an egalitarian structure. The people at the upper end of the hierarchy have more control than those at the lower end" (1993, p.30). This control shapes the biomedical culture. Physicians suffer a process of indoctrination that takes them out of the commoners' world into the hospitals. Students are selected by their future peers in a selection process ruled by the profession. They acquire the biomedical culture in faculties ruled by the profession, from a curriculum built with little or no help from outsiders. Students interact with patients only when the patients are required as tools for the students' acquisition of experience and as practical examples of the effects of treatments. Students build an *esprit de corps* in their long hours of work that sets them apart from the rest of the society (Good, 1995).

Good demonstrates that biomedicine has a culture of its own, with its particular language, accepted rituals, and respected hierarchy. Furthermore, biomedicine bestows titles, insists on confidentiality and secrecy of its relationships, has its own dress code, and, what is more important for this paper, "formulates the human body and disease in a culturally distinctive fashion" (p.65). Since biomedicine is a Western cultural system, its organization reflects the hierarchical system of society (Kahn, 1995).

What constitutes a valid scientific argumentation inside biomedical science is also culturally bound. Biomedical science is a distinct society even among the other sciences. Medical articles cannot be read with the same lenses used to read other scientific papers. The logical design of biomedical papers is of an informal and inductive design, in contrast with the formal and deductive design of the other sciences (Velanovitch, 1993). Commenting on mass media, Parenti (1989) stated that somebody's competence was in part measured by the ability to report something from an ideologically acceptable perspective. Furthermore, one's autonomy is directly proportional to the degree of compliance with the official perspective. This behavior is also warranted by an on-the-job ideological indoctrination. Consequently, Parenti argues that journalists ideologically reflect the consolidated ideology in their reporting. While Parenti does not refer to scientific publications or biomedicine, one cannot stop wondering if this ideologic pressure does not exist, which makes some subjects more publishable than others and at least determines the acceptable format.

Biomedicine is indeed self-conducted. There is no medical practice without a doctrine: it generates hypotheses and provokes research (Boinet, 1911). If some defend the idea that there is not an official doctrine, at least it is indisputable that there exists a body of professors and researchers that receive a mandate from the state to teach and to look for better ways to fight disease and maintain public health

(Collin, 1935). Furthermore, research is “dominated by large-scale laboratory projects, often financed by governmental agencies, private foundations and industry” (Lindhal, 1992, p.97), which makes it clear that other interests, beyond those of the professional and the client, are present.

Scientists maintain a highly efficient informal network of communication (Crawford, 1971). It would be naive to pretend that this web does not ideologically influence the whole field. Although no one states that a formal leadership exists in biomedical science, the existence of opinion leaders is undeniable as in any other field (Crane, 1972), especially when we remember that most publications in a certain field are rarely cited while only a few are frequently used as reference. Scientists are attracted to an area where influential peers set the agenda, train students, and maintain informal contacts, which thus solidifies their influence. This is the so-called "invisible college"; scientists outside this circle have great difficulty publishing and gaining influence and importance in the field. These opinion leaders mediate the transfer of information to the public (Crane, 1972). Somehow, this invisible college is responsible for the positivistic expectations that are generated by the public.

The biomedical field is thus framed by the theoreticians and professionals of biomedicine. They point to what may or may not pertain to the domain of biomedical science. The definitions pertaining to and delimiting the field of biomedicine are obtained or elaborated based on the theoretical principles on which biomedicine is founded: scientific method and statistical inference and deduction. The use or purpose of this knowledge is also determined from the inside of biomedicine to the outside users or, more technically speaking, the patient. One must note here that the patient is a passive actor in this whole process.[14] He or she is used to obtain data, and is again used to apply techniques, procedures, or regimens. The framing, the definition, and the use of biomedicine are independent of the lay public. The definition of the standard of care, and the decision to allocate biomedicine as the official healing system was also made independent of outsiders (Freidson, 1988; Furst, 1998; Murphy, 1997). One must note that the patient is only a remotely interested observer until the moment when he or she needs the services of the system (Last, 1981).

All the knowledge used in clinical practice emanates from biomedical science; the physician struggles to adapt an idealistic standard of care obtained in an ideal patient designed to reach an ideal outcome in his or her down-to-earth everyday practice. According to Froom and Froom, "the prevalence, course and prognosis of diseases in patients referred to tertiary medical centers frequently differ from those treated in primary care settings. Extrapolation of findings from one population to another may therefore be unwarranted" (1992, p.255). In the United States and Canada, referral centers are seen as the sole source of biomedical knowledge; however, the generalization of this knowledge to primary care settings creates serious discrepancies. According to Brody (1992), this provides a source of false certainty and is a false science: the physician in primary care is expected to apply the knowledge generated in referral centers, where certain tools or

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[14] Patient is a technical term denoting the diseased. Its etymology should be noted, however, since its root suggests passivity when facing adversity (see Gove, p.1655).

methods are worshipped. The knowledge that originates in tertiary centers is called the standard of care.

Patients look for answers that biomedicine does not provide (Worsley, 1982), since biomedical knowledge production and culture are for internal consumption. The external public would be ideally constituted, as in Stimson's description, by the ideal patient: "an obedient, passive, and unquestioning recipient of medical instructions" (1974, p.97). Any divergence from this model would be categorized, according to Stimson, as "irrational in the light of medical rationality." This "deviant" patient is seen as such, from the physicians' perspective; also this perspective sees the "cured", the "normal", the "difficult", the "beautiful case"[15], and so on. Physicians write papers and describe these patients, yet these patients exist in medical literature only as carriers of a certain morbid state. The patients' voices still remain outside the medical papers.

Biomedicine, like other techniques, attempts to dominate the environment and organize it according to human values (Canguilhem, 1982). These values are culturally and socially rooted. As demonstrated above, the roots of biomedicine are in the Christian Western European society and culture, which later evolved in Christian North America, where it received its current face. The globalization of biomedical culture, beliefs, values, and methods was not envisaged by its proponents that were worried in solving the immediate health problem of their Christian Western patients. Biomedicine was not created, built, designed, or

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[15] A "beautiful case in biomedical jargon is a typical case, similar to the ones present in textbooks, usually of a rare or difficult to treat disease. In general it is a "bad case" from the patient's perspective.

intended to be a multi-cultural system. When dealing within its cultural context, biomedicine faces fewer value shocks, and the metaphorical world about the body, self, and rationality remaining the same for both, physicians and patients. To be multi-cultural, the original design of biomedicine is placed under another stress. With the globalization of trade, communication and transportation there is no longer, if there ever existed, an isolated nation or people with its own public health concerns, independent of an external world (Raymond, 1998, p.97). The world, for all its different cultures and societies, is only one; the tool used to define and face disease, to interpret illness for the system, and to define, describe, obtain and maintain and frame normality is the Western, Christian biomedicine.

Another major problem in biomedicine is that there is a divorce between facts and values (Tyles, 1993 p.731). Wear indicates, “Medicine is not only a science and a *techné,* but a fundamentally value-laden human enterprise. In effect, the assertion that any particular intervention is ‘medically indicated’ must incorporate an evaluation assumption about the worthiness of the goal of the procedure. In any given case the choice of any particular intervention is a value choice and this fact about any medical act is always present, no matter how ‘obviously appropriate” the proposed intervention or how absolute the consensus among the parties involved” (1981, p.27).

Thomasma and Pellegrino (1981) point to three values as crucial to medicine: (1) the value of the individual patient, (2) the value of health, and (3) the value of altruism that mediates the class of potential patients. Since these are moral values, I would add at least two other values: (1) the self-regulation value, and (2) the acquisition of knowledge value. Biomedicine acquired an official monopoly to define health and disease and to treat them (Arnold, 1993, Trennert, 1998). This monopoly somehow influenced the transformation of a knowledge domain into a culture that was elitist, hierarchical, and ideological.

The fact is that clinical practice is the interpretation of physical signs and symptoms as described through the lenses of the patient and read through the physicians' eyes. This interpretation is, however, not objective; its subjectivity is influenced by beliefs, knowledge, culture, information, society, and specific factors related to the moment when the consultation occurs. Of course, the outcome directly depends on the interpretation since an outcome is the result of the treatment indicated by a diagnosis obtained from an interpretation. Biomedical culture interprets patients' cultures and offers them the cultural product of the treatment. This treatment is offered with hopes of cure. The physician will try to cure the disease; the patient wants the illness to be eliminated. The result is a major change in the patient's life; the physician is either seen as the benevolent, benign, or heroic mediator, or the intruder, a malevolent, or malignant cause of the change. This opposition of health related issues requires further exploration.

Section IV - OPPOSITIONS

Biomedicine deals with oppositions: life and death, health and disease, normal and abnormal, acute and chronic, and ultimately good and evil. This manicheistic set is further divided according to two views, that of the patient and that of the physician.

It is undeniable that biomedicine is the result of a paradigm shift, and according to Kuhn (1978), one paradigm--in our case biomedicine--is incommensurable with the former normal science--scholarly medicine. If the healing system we use today has evolved and transformed into something very different from those which existed in the past, the patient has not. However, Kuhn did not refer to the observers outside the paradigm or normal science; they did not suffer, and will never suffer one specific paradigm shift. For the uninitiated, the principles, internal coherence, or contradictions of a specific normal science do not matter. To suffer the shift, the internal contradictions of the normal science must be perceived or experienced as such, and one can only perceive them by being initiated. By being aware of neither the need nor the occurrence of a paradigm shift, and remaining in a defunct normal science, the user remains in one paradigm, while the professional is in another. The paradigms are incommensurable, which makes the communication between user and professional problematic.

The distinction between outsider and insider is important not only to define the boundaries of the science as a rational engagement, but also to define, in the case of biomedicine, its boundaries as a social gathering. The result of the dyad outsider/insider is that patients and doctors remain in different epistemological realities. However, regardless of any contradiction, people expect some form of results from any kind of human endeavor. People expect something from biomedicine.

The practice of biomedicine starts with the contrast of two actors: the patient, client or user on one side, and the physician, doctor or healer on the other. These two characters meet and exchange values in a clinical encounter or consultation.[16] According to Brill (1976), a consultation can be seen as a process of exchange of information and advice, which often involves a professional or expert. Implied by this exchange is the idea that to receive, one must also offer information, upon which the expert advice will be based. While expertise may be epistemic and based on what the expert knows, that is, the noninvasive practice of biomedicine, it may also be performative and based on what the expert does, which is the invasive practice of biomedicine (Weinstein, 1993). These two domains may be conceptually and logically distinct and, of course, the advice that is given at the consultation may differ when it is given by different categories of experts.

Three sets of oppositions have so far been canvassed: (1) scholarly medicine/biomedicine, or the paradigm of former normal science contrasted with the paradigm of the current normal science; (2) the insider/outsider, or the physician and the patient; and (3) the epistemic/performative experts, which refer to the non-invasive and the invasive practices of clinical biomedicine. Two other major oppositions must be introduced now. The first is acute versus chronic care, the other is biomedical science versus biomedical clinical practice.

In almost every case, an acute disease is a limited event in the life of the patient. Most ailments or accidents leading to the need of acute care are easily recognizable. if not diagnosed, by the patient or his/her social network. These

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[16] It would be a mistake to think of these two characters as completely isolated from their social network. The patient has family, friends, and culture. The doctor has the health system, a professional team and culture.

include, but are not limited to the sudden onset of trauma, fever, and pain. Both the physician and patient identify the same signifiers in the communication between them, and both expect the same thing from the health professional's intervention, that is the relief of symptoms and elimination of threats. Little or no conflict arises in the relationship between the physician and the patient in these circumstances. It should be noted that the technological development of procedures in acute care is such that the margin of success in acute care interventions is ever increasing.

Chronic care offers a different scenario. Usually the onset of chronic diseases is gradual and involves, in the early stages, little or no disability. By offering a vast array of unspecific symptoms, the process of diagnosis is difficult and frequently involves many auxiliary tests and inter-consultations with specialists (Steward and Sullivan, 1982). A chronic condition affects many aspects of the patient's life, including the patient's social, economic, psychological, and physical well-being (Curtin and Lubkin, 1990). The objectives of the intervention of the health care professional are no longer clear for the patient, since there is rarely a satisfactory treatment or even diagnosis. The much desired elimination or relief of symptoms or elimination of threats is illusory in most cases of chronic diseases. Facing the disease, the patient can respond to it with (1) action, an attitude of self-helping or seeking for help; (2) inaction, "wait and see," usually caused by the vagueness of the symptoms; (3) remaining in flux, a vacillation between the two already cited; and finally (4) counteraction, the denial of the symptoms, often referred as anti-illness behavior. The symptom experience is recognized as not compatible with one's perception of health and thus demands an action. The chronic illness may or may not be perceived as such, which allows for other responses (Lubkin, 1990).

The pattern of biomedical intervention has different meanings for the patient in acute or chronic care. In acute care, the patient is sick for a limited period of time. The outcome is either recovery or death. In this scenario, the physician's action is, in general, a benign and ephemeral event in the patient's life. In chronic care, on the other hand, the disease gains momentum with time and eventually affects all of the patient's activities. The patient perceives a progressive decay of his or her health status, and in some cases becomes disabled. The disease becomes the patient's permanent companion; the role of the health care professional becomes blurred by simultaneously relieving and not relieving the patient's suffering. In chronic care, the professional is permanently present in the patient's life, dictating and controlling every minute aspect of his or her lifestyle. The patient has to choose the lesser of two evils: to obey the physician and live with the specter of death with the disease under control, or to not obey the physician and live with the specter of death with the disease uncontrolled.

Another opposition appears in the semantics of biomedicine. The word "medicine" is a large portmanteau. Its meaning ranges from a drug obtained over-the-counter for the relief of an unspecific symptom, to the state supported health care system, and, of course, passing by everything, directly or indirectly, related to health and disease. Since the same word is used to name so many different things, the meanings overlap.[17] We may reasonably expect that no one will confuse a drug with the health care system; however, for lay people, boundaries between biomedicine-science and biomedicine-clinical practice are not clear and may, in fact, mean the same thing. That is why we must differentiate between the science of biomedicine from the clinical practice of biomedicine; furthermore, both must be differentiated from the health care system, which is also generically called biomedicine, since one must remain aware that "it is notoriously difficult to differentiate satisfactorily between basic and applied science" (Crane, 1972, p. 96).

Wiesing and Welie (1998) state that scientific knowledge and medical practice are qualitatively distinct. Science presents factual knowledge about the general laws of a specific phenomenon while practice deals with specific and particular situations where the phenomena occur. In Fleck's (1979, p.10) words, "there is however, a very important difference between experiment and experience. Whereas an experiment can be interpreted in terms of a simple question and answer, experience must be understood as a complex state of intellectual training based upon the interaction involving the knower, that which he already knows, and that which he has yet to learn." Experiment and experience coexist in biomedicine. Experiment, which refers to biomedicine-science, combines with experience, or the

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[17] Not only is the simple definition of biomedicine problematic. The aims of this field are also difficult to understand: "But what are the professed goals of medicine? This question is doubly difficult. Not only does medicine suffers from a poverty of ends, but it also is not a monolithic discipline. Medicine embraces everything from public health sewage treatment to neurosurgery, from physical therapy to cancer treatment, from medical technicians to family practice. What is more, if the general notion of health is the goal of medicine, then few agree on its definition" (Thomasma, 1990, p.245).

biomedicine-clinical practice, and the combination yields the possibility for predictions, provided certain conditions are respected (Tyles, 1993, p.731).

Biomedicine-clinical practice is not only applied biomedical science. It is also the humane activity of providing comfort, help, and relief (Pellegrino and Thomasma, 1981). This applied science becomes a profession in a governmental structure called the health care system. The three share not only the epithet "biomedicine," but also a conceptual framework and an epistemology. The contrast between these two biomedicines is better explained by Freidson (1988, p.168): (1) the major aim of the clinician is action, not knowledge, as the scientist; (2) the practitioner has to believe in what he or she is doing; but doubts and questions are important tools for the scientist; (3) while clinicians are pragmatists and want "results," theory is one of the concerns of scientists; (4) with time, practitioners tend to trust their accumulated first hand experience, scientists prefer experimental evidence; and (5) practitioners tend to emphasize the ideas of uncertainty and indeterminacy, whereas scientists look for regularity and lawful behavior. In other words, biomedicine-science is a heuristic tool. It targets the ontology with a statistical method. Biomedicine-applied science or clinical practice is aimed at a specific patient with a specific complaint. It uses an inductive-deductive method, and its results are measured according to an absolute scale of failure versus success.

Humanity has a history; moreover, each cultural group, nation, profession, and family can be seen as having a particular history. These histories will influence each person and will, together with other aspects, constitute the individual self.

Power also influences people, which makes them accept, sometimes unquestioningly, values that do not belong to the initial set of that person. When someone is afflicted by disease and in need of care, the submission to power in exchange for relief may be considered a blessing. Indeed, in some healing systems, successful healing demanded submission to supernatural powers (Keyserlingk, 1998). Healing may mean the victory on the greatest of all oppositional struggles in health care: life versus death. Good versus evil are represented by many metaphors and they are all present in the daily work of a health care provider. Bioethics appeared on the scene in the hopes that it would offer the much-needed guidelines to the health care system on dealing with different values.

Section V - INTRODUCING BIOETHICS

Since there are intrinsic relationships between medicine and values (Pellegrino and Thomasma, 1981), the oppositions described up to this point, in addition to those left unexamined, inevitably generate and aggravate other conflicts of values between the professional and the client. The pertinent philosophical forum to deal with conflicts is ethics and, in the case of health care, bioethics.

Historically, medical ethics dealt mainly with the relationship of the health care professional and his or her peers. Medical ethics included: the duty of confidentiality, which was aimed at maintaining some procedures known only to the members of that group; fee agreements, in order to discourage unfair competition; and permissible and forbidden procedures and practices, which defined a common practice that differentiated a particular healer group from others. Initially, ethics was not about the patient and his or her rights, as it is today; then, it was about the healer and his or her practice (Wear, Geyer-Kordesch and French, 1993).

It was between the 1960's and 1970's with the rise of individual rights and feminist movements that biomedicine's dominant role in the decision-making process started to be questioned. Its paternalistic decision-making model and the sovereignty of the professional in the doctor-patient relationship were the two major concerns. However, it is a mistake to single out one factor as the main reason for the development of bioethics. The social distancing between doctor and patient, the modern hospital, and biomedical research and technology had equally important roles in the historical process. Similarly, the way biomedicine-science technologized and professionalized healing practice from the mid-twentieth century on tended to eclipse biomedical humanism (Barnard, 1998). Public expectations were closely tied to the authoritarian role held by physicians. The power shift began with the replacement of the paternalistic model by the patient-autonomy model. A set of ethical and legal precepts evolved, mainly in North America, to protect the presumably powerless patient from a presumably powerful physician. By the 1970s, courts tended to view the doctor-patient relationship as a partnership, with the final word belonging to the patient. The rise of health care costs played a very important role in the patient rights movement. High health care costs generated the view that health care was a matter of a right. With the "right" came the notion of "best interest," and the interpretation of its meaning passed into the hands of the patient. It became understood that physicians may not be the best ethical judges of their patients' best interests and of the appropriateness of therapeutic interventions that would best serve their patients' expectations (Veach, 1995). Ultimately, this doubt gave rise to the autonomy debate. Physicians are now expected to respond to this new cultural vision. With their patients exercising their "rights," physicians became aware of possible liability and malpractice; consequently, they developed a "defensive medicine" (Marsh and Yarborough, 1990).

Just as biomedicine is a transformation of previous models of Western medicine, bioethics also evolved from older professional ethics. If the former appeared on the scene to answer the specific needs of the population and of the scientific community, the latter came as an answer to the unbalanced results obtained by biomedicine. At this time, bioethics no longer deals exclusively with professional relationships, as reflected by the old deontological codes and oaths. Instead, social responsibility and professional liability are the main concerns. However, as a legitimate child of the older deontological ethics, the central figure of bioethics[18] continues to be the physician. Indeed, if "para" means beside, parallel and even parasitic (Gove, p.1634), bioethics seems to be a paramedical activity; as such, it inherits, as do all other paramedical activities, its methodology and respectability from biomedicine. Significantly, paramedical professions work under the direction of physicians; their role in the health care system is legitimated by the relationship they maintain with the physician (Freidson, 1988, p.67).

Coinciding with the beginning of the bioethics movement in the 1960s, some clinicians in a movement called the "critical clinical school" began to find the

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[18]. I must stress here that from this point on when I refer to bioethics, I am targeting the applied or clinical bioethics.

description of the effect of drugs inadequate when based only on experimental data, and began to perform clinical trials. The double-blind randomized trial became the ideal, and biostatistics gained a strong impulse as a methodological tool in biomedicine-science. The amount of research and the expenses in health care have multiplied in a few decades without any proportional effect on morbidity and mortality in the developed world (Wulf, Pedersen and Rosenberg, 1986).

Today, a popular version of bioethics is understood as founded in four principles: autonomy, justice, beneficence, and nonmaleficence (Beauchamp and Childress, 1983). In Canadian society, these principles seem to be undisputed. Indeed, the autonomy and justice principles are grounded in the Canadian *Charter of Rights* and in Quebec's *Charter of Human Rights and Freedoms*, while autonomy, beneficence, and nonmaleficence are enshrined in Quebec's *Civil Code*, and in the *Medical Code of Ethics* and the *Nurses' Code of Ethics*. With all this apparatus, bioethics--a "minor form of moral philosophy practiced within medicine" (Jonsen, 1993, s1)--became a philosophy with practical tools of exercise. Bioethics attempts to be an instrument of social regulation (Bourgeault, 1992).

For Beauchamp and McCullough (1984), only two models of moral responsibility exist: (1) the beneficence model, and (2) the autonomy model. Both are competing models in bioethics. In the context of clinical practice, beneficence and nonmaleficence describe the same principle, since the application of one principle without the other would result in a contradiction (Gillon, 1986) and contradictions in the practical world are translated into inaction. Marsh and

Yarborough (1990) clearly differentiate between beneficence as a decision-making model and beneficence as a moral foundation that may guide physicians.

Autonomy is a person's right to self-determination. Concerns about physicians' autonomy and power are directly linked to the exercise of paternalism and the impact that this paternalism may have in health care, both in terms of policy making and in terms of individual care. To balance the power in the relationship, or at least neutralize the dangers of biomedical paternalism, the doctrine of informed consent appeared (Daniels, 1984).[19]

Until the 1970's, autonomy for a professional group meant the freedom from outside direction or the freedom to perform one's work the way one wishes (Freidson, 1988, p.368). These actions and functions that characterize professional biomedical work are going to be performed upon the patient, who is expected to be an inert or passive subject. The degree of power held by a professional group can be traced to: (1) the specialized knowledge needed to the practice, (2) the social distance between professional and client, and (3) the professional group greater homogeneity than society in general (Clarke, 1990, p.204). Gelfand (1968) states that the medical degree warrants the holder a certain sense of power over the lives of sick people. The relationship between the physician and his or her patients

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[19] According to Poland (1997), the first ever recorded use of the term "informed consent" in law was in the Salgo case [*Salgo* v. *Leland Stanford Jr. University Board of Trustees*. 154 Cal. App. 2d 560, 317 P.2d 170 (1957)]. "The court noted that a physician violates his duty to the patient if he withholds any facts necessary to form the basis of an intelligent consent by the patient to the proposed treatment. The court also noted that when discussing risk, the physician has discretion "consistent with the full disclosure of facts necessary to an informed consent." (P.193) Poland also cites the Schloendorff case as important in the framing of the doctrine [*Schloendorff* v. *Society of New York Hospital.* 211 N.Y. 125, 105 N.E. 92 (1914)] "Every human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent commits an assault, for which he is liable in damages." (p.194)

exhibits an inequality of powers. However, the doctor-patient relationship remains reciprocal even in the face of this inequality since physicians cannot practice biomedicine without patients. Physicians assume a dominant role due to their knowledge; the patient is expected to be passive (Steward and Sullivan, 1982). Katz (1984) described this situation as unbearable due to the disregard for patients' opinions, volition, and wishes. Whether this claim refers to a generalized situation or is an exaggeration is beyond the scope of this monograph; nevertheless, the result of the societal outcry was a redefinition of the term autonomy when used in the context of the health care system. The focus of discussion on the issue shifted to the active participation of the patient in the process of regaining health; this active participation was called autonomy.

Physicians must respect patients' autonomy. This truism must be followed today by doctors, just as the aphorisms of Hippocrates were respected for centuries. The autonomy of patients is considered to be absolute when compared to the power that physicians have to make decisions. Ultimately the choice of treatment belongs to the patient, even if there is no choice regarding the diagnosis and expected outcome. When contrasted with theoretical ideals, a series of compromises and qualifications have to be made to allow the doctor-patient relationship to function. Usually the patient still acquiesces to the physician's discretional power.

Patients' autonomy must be qualified. Thomasma does it, when writing in 1983 that "autonomy may not apply in some medical treatment contexts" (p. 3) and that "the impact of disease on personal autonomy limits self-determination" (p. 4).

Nevertheless, he also indicates the problems that bioethics face: "the autonomy model as a model is also severely limited. It has been constructed in dialectical opposition to a paternalistic model. But neither paternalism nor autonomy correctly describe the ethical norms governing the doctor patient relation" (p.4). Autonomy implies the right to decide, in a relationship, according to personal convictions and legacy. It also implies that the decision is going to be respected by the others involved in the relationship. If only one partner is being respected in his or her autonomy and the other(s) is (are) not, the relationship is unequal and unethical. Power and autonomy are not antithetical. If autonomy is understood as the exercise of power, they are the same thing. If power is interpreted as "the ability to form and effect one's will" (McCullough, 1999, p.5), then it is the same thing as autonomy.

TRANSITION

According to certain medical traditions, each patient is regarded as an end in him or herself. The professional aim is the patient; in other words, the patient and his or her ailment are interpreted on an individual basis, no matter how long a consultation might last. In other healing traditions, such as the ancient Greek, the diagnosis was a public process, sometimes involving public debates in which autonomy and confidentiality, which American society regards highly, was hardly an issue (Ackerknecht, 1992; Bates, 1995; Conrad, 1995). With the introduction of biomedicine and, later, biomedically managed care, the aim of the consultation became the diagnosis of a disease. The time spent with each patient, or the productivity, plays an important role for the physician, the health care administration, and the health care policy makers. Thus, the medical practice migrated from a "giving" association with the patient, to a "taking" one (Rabinowitz, 1980). The health care system no longer cares for the individual and his or her soul; instead, it treats the person's disease to maintain a healthy and productive society.

Physicians expect to earn a living from their profession; their acts impact economically on a set of paramedical professions and the budget of the government. From the physician, one expects not only efficacy, which is a term usually related to the quality of the service provided, but also efficiency, which is a term usually related to the amount of service provided. At the same time, the vast majority of all cases of illness are never seen by a physician (Sigerist, 1936). In US, a third of the people who are ill seek information online (Berst, 1999), which demonstrates that there is a changing pattern in the retrieval of health care information by the patient and/or the patient's social network. If this trend will reach Canada is still to be seen.

With the patient trying to voice his or her will, and the physician entrenched in his or her biomedical judgment, the conflict that bioethics should try to mediate is cultural. However, bioethics uses the same tools as physicians to evaluate and understand conflicts, therefore, bioethics has gained legitimacy inside the health care system, but has little credibility as a critic of the system.

Chapter Two:

ENCOUNTERS AND DIS-ENCOUNTERS

Medical school gives people the possibility of becoming members of a type of ruling class (May, 1997). To fully acquire this status, however, a student must acquire the biomedical culture. Twentieth-century Western biomedicine can be seen as a cultural system. The organization of medicine reflects the hierarchical system of social stratification in the larger society, which allows physicians to use biomedicine to focus on the biological, rather than the social, origins of the patient's conditions (Kahn, 1995).

The doctor-patient relationship changed not only because medical science changed, but also because society is no longer the same. The physician is a stranger performing an act or service on a fee for service basis. The physician is expected to be trained in a university and offer current professional services to his or her patients. He or she expects to be paid for the services provided. However, these services imply the care that would be identified by the patient as, at one time, gratuitous. When health and disease were linked to religion, care was connected to compassion and was thus a religious or social duty. The healers of the past are romanticized as always caring and compassionate, with a quasi-sacerdotal approach to the profession and the patient, unlike what today is seen as a mercantile approach to disease, with a consequent trivialization and commercialization of the suffering. Contrary to what is commonly believed, moreover, advances in medical science have not made physicians better healers (Warner, 1995).

Each consultation is packed with social, cultural, religious and scientific signifiers. Each signifier conveys a measure of value different for each participant. Unaware of this clash of values, the participants have disparate goals for the consultation. The objectivity of the biomedical consultation may be contrasted with the subjectivity of the expectations of the patient; further, the objectivity of the biomedical standard of care may be contrasted, on the user's side, with the ignorance of these standards

The exchange of information is basic to any consultation from either of its participant's points of view. How the patient emotionally perceives the doctor is directly related to the information-exchange behaviors. This physician's behavior directly influences the outcome by affecting satisfaction and compliance (Frederikson, 1992). The physician may perceive the patient as "easy" or "difficult" based on the degree of collaboration and deference he or she receives. An effective communication between both partners in the consultation is only possible if they agree in a common cultural ground, where the exchange of information and emotions can be carried on (Balint, 1984). This is an exchange of signifiers (Lacan, 1985).

Sontag (1989) wants to liberate illness from its metaphorical content. She believes that the metaphorical contents reveal prejudices regarding the way we see disease and the diseased. If eventually we are all going to fall sick, ill, or disabled, we should have an unprejudiced vision of the road ahead. Putting aside the discussion as to whether illness, in the broad sense, should or should not be seen or interpreted metaphorically, diseased people do indeed use metaphors to express themselves. The problem resides in the use and interpretations of these metaphors. Currently, the metaphors imply unfair suffering and disability, with the diseased person requiring care and compassion, consequently, these metaphors feed the unbalance in the doctor-patient relationship.

To gain a greater understanding of the dynamic relationship that exists between biomedicine and lay people, we have to review how biomedical knowledge is used, primarily in the clinical encounter.

Section I - THE SCENARIO

To provide care for the needy is one of society's most important roles. The health care system appears to answer this need (Mustard and Frank, 1991). The projected aim of the health care system is to supply services and thereby improve the status of health of the population (Pineault, Contandriopoulos and Lessard, 1985).

For the health care system, "health" is the absence of diseases or injury (Mustard and Frank, 1991). As such, health is an absolute scale of values. Still, for Mustard and Frank, the health care system is reactive in nature. It "responds to perceived departures from health, and identifying those departures in terms of concepts and categories defined by health care professionals" (p.7); in other words, the absolute scale is defined by biomedical professionals at the service of the system, for the use of the system. For Gelfand (1968), medical aims are linked to the restoration and maintenance of health. Since health, restoration and maintenance are defined within the system, this closes the cycle of self-serving definitions.

In Quebec, there is a tendency to call for the participation of society in the management of the health care system (Lemieux et al, 1994), even if physicians' voices are still the majority. Pineault, Contandriopoulos and Lessard (1985) contend that health care policy should include the determination of health care factors outside the medical system, and not only the ones already covered by the medical care system. Underlying this observation is the distinction between the health care system and the medical care system, which is present in their paper, but absent in Quebec, where they made their study.

Today, while there is a lower mortality rate due to infections, there is an increased prevalence of chronic and degenerative diseases. At the same time, the increased focus on health issues in the media generated a climate of "apprehension, insecurity, and alarm about disease" (Barsky, 1988 p.414). The popular belief is that quality of medicine and level of health care are the same thing, and that biomedicine is a source for overall improvements in health (Lalonde, 1975). Biomedicine gains a new dimension and is set the task of repairing the decay of the human body due to increased longevity.

Many assume that biomedicine is the sole factor responsible for the increase in life span and the improvement detected in public health indexes. McKeown (1976) disagrees and proved beyond any reasonable doubt that public health and medical practices were not solely responsible for the decline in mortality due to infectious diseases in England and Wales in the period between 1838 and 1970. Social and economic improvements of the population had a much more significant impact. Although McKeown's conclusions are criticized by some, his work greatly influenced health policy in Canada; for example, this has been implied by Mustard and Frank (1991).

Technology simplifies daily tasks and chores and intervenes in human lives. However, not only are we as individuals applying technology at a growing pace, institutions are now doing the same. These institutionalized technological interventions in individuals are creating ecological, health, social, and psychological crises (Trosko, 1989). The modern dream of science "know-all-can-everything-science," is but a dream, particularly when biomedicine is the science. What we are dreaming about is that the enormous accumulation of scientific knowledge did something to insure certainty to biomedicine clinical-practice (Wiesing and Welie, 1998). The fact is that today's therapeutics can still be summarized by the following scenario: if the patient presents a recognizable disease, sign, symptom, or "thing," the physician will react by prescribing an "anti-thing." This is the Galenic theory of the contraries with a scientific robe. Furthermore, government officials and patients, according to Siegler (1993), seem to believe that due to technology, physicians can easily maneuver from symptom to diagnosis without the need of interaction with the patient.

The existence of a "calling" was implicit in the early medical profession, which meant that a physician owed a duty to a patient (Picard, 1981). According to

Kodner (1998), physicians are no longer concerned with building connections with their patients. They are no longer willing to accept transference. Without an emotional tie, the care-role is lost and the supposed care-giver seems indifferent; in the case of physicians, they are transformed into just another category of technicians in a world of technicians. A doctor loses his or her individual face and, as Kodner states, there is no longer any difference between a physician and an institution. This progressive institutionalization of medicine also shrinks the physician's role (Pellegrino and Thomasma, 1981); simultaneously, physicians see their power over the patients increase in their agency of large-scale health care institutions that organize and deliver care for society (McCullough, 1999, p.1). This apparent contradiction seems to have a simple explanation. Physicians, as individuals, are losing power, but when grouped in the institution, they overcome all recent societal efforts to control them. The institution is the physicians' domain, where patients are outsiders.

Until the last century, patients or their social networks had direct economic exchanges with their health care providers. With the rise of third party payers, an idealization of the possibilities and infallibility of technology appeared with a sense that health could be offered on demand. This was shared by doctors and patients alike (Marsh and Yarborough, 1990). The more dependent on technology we are, the less self-determined we become; since all technological efforts come with a price tag, the measure of the value of life may be dangerously close to its intrinsic economic value (Thomasma, 1984). Physicians are pressed to lower costs in health care. To do so, primary care physicians, the "gate keepers," often delay their referrals of patients to specialized treatment. This trend exacerbates the deterioration of the doctor-patient relationship. The system decided that the cause for the increase of health care costs was the physician, and in order to control the expenditure, physicians had to be managed, controlled, and restricted (Kodner, 1998). All other reasons for the increasing health care expenses, which includes the higher price society has to pay for longevity in chronic diseases, are placed in a secondary plane. Instead, physicians are held responsible for the results they obtain.

The maintenance of the health care system, its institutions, health care professionals, and supporting staff requires a significant expense for the Canadian society. Bywater (1998) believes that, at a certain moment, doctors became responsible for the ever-increasing health care costs and as a result, they should be managed, controlled, and restricted. New managerial trends appeared to help acquire control over costs, which is reflected by "managed care."

Managed care is the current administrative version of a health care system, where the patient receives the care needed as calculated by the average cf people affected by similar conditions.[20] In managed care, the patients' cases are managed in the sense that the services to be provided are seen as a product that generates expenses, so there is the need for a manager that will control the costs and make the system more efficient (Lebel, 1996). Managed care is viewed by much of the biomedical leadership as a challenge to the moral identity of the medical profession.

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[20]. A discussion on only one of the many problems that the adoption of this system brings can be read in Barsky and Borus (1995).

They believe that the physician should not be concerned about the costs of health care and the treatment prescribed (Brody and Miller, 1998). Managed care is recognized as not only limiting the physicians' power and autonomy, but also that of the patients (Siegler, 1993). Limiting the maintenance problem of today's medical system to cost management is thus not only an over-simplification, but also the source of different problems.

What is worse, there are complaints about the quality of relationships in our modern world. People seem to relate in a more distant and superficial manner, maintaining a strong attachment to individuality and privacy. This dehumanization of relationships affects both professional and personal networks. This process also affects the doctor-patient relationship. Patients and physicians have a different view of the content of a consultation. In general, doctors spend one minute explaining situations to the patient; while patients are aware of this, doctors remain under the impression that they spend much more time in this task (Rauffenbart, 1984). Lock (1995) shows us that, at the same time, physicians are becoming more distant from their patients as people, yet closer to their patients as diseases. She demonstrates that biomedical terms such as "disease," "health" and even "patient" are created by biomedicine in a certain context, and are therefore arbitrary. This arbitrariness is, in the biomedical field, understood as truth and is transformed into authority. When faced with the patient's subjective truth, this arbitrariness casts serious doubts upon the authority of biomedicine, which in turn forces the practitioner to create more uncertainty to impose upon the patient and society.

People seem wary of distrusting physicians since popular beliefs regarding the powers of science are on a rise. The weekly tabloid *Sun* (Potter) provides an example of how the media treats biomedicine and how the public likes to see biomedicine portrayed. In its issue of December 8, 1998, the headline reads: "Latest Medical Breakthroughs! New Miracle Cures" and describes the findings about heart disease, cancer, Alzheimer's disease and other diseases. Biomedicine and its living representative, the physician, become, in the process, victims of these images of infallibility, omnipotence, and omniscience. The physician is victimized by his or her own beliefs. He or she shares and promotes the superiority of biomedicine when compared with other medical traditions. However, he or she cannot fulfill the expectations of his patients.

Searching for an emotionally satisfactory solution to the discomfort that he or she is experiencing, the patient surrenders to the physician's power (Balint, 1984). Patients bring their diseases, their illnesses, and their sicknesses into their physicians' offices. Patients identify the biomedical model as capable of offering a complete cure or even of miraculous salvation. They assume that, once the consultation is over, they will be cured. In moments of crisis, the imperfect biomedical model is replaced in the patient's mind by a precise science, an almighty biomedicine that can only exist in an imaginary realm. Reality will be summarized in a fifteen minutes consultation, during which patients tell their history, disrobe, are examined, get dressed, receive some sort of professional orientation, and are then acknowledged upon exit.

Section II - THE PROCESS OF THE CLINICAL ENCOUNTER

Insiders and outsiders, science and practice, expectations and realities, doctors and patients, will finally meet and measure one against the other in a clinical encounter, the stage where upon which social roles related to health are played.

According to Mechanic (1972), 75% of all people have, in a determinate space of time, symptoms that will force them to an action, whether it ranges from self-medication and rest to help seeking. These people are forced to act because their perception about their bodily functions is somewhat different from prior experiences or from general knowledge. The relationship between a person and a pathology start with the realization of sensations: one feels ill and recognizes that he or she is sick due to a disease. In other words, a disease for the diseased is the anatomical and pathological complex that manifests itself as an illness with its sometimes characteristic signs and symptoms. A sickness includes the social content surrounding the patient, the supporting system, family, and society (Young, 1982). It can be said that an illness starts with the awareness of an abnormality.

A person, in general, takes on many roles (Barber and Kratz, 1980). In this monograph only a few will be of importance. To be an acceptable sick person, one must personify the sick-role: a set of acceptable behaviors that will allow the legitimization of deviations or non-fulfillment of other social roles (Denton, 1978). It is this personification that will give legitimacy to claims of suffering and help seeking, while simultaneously justifying the assistance and privileges of being a patient, the so-called secondary gains (Goldstein, 1961).

The classic definition of the sick-role was given by Parsons in 1951 (1964, p. 439) and, although criticized, it is still the classic reference for all discussions about the issue. Parsons' model is constituted by four normative expectations: (1) the sick-role justifies incapacity and bestows the right to its exercise, (2) the sick-role gives the right to exemption from other social roles responsibilities, (3) there is a duty to recognize that illness is undesirable and therefore the ill person should seek for help, and (4) the sick person has the duty to cooperate in the process of getting well. First, we have to clarify that Parsons' model is a biomedical model (Segall, 1976) and, as such, its existence is bound to the biomedical paradigm. Furthermore, this model appears to better describe the acute patient. For the chronic patient, therefore, Mechanic and Volkart's now classic description of illness behavior seems more complete: "the way in which symptoms are perceived, evaluated and acted upon by a person who recognizes some pain, discomfort, or other sign of organic malfunction." This behavior triggers a five stage set: (1) the symptom experience stage, (2) assumption of the sick-role, (3) medical care contact, (4) dependent patient role, and when possible (5) recovery and rehabilitation (Mechanic and Volkart, 1961). This is so-called illness behavior. The biggest criticism Parsons had to face was about deviancy; however, he clarified the misconception by clearly stating that illness was not a deviant behavior (1975). Arluke, Kennedy, and Kessler (1979) reevaluated Parsons' model and concluded that, even more than twenty years after its formulation, it was still fairly accurate, since there were only minor variations in their sample's results. To summarize, then, the sick person is helpless, and in need of help; is not responsible for his or her "deviant" condition; is not competent to help him or herself, thus, a handicap or disability is imposed upon him or herself; and, is unable to function normally in his or her life pattern. A very important point in this discussion is that the sick-person, as layperson, is unfit to judge the technical qualifications of the health provider.

The sick person belongs to a minority group, the one exposed to society as abnormal and in need of care. Diseased people must fulfill their sick-roles in order to maintain a place in society despite their abnormality. Part of this expected behavior is help seeking. On the other hand, help must be provided so the cycle of legitimacy can be closed. A new social role is now performed by this person, since society needs sick people to justify some of its structures.[21] If no treatment is available, or is perceived as unavailable by sick people or society, the non-completion of the role will be followed by the exclusion of the affected person from the society (Schwartz and Kart, 1978; Denton, 1978). To recapitulate, then, the natural or expected cycle of disease is: unwillingly falling to a disease, help seeking, treatment, and finally healing or death. The cycle has to be completed, or perceived as completed by the person and his or her social network, in order to satisfy the customary social behavior facing sickness (Steward and Sullivan, 1982).

Illness transcends the state of the person to become an institutionalized role. This and other roles lead to the asymmetric structure of the health care system due

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[21] With the risk of being misinterpreted in mind, an example is the existence of poor people in India legitimating the role of Mother Theresa of Calcutta. If it were not for them, she would be a benefactor without a cause.

to its hierarchical components of power, authority, and prestige. North American health care is the prototypical hierarchical structure. The asymmetry could be based upon the institutional certification of the physician as responsible for health care. The health care system has a presumptive competence to deal with health issues, which compels the patient to look for it and to close the cycle of roles (Parsons, 1975). At any rate, the morbid state for the patient is simply another norm to live by (Canguilhem, 1982).

A physician's self-image is constructed upon the answers and expectations of their patients, who are, for doctors, the most significant "other" (Malmsheimer, 1988, p.15). Therefore, physicians become what their patients expect them to be. This also explains why doctor and patient's roles are complementary. If for any reason these roles are unfulfilled or are interpreted thus, frustration and rejection will result (Rynearson, 1975).

Unconscious mechanisms like denial, dislocation, condensation, projection, and identification start to take place in the relationship of the patient with his or her disease, and with the structure or persons that will act upon it. The subconscious, characterized by its symbolic language, equality of values for both internal and external reality, or supremacy of the internal, predominance of the principle of the pleasure, absence of chronology, and absence of the concept of contradiction, (Tallaferro, 1972), will have, as in any other human encounter or action, a chief role in the doctor-patient relationship.

The doctor-patient relationship has been studied by many authors like Ey, Bernard, and Brisset, (1978), Freud (1912), and Goldstein (1961), just to cite three publications that treat the psychological construct called "transference." This is a basic phenomenon that rules human relationships in general and in particular, when an exchange or delegation of power occurs (Canguilhem, 1982). Transference is a repetition in the present of an old relationship. It is an anachronism in the sense that the feelings, defenses and impulses related to a person in the past are transported to someone else in the present (Freud, 1912). Transference is the act of shifting something from one form to another. In the sense that is being used in this paper, it is the displacement of feelings and internal images from a patient's significant adult to the healer (Perestrello, 1982). In the transference, the patient projects his or her emotional content toward the physician. The doctor is susceptible to projecting his or her impressions, sensations, or emotions towards the patient, which mobilizes internal conflicts. This is called counter-transference (Capisano, 1987). The phenomenon of counter-transference consists of "thoughts, feelings, and actions toward a patient that are evoked by the patient's behavior, but that the physician experiences to be a part of, or at least caused by, the patient" (Stein and Apprey, 1985, p. 9).

Since biomedicine evolves, a genuine symptom of an organic disease may or may not be validated in a certain moment; the legitimating process is reciprocal even if what is signified is different. The interaction between physicians and patients also shapes the changes in the manifestation of diseases. There is a sensible evolution of what could be a "genuine" symptom of an organic disease in time. Certain symptoms may or may not be considered acceptable to the validation of the sick-role at a certain moment in time (Kleinman, 1986; Shorter, 1992). This is the phenomenon that Balint (1984) refers to when stating that the patient uses his or her symptoms to build a transferential relationship with the physician. The patient adapts what he or she feels in order to seduce the healer.

Capisano argues that a doctor-patient relationship occurs on two levels: (1) the superficial, where the leitmotif is the disease, and (2) the profound, where the leitmotif is the transference (1987). At the superficial level, issues such as power-autonomy-paternalism may or may not be relevant; at the profound level, however, they are not if the patient surrenders to a transferential relationship allowed by a non counter-transferential physician.

The practice of biomedicine can be as generic as family practice, and as specialized as hand surgery. Its pacing may be peaceful, as in plastic surgery, or chaotic, as in an intensive care unit. The setting may be rural or in a university; the physician, however, always has contact with his patient in the clinical encounter or consultation.[22] The clinical encounter is anything but a simple meeting. A patient seeks a physician, but brings a complex set of personas with him or her, which is the micro society that the doctor will try to soothe, heal, or cure. On the other side of the desk, the patient sees a person invested with many roles, who seems capable of exerting some sort of useful power upon him or her. The bilateral distortion of reality is not usually perceived by both sides and the consultation progresses as if no further adverse consequences could possibly arise. Underlying this simplistic view, a network of guilt, expectations, and Weltanschauungs provide a fragile support for each participant.

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[22] Some biomedical specialties do not need a clinical encounter proper, such as radiology, forensic, pathology, etc.; however, they receive the necessary information to perform their duties from other physicians who had a personal encounter with the patients.

The desk separates two different worlds in a very unequal exchange of meanings; its professorial role signals to each side the territories and the degree of unevenness of each party. The place each one occupies in relation to the desk also shows where the power is and who holds it. However, the geography of the office only exemplifies one of the many signs that abound in this relationship that hardly can be understood in its entirety. In the clinical encounter, the division of power is unequal as it is unequal when anyone seeks for advice or professional help in any field. This is an unavoidable part and characteristic of the consultation. If participants had the same level of knowledge and ability, a consultation would be unnecessary.

The clinical encounter occurs in a moment of crisis in the life of the patient. Presumably, certain defense mechanisms such as psychological denial, home remedies, and friends' advice, have already been consulted with no results. Impotent and suffering, facing his or her own mortality, the patient puts on the sick-role and seeks a physician. Together with the disease, the sick person goes to the consultation and offers his or her culture, personality, and Weltanschauung, *i.e.*, his or her self. The patient seeks a cure, relief, care, and sympathy, though not necessarily in this order. These needs put the patient in a receptive mood for the inquires, requests, and instructions of the physician. The patient also anticipates the explanatory power of biomedicine, which is required to help cope. On the other side, the physician receives the patient not only with his or her own self, but also with the role offered by the legitimate investiture of a healer. The physician is not in a personal crisis, or should not let one interfere with his or her expected professional role, and must provide the help that is implicit in the transaction (Rynearson, 1975). A consultation is an objective meeting with, in biomedicine, a precise technique, development, and aims. It is not designed, nor is the physician prepared, to deal or merge conflicting explanatory systems. Since consultation, diagnosis, disease, treatment, and outcome are defined by biomedicine, their meanings are clear for the physician. The understanding of these and other terms are part of the biomedical culture; to be a biomedical practitioner means to acquire this culture. For the patient the meanings are forcefully different; if they were equal, they would be sharing the same culture, which would mean that the patient was also a practitioner. Professional views are always a reworking of cultural views, and both are personal experiences (Kleinman, 1987). In a broader sense, Kleinman states that patients' metaphors cannot be easily interpreted by a rigid system like that of biomedicine, which leads to uncertainty in the practice of biomedicine, in contrast to the apparent certainty of biomedicine science.

In the clinical encounter, both the physician and the patient play roles and build a relationship. Generally, in a consultation there is a patient, invested with a sick-role, and exhibiting an illness behavior, who suffers the effects of transference to a physician. The doctor is invested with the healer-role, and exerts the professional power conferred to him or her by society through the licensing process. The communication is an exchange of styles of reasoning; the outcome of this clinical encounter is interpreted by each of the participants under the light of their own expectations. This uneven relationship finds its aim in the well being of the patient. It is biomedicine that defines well-being.

Biomedicine also has a very important role in defining the hierarchical structure of symptomatology, which designs the standard of care and specifies the means to achieve certain predetermined outcomes. In other words, it defines the professional role in the clinical encounter, the expected results of the encounter, and frames the patient's participation. Biomedical power allows the definition of efficiency and efficacy, the clinical definition of a disease, the treatment of this disease according to the designed standards, and the definition of what is an acceptable outcome, and thus indirectly defines health and disease. This set of exercises of power help to define biomedicine as a discipline and as a science. To diagnose and to treat are the two acts that define the biomedical profession; if power has a major part in each of these constituents, it has a major role in biomedicine and its practice (Furst, 1998).

The personalized treatment is crucial by being socially recognizable. Without a recognizable treatment, there is no legitimacy of the sick-role. If the diseased cannot fulfill the sick-role, the social network cannot justify the acceptance of the diseased. Consequently, the illness is not validated and the abnormality caused by the disease becomes apparent, which jeopardizes the social status of the person. This frustration is so common that Western society created social structures to deal with it, the so-called special interest groups. The doctor is also defeated in the process since his or her own role as a healer or care-giver remains uncompleted.

This cycle, for the biomedical professional, calls for a series of acts, structures, services and allied or paraprofessionals. The first biomedical act is the diagnosis; it is reached based on a series of direct interventions like clinical examination and laboratory procedures. Based on this diagnosis, a treatment is recommended or performed.[23] One should note here that the availability of a specific treatment and compliance to it are not the responsibility of the physician. The physician's responsibility is the diagnosis and the disclosure of available options for that specific case. The efficacy of the treatment, on the other hand, is the responsibility of biomedicine-science, since the results of a certain procedure or drug prescription are defined by the profession, based on its own evaluations and standards.

"Medicine is a habit of clinical judgement" (Pellegrino and Thomasma, 1981, p. 3). When equating the whole medicine to the clinical judgement, the authors take a strong ideological position in relation to the science/practice dichotomy in the biomedical domain. Indeed, as interpreted by Leeuwen and Krisma (1997), the practice of medicine is independent of concepts such as disease, and the physician does not have to understand the meaning of being ill.

When schematizing the doctor-patient relationship, we can say it is a transaction of information between two different symbolic worlds, which results in a set of actions that will forever transform both participants (Nessa, 1996). The patient brings into the consultation a system of reasoning that will be confronted with that of the physician. By the end of the consultation, they will have built a synthesized system (Kleinman, 1988). The patient desires this modification; indeed, that is why he submits himself to the consultation. The physician, however, will defend himself against a deeper emotional involvement by acting defensively and

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[23] The kind of treatment, surgical or clinical, that is going to be used in each specific case does not change the basics of this study.

building inequalities into the process (Capisano, 1987). The doctor is prepared to offer his or her patient only a product: a healthier life, as defined and constrained by the capabilities of biomedicine (Abramovitch and Schwartz, 1996). The patient wants much more: he or she wants a healthier life as defined by his own values. With the emergence of this conflict of interests, bioethics gained momentum.

The physician thinks he or she is neutral and detached when evaluating the patient. However, he or she is totally connected with preconceptions that are based on nothing other than his or her training. He or she is not a simple evaluator or a neutral judge of the situation, he or she is an active participant of it.

Section III - ONE ILLUSTRATIVE CASE

It is frequent that the relationship between doctor and patient is tense and unpleasant. The number of diseases is limited, and the first question the patients pose to themselves and to the physician is which disease afflicts them. The disease is present before the presence of the physician; once organized, it becomes part of the personality of the patient.

This paper is not a casebook. However, at this moment I am going to resort to a hypothetical case to clarify some points.

The hypothetical patient is a black male forty-five years old, in good health until a couple of weeks before the consultation, when he started to feel sporadic dizziness specially when changing decubitus. He decided to consult with his physician specifically for these complaints. His neurologic, acoustic and vestibular examinations were normal, as were all the rest of his physical and laboratory evaluations, except for high blood pressure. Due to his age and family history, the physician decided to more aggressively treat the patient's hypertension. During the course of his treatment, with the lowering of his blood pressure, the dizziness worsened. Complaining again about it to the physician, he was informed that the dizziness had no apparent physical correspondence, and to ease the symptoms he should avoid caffeine. Also he was told that the anti-hypertensive treatment was necessary to maintain his health and that he would eventually learn to live with both the dizziness and the hypertension.

There is a difference between the disease seen by the physician and the illness felt by the patient. As such, there is a difference between what the physician is going to target and what the patients wants the physician to cure. Some undesirable situations, like the dizziness in this case, are not defined as diseases because there is no specific treatment for them or because they fall into a category that medical judgment declares not to be a disease since the organic behavior is still within normal ranges of variation. If there is no disease, there is no need to cure. A cure can be understood as a change that is assessed, facilitated, mediated, and monitored by doctors. Therefore, the outcome determined by a change is not necessarily the one designed or desired before the intervention by the patient (Wright, Watson, and Bell, 1996).

This case is a good example of the physician's power to define a disease, what should be treated, how should it be treated, and how to evaluate the results in terms of its success or failure. The physician acted ethically and responsibly according to the current protocols. The effective control of the hypertension was achieved and a potential risk for the patient was eliminated. The patient, however, still feels sick, and feels betrayed. His confidence in the physician is shaken. This patient's situation confront the problem with disparate ideas about biomedicine's capabilities.

Patients should be seen as a metaphoric text, but the scientific method provides only one tool to normalize metaphors. Physicians cannot read their patients perfectly; patients are more aware of it now than in any other moment of history.

Section IV - AFTERMATH

Biomedicine in general has limits. It is not always efficacious or efficient, so the cure may not always be achieved, according to the patient's viewpoint. Frequently, some type of residual impaired function remains in the organism; sometimes, the price to pay for the recommended procedures have a strong impact on the quality of life of the patient, either economically, functionally, or both. The contrast between what is expected and what is accomplished has a major effect on how biomedicine and its paradigmatic persona--the medical doctor or physician--are judged by the ordinary person, society, and the law. Other medical systems that attribute the causes of illness to supernatural or external agents do not have to face this assessment since the difference between what is offered and what is obtained is not so dramatic,[24] as one can deduce from the many ethnographic accounts of

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[24] Since the cause of the disease is regarded as supernatural, the patient is the one to blame for the outcome by somehow meriting the disfavor of the supernatural powers. For an exposition on different philosophical schools of medical thought, see Manning (1973).

other medical traditions.[25] The contrast between a personal interpretation of physical feelings and the expression of their values and how they are translated into an impersonal science, bring the major conflict between how the patient thinks and acts and what he or she expects from the world as an answer to the expressed and unexpressed needs and the scientific and professional answer given by the health care system and the health care provider. One is a generic, quasi-platonic quest, the other is a specific answer. The answer does not match the question. They are in different reference frameworks.

Aspects of human communication are metaphoric, as disease is metaphoric. A sensation or emotion cannot be precisely described in words, it must be translated or rationalized; during this process, it ceases to be a sensation and becomes a symbol, metaphor, or image. Simple explanations may be, and are, used as tools to exert power over the explicandum. The one that explains creates the image of whatever is being explained. During the clinical encounter, biomedicine appropriates the images to use them practically and rationally.

The physician is the main actor in the clinical biomedical scenario. He or she interprets the body and its functions, makes the anatomical-pathological correlation, and presents the patient with a diagnosis. The physician also prescribes the treatment and performs any necessary invasive procedures. Another responsibility linked to the doctor is the clinical research of new therapeutic measures. In fact, the physician's role is so inextricably linked to the science of biomedicine that the successes, failures, and responsibilities of the latter are often confused with those

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[25] To cite just one example, see Evans-Pritchard (1976). In this account, the medical system aims to discover the witch who caused the death of the person.

of the physician (Freidson, 1988). The patient's expectations regarding the results of the treatment are thus indiscriminately leveled at both the physician in particular and biomedicine in general. But the physician plays a double role: (1) as care-giver and (2) as the researcher. The ethical profile of the two relationships is different: while the physician must care about a specific patient, the researcher is more concerned about a future hypothetical patient (Cattorini and Mordacci, 1993). The physician is caught between an impersonal science with a mandatory standard of care and a patient with personal conceptions about health and disease; what appears to be lost is the outcome. For Lynn and DeGrazia, "what matters to the patient, and should matter to the practitioner, are the patients' future possibilities. More specifically, what is important, is the character of the alternative futures that the patient could have and choosing among them so as to achieve the best future possible with the ranking of outcomes determined by the patients preferences" (1991, p.325). Biomedicine cannot offer custom-fit outcomes, even if it recognizes disease as a personal event with a scientifically known natural history.

Once a diagnosis is obtained, and confirmed by laboratory evidences, the methodological requirements of the profession are satisfied, the diagnosis conclusions probably conform to the research data, and the professional aspect of the relationship cannot be criticized on these grounds because it is in conformity with the current standards of the profession. The physician has complied with all his or her legal and scientific responsibilities. The physician has the power to make decisions, to fully exert his profession, from the selection of relevant signifiers in the interview, to the interpretation of the system of reasoning of the patient. It is based on these assumptions that the physician will offer a treatment. One must note here that while the diagnosis is in most cases an objective conclusion based on scientifically observable or measurable facts, the treatment may be a choice between (1) one or more different procedures and (2) no treatment. Often, the professional judgment will be that someone needs a treatment, and the prescription or therapeutic procedure would be offered by a physician in a consultation, since without this medical intervention people suffer a triple deprivation: (1) their trouble, (2) the non treatment, and (3) the proof that a diseased one does not really belong to society (Mechanic and Volkart, 1961). This is identified with medical care. The patient or the supporting structure will look for the best therapeutic option. This is their part in the sick-role. In most cases, however, people will only find generic or symptomatic treatments. The expectation of a specific treatment for a specific disease afflicting a specific person, *i.e.*, a personalized treatment, is not fulfilled. The patient and the social structure, as a result, feel betrayed because biomedicine appears to have nothing to offer. Also, patients want an explanation about their illness. The more powerful the explanation, the more powerful the science and, in turn, the more powerful the system, the medicine, and the healer. However, biomedicine offers an explanation about diseases, something alien to the social needs of the patient. Without fulfilling such a basic need, biomedicine places itself in a fragile position regarding the justification of its social power, its self-regulation, and its influence in many aspects of common life. Biomedical culture migrates from an integrated part of the society to a marginal and disturbing position. Biomedicine is required by society as a whole, but according to the terms dictated by that society and not those of biomedicine.

Therefore, the result of a clinical encounter is a personal epistemological clash.[26] "Because health is simultaneously normative for the medical relationship and subject to personal and social interpretation, expert assumptions about the goal of medicine and patient assumptions clash. These clashes are most often the result of differing, non-explicit conceptions of health. Since the goal of medicine is to restore health, this task must rest on dialogue to establish the parameters and functions both doctor and patient will assume to reach the goal" (Cassell, 1991, p 50). Biomedical science does not accommodate patients' desires for personal and personalized care that is aimed at their current needs and adapted to their expectations. In addition, an individual patient's culture and metaphorical language are ignored during the consultation. The physician's only instrument is the impersonal biomedical methodology; the results that he or she obtains are satisfactory only on a legal and scientific basis. He thus cannot fulfill the patient's request for personalized care because there is no provision in biomedicine-science for individual care. Biomedical culture does not recognize a metaphorical language and refuses to enter into a dialogue with other cultures regarding its professional domain.

Both physicians and patients have expectations about the practice of biomedicine. Also, doctors and patients evaluate the meaning of success differently

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[26] How an individual comes to know, the theories on beliefs about knowledge, and the manner by which such premises are integrated in rational processes are explained by Hofer and Pintrich (1997) as personal epistemology.

when it is applied to a therapeutic procedure (Kleinman, Eisenberg and Good, 1978). When asked about their satisfaction with the health care provided by the system, the patients' responses were grouped around four major variables: (1) satisfaction with the outcome, (2) satisfaction with the care provided, (3) in relation with patients own expectations, and (4) satisfaction with the level of communication between doctor and patient (Cook, 1988 p.9). If the patient is unsatisfied with the outcome that he or she cannot decide, if the care provided is unsatisfactory due to the impersonal character of the system, if patients' expectations are pumped up by the media and the level of communication between physician and patient is bearably reasonable, the least one can expect is that patients do not trust the system, the science and the practitioner anymore.

As the fulfillment of an expectation, satisfaction can only be interpreted on personal grounds, where individual values play the major role. One cannot ignore the patient's expectations in a consultation. Healing suggests a sensation of well-being, wealth, health, and is a return to normality, but normality is an explanatory tool. The physician cannot be deaf to the patient's signifiers, since they are the frames of his particular concept of health, and they alert the physician to the level of functionality the patient wants to achieve. According to Gelfand (1968), the final proof of value to a medical epistemology is the alleviation of disease: the better it does, the better it is. Scientifically, physicians compare their patients with statistically normal standards, and exert their power to align them with that norm by interfering directly in the patients' body. However, patients cannot be compared to statistically normal standards, since they are not a parametric entry in a table.

Unfortunately, the physician does not receive scientific instruments to interpret each patient separately and to act accordingly. Since all biomedical data is available as a result of statistical inference, the patient becomes more of a probability than an individual. However, the human context contaminates the results of scientific observation, whether due to gender (Little, 1996) or socio-politics (Franco, 1980). There is no neutrality or everlasting stability in the value or concept of the norm, even if a search for accurate results in medical science is an old endeavor (Barlett, 1848; Cabanis, 1803).

Kleinman, Eisenberg, and Good state, "Contemporary medical practice has become increasingly discordant with lay expectations. Modern physicians diagnose and treat diseases (abnormalities in the structure and function of body organs and systems), whereas patients suffer illnesses (experiences of disvalued changes in states of being and in social function; the human illness and disease, so defined, do not stand in a one-to-one relation" (1978 p.251). The main proof of the worth of a specific healing system is the satisfaction of the patients with the results (Gevitz, 1993). Furthermore, when biomedicine attempts to control the so-called undesirable, it becomes a moral enterprise (Freidson, 1988). Too often, biomedicine is an unsatisfactory moral enterprise.

The experience of illness is personal. For the patient who is suffering, the physician is a figure of more importance than a counselor or a partner in the decision-making process. The immediate need of relief obliterates any other rational thinking. If caring for the diseased or underprivileged has a long history, the identification of this figure with the physician is recent and short-lived. A trusting patient only surrendered to a caring physician between 1880 and 1950. Before that period, physicians were sometimes threats to their patients; since then, patients have grown distanced from the medical profession through self-diagnosis and auto-treatment. Physicians today are seen by their patients as drug dispensers (Shorter, 1990).

For Barsky (1988), there appears to be a decline in satisfaction with personal health. People report an ever-growing number of disturbing somatic symptoms and more feelings of general illness than ever before. At the same time, there is a growing lack of confidence in biomedicine; alternative therapies flourish in the vacuum. The lack of confidence is so significant that patients do not tell their physicians that they are seeking other healing systems (Seligson, 1998). Patients and/or their social networks are so motivated by frustration regarding biomedicine's inadequate treatment of a case that they express their preference for ethnic or cultural practices (Neuberger and Woods, 1990). Whatever the reason, what the patient is looking for is the possibility of building a transferential relationship with a healer, transforming him or her in a care-giver. This can only be done if an individual approach is identified by the patient. The individual approach is one of the characteristics of the holistic medicine system (Frohock, 1992). Holistic medicine also appeals in many other ways: acceptable explanations for the sickness, using parts of biomedicine as an explanatory tool together with mystical ideas whenever necessary. In addition, the healers offer time, sympathy, and frequently a formal promise of cure. With a more pleasant emotional relation with healers there is a growing shift to self care as can be easily seen in statistics demonstrating that 40%

of the patients in the United States used alternative therapies in 1997, meaning a 50% increase since 1990 (Reuters, 1998).

Patients do not know what to do with their physicians. They not only fear but also are also ready to surrender completely if this would warrant his or her attention and good will, or in Kahn's words: "getting a referral, being prepared, being specific, and bring appreciative are ways of obtaining better care from a doctor. Showing up late, overlooking the support staff, ignoring the doctor, and being adversarial are definitely not ways of getting a doctor's attention" (1998, p. 91). Feeling that there is no more any kind of personal care, patients do not reward emotionally their physicians anymore (Koven, 1998). If patients complain about physicians, doctors also complain about their patients. There are some behaviors exhibited by the patients that are regarded as prone to raise barriers between them and the health care team. Ducanis and Golin (1981) describe the "manipulative," the "unmotivated," the "problem" and the "yea-sayer," demonstrating that any behavior between demanding (manipulative) and total surrender (yea-sayer), between easy going (unmotivated) and difficult (problem) is a barrier for the practice of medicine. Maybe the practice of a good medicine, one that would not create problems either for physicians or for patients is one biomedicine without the clinical encounter.

What happens inside the body when struck by a disease if it is not seen as incomprehensible, it is at least unexpected. Instruments of the Western past, used to deal with the disease, where linked to the powerful supernatural. Only recently, biomedical knowledge about health and disease started to substitute the old conceptions. If the way the health care system and its members changed the way they see disease, lay people, meaning the users of the health care system, may not. For part of the population at large, disease is still linked to something more powerful than they are, if it cannot be the gods, so let it be the healer. The many possible interpretations of issues related to health, together with the coexistence of two paradigms, one for the physician and another for the patient, build up a progressive misunderstanding of means and aims, or a clash of rationalities.

TRANSITION

Since it is identified as a science, biomedicine-clinical practice, produces a series of compromises and expectations in the imaginations of lay-people. Physicians are also, to some extent, affected by the same expectations. Everybody seems to believe that biomedicine-clinical practice can fulfill many of the expectations attributed to biomedicine-science; many identify the biomedical treatment or procedure as the material realization of this fulfillment.

While physicians and patients share the same society, they live in different cultures. The clinical encounter assumes the role of a negotiation table where beliefs and truths, along with the instruments used to build them, are constantly put on trial.

As we saw, physicians are not only members of their profession, but also the designers of their science. Physicians decide biomedicine's domain: they determine the tools of the trade and the comparative and determinant value of each procedure. Biomedicine is completely designed by physicians. There is no sin here.

Physicists shape physics, economists, economy, mathematicians, mathematics, and so forth. We can argue that all professions and sciences influence in one way or another the life of humanity; however, the impact exerted by biomedicine is of another sort. Biomedicine has a direct and acute impact on the quality and life span of each individual, so there is an implied commitment in the results.

We live by our social roles, yet these roles are construed historically and culturally. To change them we need time. One must realize that underlying the role of today's healer, there is still a shaman or a priest, who powerfully induces transference (Stein and Apprey, 1985). Our sick-role is still dominated by identifications with a supernatural healing system; the paradigm of the healing system shifted from supernatural to scientific, but patients are still unaware of the shift when vested in the sick-role.

Chapter Three:

NEGOTIATING THE UNNEGOTIABLE

According to Pellegrino and Thomasma (1981, p.69), "medicine is the cognitive art of applying science and persuasion through a complex human interaction in which a mutually satisfactory state of well-being is sought, and in which the uniqueness of values and disease, and the kind of institution in which care is delivered, determines the nature of the judgment made." On the one hand, one seeks help, whereas on the other, someone offers help, so there is an exchange (Rabinowitz, 1980). Without this interaction of intentions, there would be no medicine. Any exchange implies something offered by both sides; if this trade is satisfactory for both, there will be no conflict regarding the negotiation process and outcome. It will be a fair deal. Yet society no longer recognizes the services of biomedicine as a fair deal; this gave rise to the need for mediators: ombudsperson, patient's advocate, special or focal interest group, and bioethicists.

Whatever are the reasons for the development of modern bioethics, it originally represented an attempt to solve conflicts between the system and its users. These contentions may have been as general as the choice of resource allocation among many health programs, or as specific as the appropriateness of the procedure to obtain an informed consent of a given patient for a given circumstance. Ideally, bioethics should be the neutral judge of the appropriateness of the behavior of the system and of the user; it should be the indicator of the most adequate behavior in each and every circumstance.

The major aim of this chapter is to evaluate the role of bioethics in the context of the practice of biomedicine. To do so, some issues regarding beliefs related to cultures in general and biomedicine in particular must be clarified.

Section I - THE THEORY OF THE PRACTICE OF BIOMEDICINE AND BIOETHICS

As explained by Hardin (1988), utilitarianism is the moral theory that judges the goodness of outcomes, and biomedicine is a utilitarian science (Shaw and Barry, 1995). This affirmation is based on the design of the clinical methodology, where statistical justifications are always given to standardize the procedures based on the physiological behavior of a majority. In addition, the ideal clinical consultation has a utilitarian design. However, the aim of the consultation is the patient's well-being, which would be measured by the individual values of each client. This relativistic doctor-patient relationship has little technical support from biomedical science. The practice of biomedicine can be seen as having two main tasks: to comfort and to heal (Dixon, 1978, p. 1). Although comfort can be understood in different ways, professionally it can be summarized as the alleviation of symptoms: it is framed relativistically. What resides in the frame of the healing task is a seed of conflict between users and healers. What insiders to biomedicine define in a utilitarian fashion as healing is quite different from what outsiders understand or, more importantly, feel.

The concept of "separability" must be introduced here. It means that "spatially separated systems always have independently definable properties and existence and these properties exhaust the description of any system made up of these sub systems" (Cushing, 1989, p.10). It follows that if we consider a human being as an individual, distinct from the rest of the humanity, we must find philosophical ways to integrate each individuality into the statistical consequences of the biomedical model. We must note that a person can only be considered as an organism independent from the rest of humanity if he or she is not envisaged as a organic-social-cultural complex, *i.e.*, only as an organic entity, the one that biomedicine deal with in its controlled trials. Abstracting all but a few physiological functions in a study transforms a person into a parametrical entity. When physicians exchanged the patient and the illness, that is, the individual person in a social and cultural context, for science's disease, or statistical result (Savitt, 1995), the traditional characteristics of the doctor-patient relationship and the healer social role changed, without a corresponding adaptation of the sick-role, which was still attached to an outdated model of a caring healer.

Medicine would be better understood as a hermeneutic enterprise rather than as science, since the physician in fact interprets the ill person. If the patient is to be interpreted as a dynamic "text" (Baron, 1990), written in a metaphorical language, four such texts exist: (1) the experimental, or how the patient lives the experience, (2) the narrative, obtained during the medical history-taking, (3) the physical, which comprises the objective findings and (4) the instrumental, construed with the use of diagnostic procedures (Leder, 1990). The patient brings the first two into the consultation, during which the narrative text attempts to describe the experimental; the other two are interpretations of the patient.

Physicians feel cornered by their relationship with biomedicine-science. Inappropriate therapies are rooted in a lack of knowledge about the pathophysiology of a disease as well as a lack of awareness about the limitations of the knowledge. In this sense, clinical experience is supposed to be uncertain and uncontrolled while clinical trials in university hospital setting are believed to be trustworthy (Cuzzani and Lie, 1991). What remains for the physician is the choice to follow the lead of tertiary care or to risk malpractice. His or her personal experience or opinions do not count in courtrooms, even if physicians record and act based on what they hear, not what the patients say or mean. What is interpreted within biomedicine as the patient's view, opinions, wishes, values and beliefs, are nothing more than an artifact of the professional perception (Armstrong, 1984).

There appears to be a disproportion between announced discoveries and the obtained results. It is difficult to translate a value of 80% success in the treatment of a certain disease to one of the 20% of the failures. However, there is nothing more relative than accuracy. A 1% error in biomedical science is a near-perfect hit. The same error in warfare means aiming at New York and blasting Montreal. For biomedicine-science 80% is an intelligible value, yet for the patient, there is no 80% of a person. Biomedical speech is incomprehensible for lay-people, not because of its technicality, but because its scale of values is different. Probably the greatest achievement biomedicine offered to humanity was, and still is, a better understanding of physiologic phenomena. Medicine does not provide the restoration of well-being. The biomedical aim is corporeal, biological. and influenced by personal, social, economic, and politic agendas. This is not what one would expect from a care system. Care can only be measured individually, in a one to one relationship.

To suggest that biomedicine-clinical practice is not scientific is the same as asserting its uncertainty, while removing its predictive power. Of course, this predictive power is what strengthened the links of biomedicine with the economic and politic power. It is this predictive power that substantiates an important part of the standard of care definitions.

Nevertheless, science and the definitions that science offers are accepted only when they do not conflict with higher personal values. A good example of the conflict regarding a so-called scientific truth is the dispute between creationists and evolutionists that is still in progress.

Section II – I BELIEVE, YOU BELIEVE . . . THEY BELIEVE

"Beliefs are the lenses through which we view the world" (Wright, Watson and Bell, 1996, p.19). Beliefs provide the foundation for all our experiences and interactions with the real world, so that we build a subjective truth, or individual view, of reality. Truth and reality are not the same thing. Scientific and ideological knowledge may coexist as forms of beliefs since scientific practices produce ideological knowledge (Young, 1981, p.385).

Humans tend to build personal explanations about the world that surrounds them. Some of these explanations are acquired through observation, study, religion, or teaching, while others are the result of rational thinking. Some of these explanations are universal truths, while others represent personal or cultural myths. The set of these explanations about the universe we live in is the set of our beliefs. This set of beliefs is construed during our lives. It is influenced by our society, culture, religion and heritage; it will determine the way we interpret the social roles and how we define our truths (Wright, Watson and Bell, 1996). Truth is a human construct and, as such, it can only be applied to nature in order to qualify the context of human explanations of natural phenomena. As a rational construct, there are as many differently construed truths as there are rational human beings. By being subjacent to all the exchanges that characterize relationships, our beliefs interfere and influence their outcomes.

Science offers a specific understanding about the universe, this understanding is qualitatively different from the one offered by philosophy and religion and so on. This scientific explanation answers a certain type of scientific question. What is important here is that, as an epistemic operation, the scientific explanation precludes the existing knowledge that will be modified by the new knowledge, which implies a historical view of the explanation (Tuchanska, 1992). This historical basis interferes in the result since it is underlying everything that is going to rebuild from that moment on. As Mackenzie (1999) indicates, knowledge is not unanimous. Different backgrounds, methodologies or uses, allow for different levels of acceptance of a specific knowledge, which means that there is latitude in the acceptance of explanations or construed truths. The explanation is accepted for personal reasons or choice, and constitutes a belief, albeit based on science.

A belief becomes truth for the person who believes. Science has a tendency to function as a set of beliefs between the practitioners and users, who exhibit a defensive behavior that validates it despite challenges and anomalous results (Tambiah, 1989). Science was not always linked to technology and applied science. The use of so-called scientific processes in our daily routines is only recent. A frame of reference is the point of departure of any modern scientific endeavor. The comparison of experimentally obtained data against a stationary standard is an emblematic component of what we call the scientific method (Hiley, Bohman and Shusterman, 1991). By building into the biomedical scientific method a provision where the patients' truths could be accepted in the reference frame, and therefore multiplying the uncontrollable variables to an immense value, an immense number of different truths arises. When one affirms that there is no such thing as only one truth, the unavoidable naive conclusion is that there is no such thing as a stationary standard, a reference frame or valid science. However, the wide array of possible truths and interpretations of these possible truths should not be seen as a deconstruction of the classical aim of science: one single, and simple, explanation of all natural phenomena. In reality, this multiplicity of realities should be seen as the only true reality of nature. Interpreting Peirce (1955, 1957, and 1998), if we shape our reality according to different Weltanschauungs, we end up with different truths. In other words, we have valid science without one single truth (Dauer, 1989; Dickson, 1988; Hayek, 1979; Margolis, 1993; Piaget, 1967; Pickett, Kolasa and Jones, 1994).

The fact is that the paradigm tends to function as a set of beliefs for the practitioners, according to Tambiah (1989) and, as such, are strongly defended by the professional community. Scientists firmly believe their theories and methodology. These held theories provide a basis for resistance to any change (Barber, 1961). It seems that science builds the belief that will be adopted by practitioners. Scientists in general "do not like to read what outsiders have to say about science" (Abir-Am, 1982, p.281); they resist, like everybody else, to anything that may resemble a threat to their beliefs. Indeed, it is difficult to ultimately differentiate between beliefs and knowledge (Murphy, 1997, p.159). In this sense, beliefs are the bridge between ontology and epistemology.

We develop "habits of mind" parallel to beliefs that Margolis qualify as "entrenched responses that occur without conscious attention, and that even if noticed are hard to change" (1993, p.7). The habits of mind derived from personal experience are harder to be noticed as such than those that have been learned. Habits of mind can be described simplistically as a pattern-recognition tool, just like that used by the practitioner in the biomedicine's decision-making process.

The word "model" is, in general, expected to be linked to scientific methodology; however, when used to describe illness, belief systems also constitute models (Engel, 1977). There are two major currents of thought regarding the interpretation of disease. The first, identified with "soft" medical systems, is the personalistic etiology, which correlates all misfortunes. According to this view, medicine, religion, and magic are inseparable. Healers have supernatural powers and their primary role is diagnostic. The other view, identified with biomedicine, is naturalistic, where illness is not correlated to other misfortunes; the healer is concerned with therapeutic procedures, and has no supernatural powers (Foster, 1976). Members of biomedicine consider unorthodox, complementary, unconventional, or alternative therapies to be cults since they are dogmatic or based on beliefs that exclude scientific experience and evidence (Shapiro and Shapiro, 1997). This is how biomedicine currently deals with other healing practices.

The naturalistic view invokes the scientific method and thus requires a suitable standard for measuring both biomedical hypotheses and results. The basic biomedical standard of measurement is the so-called “normal value,” which was described above. Personalistic views cannot be interpreted this way. For the physician, normalcy is the leitmotif of his or her scientific belief (Canguilhem, 1982); for the patient, the absence of symptoms is the main expectation (Ballint, 1984). For the insiders, the results obtained through studies that obey the scientific method are the only truths, while for the outsiders, any procedure that can potentially alleviate the suffering is truth. For the physician, if he or she is intent on abiding by the biomedical culture, the patient is still a statistical event, even when factoring in the individual character of the clinical practice. The patient imagines that he or she is the only one. These two different classes are thus present in the clinical encounter

The doctor-patient relationship is in no way different from any other relationship. The anxiety, tension, and expectations that are present in a consultation are but a reflection of the anxieties, tensions, and expectations experienced in all other social settings. Different interpretations of what constitute truth and the possible number of truths only make it more troublesome.

The background of each participant is taken for granted in a doctor-patient relationship. As discussed above, the physician is an insider, with his or her scientific culture, but the patient is an outsider, with his or her laic vision of the health care system. There is a strong contrast between what is perceived by the outsider from the system, its user, and that perceived by the insider, the healer (Last, 1981). To the outsider, apparent different medical ideas are to the insider a homogeneous means for dealing with illness. However, as with any other episodes in human life, sickness episodes are linked to a specific set of beliefs. These beliefs will determine the pattern of action the people will follow while fulfilling their roles (Young, 1995). Cultural beliefs also influence how people manage illness and deal with their physicians, and how physicians manage their patients.

The concept of health is basic in the biomedical construct. Some defend a position that health is value-laden, deriving the idea from: (1) the assumption that health/disease judgments are practical judgments with a treatment as an aim, or (2) that health has a positive meaning, contrasted with the negative connotations of disease. For Boorse (1977), health is value-free since the definition of normal biological function is statistical. Laden or free, the concept of health is taken as truth in biomedical field, which, in turn, becomes a belief. Once health is held as a belief, it will always be value-laden and will color the clinical practice. What is referred to as clinical experience is, according to Clarke, nothing but the belief that biomedicine-clinical practice is based on an art of "determining, from complex and subtle interpersonal cues and in interaction with the patient, the nature of the disease and the appropriate treatment" (1990, p.211).

Patients and physicians exhibit different cultures, roles, paradigms, aims, and expectations in the same consultation space. In this chaotic scenario, philosophers proposed bioethics as the tool to balance cultures, roles and paradigms, or at least aims and expectations, by promoting a dialogue and an understanding of different values. Good communication is key to respect for autonomy (Gillon, 1986). Facing so many inconsistencies, crisis, internal contradictions, conflicts, flaws, and unable to open channels of negotiation, biomedicine had to develop some kind of patch. The social movement that criticized and exposed these flaws was bioethics. Thus, why not alter bioethics to give a new and more respectful face to the same old model?

Section III - BIOETHICS AS A CUSHION

. First, one has to keep in mind that ethics cannot exist without some sort of relationship between people or entities in which values are exchanged (Flew, 1984, p. 112-114), although relationships can exist without ethics. Ethical behavior or concern is thus conceptually dependent on value-infused relationships. One can say that what the patient is expressing in the sick-role is the result of a set of values. Also, biomedicine-clinical practice is the expression of a set of values that derives from biomedicine-science. As we saw, they are not the same, and are sometimes even opposite. Ethics is the instrument that deals with different and opposing values when they are present in the same context.

According to Cassell (1991), there are three common errors when the goals of medicine are evaluated in relation to society: (1) "The error of vacuity," which means that the aim of medicine is the restoration of the well-being, and to restore autonomy is to ask more of the discipline and its agents than it or they can provide; (2) "the error of social relativism," which means that the main aim of medicine is social, and neglects the organic basis of disease and the corporeal identity of persons: and (3) "the error of neutrality," which means that neutrality cannot be applied to biomedicine-science. Biomedicine does not exist in a vacuum. It is strongly influenced by society's construction of its own agenda. Both biomedicine science and clinical practice are exercised by people that have the right to live according to their own beliefs, whether or not these beliefs are neutral.

Medical utilitarianism is clearly defined for biomedicine-clinical practice by Gillon (1986) when he admits that the societal moral duties of the physician are hierarchically superior than those owed to a single patient. A counterpoint is presented by Singer (1993), who proposes a relativistic utilitarianism, decided case-by-case, where the normal standard is only marginal to the decision-making process. However, if someone expects to be diagnosed and treated in the same consultation, a normalized standard and a relativistic approach cannot be present at the same time. To be present simultaneously, they must be negotiated, which is something that demands time, an element that is lacking in today's consultations.

It is unacceptable to use morality and moral value as the standard of measuring the goals of a science (Thomasma, 1984); nevertheless, they are the only useful tools for understanding these goals and relating them to the social use of scientific knowledge. It is in this sense that to cushion the opposing character that was present in health care, bioethics evolved originally as a tool for the understanding of the values and interests involved in the health care system and biomedicine in general. Bioethics quickly evolved to an applied field with the re--empowerment of the patient as its goal. Historically, bioethics never tried to be neutral; instead, biomedicine was viewed as having an imposing character, exercising an unnecessary power upon a defenseless patient (Katz, 1984). Bioethics was one form of patient advocacy.

As a formalist theory, bioethics is supposed to be politically and culturally neutral, so as it can be useful in any context. The consequence of the ideology of neutrality makes ethics vulnerable to being co-opted. Indeed, this is what occurred when the biomedical health care system gave itself a new face. Carson indicates that the limits of bioethics "are those of procedural or administrative approach" (p.52). Carson's opinion is not the last word on this issue and do not represent the major trend, but it best explains certain issues of bioethics that relate to biomedicine, mainly the frequent view of bioethics as a medical speciality, not only by outsiders but by physicians as well.

For Pellegrino and Thomasma (1981), a philosophy of medicine is urgently needed. According to the authors, this philosophy of medicine must arise from the practice of medicine. Bioethics had a view about the nature of medicine, and this view is that medicine is a practical art and a healing relationship (Thomasma and Pellegrino, 1981). Basing bioethics in the healing relationship is the same as basing it in the biomedical methodology. As described above, the biomedical relationship designs the doctor-patient relationship with the outcome in mind. The goal of the encounter is to obtain the required information for the decision-making process.

Unlike other forms of patients' support movements such as focal interests groups, bioethics found its place inside biomedicine mainly because it inherited a framework based on the old medical deontological codes, or perhaps because some of its first practitioners were physicians. In the 1960's, applied ethics discovered medicine and started to use the applied action guide as a reasoning tool, which consisted of choosing the relevant principles of each case, enumerating them according to a flowchart, and, where there was conflict, reconciling them to an ethically satisfactory solution. According to Carson, this model, which was very similar to the decision-making process used in biomedicine, perpetuates a view of a social contract for the moral experience of illness (1990, p.52) that connects biomedicine and bioethics through a common process of reasoning.[27] According to Agich (1981), Thomasma and Pellegrino focus on the healing relationship as the way to give medical ethics a philosophical foundation. For Thomasma and Pellegrino (1981), medical ethics is an intrinsic part of the medical art.

When applied to bioethics, relativism does not appear to solve anything. It narrows foundational problems into a single scrutinized case. The inverse occurs when we apply utilitarianism. We gain the dimension of the whole, without the details of the particular. Consensus, according to Casarett, Daskal and Lantos (1998), is the tool of bioethics. It is at the core of a moral theory for pluralistic

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[27] A blatant example is the popular book "Clinical Ethics" by Jonsen, Siegler and Winslade, first published in 1982 and already in its fourth edition. This manual reduces bioethics to a protocol-like flowchart, as if ethical issues could be treated in a similar fashion as a clinical condition.

democratic societies. If the health care system needs someone to negotiate consensuses, it is because both patient and members of the system cannot reach it by themselves. However, consensus is a very generic term; no one can know for sure if the parties involved in fact want consensus. Furthermore, biomedicine is neither pluralistic or democratic. The consensus in biomedicine is a table of normal physiological values.

In certain circumstances, we can talk about a “moral expertise” represented by the bioethicist (Szabados, 1987). Nevertheless, such a title is not enough; the exercise of an expertise, especially in the case of bioethics, should indicate a redesigning of the field. Medical ethics should not be based on the organicism of biomedicine. Its basis should be the patient (Wear. 1981), but by deriving methods, aims, and respectability from biomedicine, bioethics also suffers from the same flaws, internal contradictions, and destiny of biomedicine. According to Hellström (1993), Habermas describes three main human activities: (1) praxis, (2) work, and (3) self reflection. Transposing these to the context of this paper, praxis would be biomedicine-science, work would be biomedicine-clinical practice, and self-reflection would be bioethics. Indeed, bioethics should be the instrument that would evaluate the values, beliefs, methods, results, and behavior of biomedicine. To do so, it should develop similar elements independent of biomedicine in order to avoid the same bias. The discussion about autonomy and power of both patient and doctor exemplifies the current unstable position held by bioethicists.

Medical care in North America has moved away from a paternalistic approach to patients toward an emphasis on patients’ autonomy. Autonomy may eliminate paternalism if that is the desire of the patient, since a self-determined patient can opt for it. Moreover, autonomy must be culturally sensitive in a multicultural society such as Canada. An individual is never alone.

Bioethicists appear to be divided over the degree of respect for autonomy one should exert. For example, Macklin (1998) limits the respect or tolerance toward beliefs and practices if what she calls "excessive" tolerance can produce harm to these patients. Later in the same paper, she divides the beliefs between those that are culturally relative and those that rest on universal ethical principles. Thus the health professional could choose to respect the universal principles while forgetting the cultural ones. This is what happens in biomedicine-clinical practice. On the same issue, Baker (1998) states that an international bioethics should be a negotiated moral order with a careful appraisal of the areas of nonnegotiability. I will reserve for the next paragraph the concepts of "negotiated moral order" and "careful appraisal of the areas of nonnegotiability." Quill and Brody (1996) propose an "enhanced autonomy" model, which encourages patients and physicians to actively exchange ideas, explicitly negotiate differences and share power to better serve the so-called patient's "best interests." This proposition is nothing more than the realization that the actual model is not working or creates more problems than it solves. Nevertheless, it is not through generalities like "exchange ideas" or "negotiate differences" that one will solve deep cultural and ideological differences between practitioners and patients, or solve paradigmatic inconsistencies. To eliminate barriers, the parties involved must first be ready to change, because if these barriers could be easily and painlessly removed, it would have already occurred.

In the last paragraph, the revision of the literature presented us with: “negotiated moral order” and “careful appraisal of the areas of nonnegotiability” together with other generic concepts. The major problem with these propositions is that it is not possible to use them in the biomedical model as it is designed today. Biomedicine cannot negotiate its basic assumptions, and technology strips its moral aspects. This discourse is, no matter its merits or flaws, simply a discourse.[28]

Other models of autonomy can be cited. One is the "independent choice" model of decision making, in which physicians objectively present patients with options and odds but withhold their own experience and recommendations to avoid overly influencing patients. This model confuses the concepts of independence and autonomy and assumes that the physician's exercise of power and influence inevitably diminishes the patient's ability to choose freely. It sacrifices competence for control, and it discourages active persuasion when differences of opinion exist between physician and patient (Quill and Brody, 1996). They propose an "enhanced autonomy" model, which encourages patients and physicians to actively exchange ideas, explicitly negotiate differences, and share power and influence to serve the

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[28] Frohock (1992, p.276) states that: “in recent liberal traditions, the secular self is considered autonomous because it is separate from the influences of others and institutions. A distinct and even atomistic self is the bearer of autonomy. But in spiritual traditions the self is typically joined to other realities and entities. Autonomy is illusory if depicted as a distinct and independent power. An individual surrenders to, or is merged in, some more comprehensive reality as a condition for successful direction. The self forms part of a directive line extending to powers outside the self. One gains mastery over one’s life in spiritual perspectives only as a consequence of abandoning liberal notions of autonomy.” In societies like the North American that defend autonomy at its extreme, this statement is disturbing, while for the health care system, as designed by biomedicine, it is an ideal to be reached.

patient's best interests. Recommendations are offered that promote an intense collaboration between patient and physician so that patients can autonomously make choices that are informed by both the medical facts and the physician's experience.

Bioethics is not or should not be simply regarded as an evaluation of the values involved or the positions assumed by each party, regardless of the name of the model or the process of reasoning. Bioethics should assume a position in the dispute because the practice of neutrality will leave a void behind that will be filled by the system. Every time the bioethicist is undecided, he or she in fact decided in favor of the system. An example of this and how the research community sees bioethics can be inferred from the evolution of the Tri-Council Policy Statement on human research (Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada). The first draft (1994) has a philosophical approach. The second (1996) is more a legal and deontological document. The third and approved draft (1998) is a practical guide of what to do in each described circumstance.

Bioethics deals with arbitrations and conflicts that require negotiation. In general, these are system problems because the system is impersonal. The function of bioethics appears to be the evaluation of the moral component of a problem without moving the system. Bioethics is an ally of the system. The whole system is built on the expectation that the patient will always agree or accept the determinations of biomedicine, submitting him or herself to the doctor's opinion. If they do not, the question about their competence is raised. This competence is rarely questioned when the patient agrees with the treatment, so when patients consent, a bioethicist is not called. A bioethicist is, however, frequently called when there is no consent. The health care system is geared toward automatic consent, which nonetheless gives the impression that patients are taking part in the decision-making. Bioethics comforts the system by giving the impression that the system is being monitored, as a homoeostatic valve, or a feedback device. However bioethics is not a monitoring or feedback device, and can never be given the actual circumstances, because it is not a recognized biomedical specialty. Without this status, bioethics, just another paramedical servant field, is weak to face biomedicine.

The main stage for bioethics is the same as the one for biomedicine: the doctor-patient relationship. Yet this arena is not all that bioethics inherited from biomedicine. Without a personality of its own, bioethics retains the role of mediator between the system and the user, digesting values and returning compromises that usually validate the system. At any rate, bioethics shared with, and derived from biomedicine's culture, and in time became a tamed voice inside the system. Bioethics is now just another reliable servant of biomedicine. However, the bioethicist is still an unofficial member of the system. The bioethicist must therefore struggle to maintain a professional position in a system that is yet insensible to his or her necessity. Up to what point should this fragile professional compromise his or her position by facing the system? If it is difficult to establish the role of a bioethicist in a health care team, it is also difficult to establish what should be his or her qualification to become a bioethicist and to gain the status of member of the team (Yoder, 1998). This is particularly true since the moral authority or expertise of the bioethicist is frequently confounded with the role of the bioethicist (Casarett, Daskal and Lantos, 1998).

Bioethics and the doctor-patient relationship mutually influence each other. Medical ethics dealt with etiquette. Bioethics tries to provide an easy solution to a system that contains numerous flaws. The role of bioethics, by dealing with individual cases, delays the imbalance of power by not facing it as a construct (or the context where a dehumanized context is normal). If we do not face the system, we will remain forever in the symptom. Bioethics seems to be reinforcing the system by dealing only with small parts or separated parts of biomedicine, and not criticizing it overall.

Bioethics is never fully defined; it was created by a perceived, but superficial need. It was not designed to address systemic problems; it also rejects anthropological and sociological approaches. Bioethics is case oriented. As a tool, it is efficient. It is not looking for systemic problems and roles. Only the surface is seen. Policies in this kind of approach are a mere aggregate of individual cases. Bioethics protects the system from the law. Policies are blessed by bioethicists for the sake and relief of the practitioners. The bioethicist works for the system (and should be a patient advocate). Bioethicists, patient advocates and ombudspersons are offices created by the system. The system absorbed bioethics, but became immune to it by developing resistance. Bioethics is only a cushion; it is more comforting than challenging.

TRANSITION

Up to this point, I tried to demonstrate that the struggle for power, or its effective control, is acute in biomedicine while bland or non-existent in many other professions. Biomedicine is the only profession besides the priesthood that deals with the hopes of overcoming death, or at least, prolonging life. Furthermore, the validation of symptoms also confirms the role of both physicians and patients.

Professionalization bestowed medicine with a monopoly over the process of defining, validating, and regaining health. Health, on the other hand, is differently defined by each individual and by the system. If biomedicine could offer a universally accepted certainty, or better yet, be based on universally accepted values, as scholarly medicine once was, maybe then the internal conflicts that arise from its practice would be less acute, and one single definition would be universally accepted. However, biomedical culture, although empowered by the society at large to care, and to define care in its own terms, is nonetheless confronted by all other cultures that compose society and want definitions of care in other terms. One cannot say that biomedicine is wrong in defining its terms since this is part of its mandate, yet at the same time no one can say that society is wrong for not accepting the values of biomedicine. Somehow, a compromise must be reached to make the relationship between society and biomedicine operational.

Designed and defined by insiders, biomedical professionals, the aim of biomedicine is external to itself, since it involves the patient. Using parametrical results obtained from previous encounters with patients as tools, biomedicine is used by these professionals for three aims: (1) their way of earn a living, (2) the acquisition of more experience and knowledge, and (3) the application of knowledge and experience to alleviate disease. These three aims are, however, self-serving: the more knowledge and experience, the more patients due to fame, the more economic gain, the more experience. Efficiency is a by-product of this cycle. In the case of biomedicine, it can be measured by the same parametrical instruments used to define the best treatment and the best outcome. This by-product is highly praised by the health care system because it is measurable and can be easily converted into entries in the accounting books, which would thus perpetuate the biomedical monopoly of health services.

The doctor-patient relationship appears as the cradle of misunderstandings. These are rooted in what is perceived as an impersonal care. The resulting conflicts range from small frictions to important legal issues. People have unreal expectations about biomedicine. These unreal expectations are defeating biomedicine.

Chapter Four:

ONE AMONG MANY FUTURES

When biomedicine is contrasted with other medical systems, its commitment to a standard of care reduces the patient to one more person that will receive an impersonal and standard prescription, designed in some university center for people with different life experiences, different cultural and social backgrounds, and even different anatomical and physiological designs (Froom and Froom, 1992). The patient wants individual care, but individual treatment is not an entry in the biomedical pharmacopoeia. If there is no individuality in the process of diagnosis and in the design of the treatment, how can we reconcile notions such as autonomy--a concept related to one self-- and biomedicine --a statistical science? Furthermore, most large clinical trials are financially supported by the pharmaceutical industry (Hampton and Julian, 1987), and since they are considered by the industry as an investment, there is an expectation of economic return. Both the emphasis upon and the subject of the research are dictated outside academia. The commercialization of health care has progressed since 1980 and the market-oriented health system influences practicing physicians (Relman1991). According to Dougherty (1990, p. 275), "increased competition subverts physician collegiality, draws hospitals into for-profit ownership and behavior, and leads clinical investigators into secrecy and possibly into bias and abuse. Medicine faces a de-professionalization evidenced in loss of control over the clinical setting and over self-regulation. Health care becomes a commodity relying on cultivation of desires instead of satisfaction of needs, even as many basic needs go unmet. Patients become consumers empowered with lawsuits and the connection of medicine to the relief of suffering is attenuated. Medical encounters are increasingly impersonal, dominated by specialization, technology, and bureaucracy. Patients are losing their physician-advocates to new conflicts of interests, physicians are losing their impulse to charity, and trust in the doctor-patient relationship and in medicine generally is eroding."

Mechanic (1985) blames growing consumerism and skepticism about authority to have caused patients to seek an active role in their health care, even if most still defer to their physicians' judgment. It is his opinion that threats to physician autonomy have their roots in the increasing competition from other doctors, new forms of practice organizations, and the rise in malpractice litigation. Technology simply added a new threat to old values and attitudes. Due to this ever-evolving society, both physicians and patients need to change and adapt. It may seem obvious, but I have to stress here that physicians are members of the society; in relation to change, they suffer the same pressures as any other people.

Are the goals of biomedicine-science and health the same? Does the knowledge generated by biomedicine-science mean health results as defined by the patient? The multiple personality of health brings certain unavoidable conflicts. Biomedicine scientists are confronted with society and the clinicians; the health care system is confronted with the providers and users; the institutions are confronted with health care professionals and patients; the practitioners are confronted with patients. What makes these confrontations more difficult is that insiders are also outsiders in one or another circumstance. In this scenario, it does not matter at all what the goals of biomedicine are, if any.[29] The meaning of health-related terms varies from culture to culture without a possible translation on sight. Some of the health-related terms, such as "well being," are individually defined, but this shrinks the notion of culture, for health care purposes, to one single individual.

When someone contemplates oneself, the individual becomes simultaneously the observer and observed, subject and object. This reflexivity is the essential feature of the self (Mann, 1991), it allows us to learn and add knowledge, interpret and add interpretations to our Weltanschauung. This is one of the many dyads present in a human being. However, two positions can be used to summarize all dyads. On the one hand, we have a real position, while on the other, an unreal. It must be stressed that these positions are real or unreal in relation to each other and not in relation to a hypothetical universal truth. Since both contend to be real, a conflict of values is present, and bioethics should be the adequate forum for its discussion. However, one does not see a discussion, only an adaptation of beliefs, values, and truths.

In this chapter I will overview and criticize the current biomedical model. Bioethics, by making use of the same model, shares with biomedicine its strengths and its weaknesses, and will be criticized on the same grounds.

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[29] Thomasma (1984, p.43) states: "the goals of medicine are virtually nonexistent. Medicine suffers from an abundance of means and a poverty of ends."

Section I - MODELS

According to Rorty's metaphor, human minds are webs of beliefs and desires, webs that re-weave themselves to accommodate new attitudes (1991, p.59). This set of beliefs is dynamic, and is part of what is called the self. However, the self is also a Western construct. It is the way we Westerners understand and describe reflexivity (Taylor, 1991). We reflect on and about the world that surrounds us, reconstructing it as an image in our minds. This construed notion of the world, initially a belief, is transformed in ideology when we act in the world. Scientific medicine can and is used by those within it as an ideological vehicle (Stein and Apprey, 1985). Stevenson and Williams state, "Ideology involves the distorted or biased and rationalized rather than objectively reasoned evaluation of issues. It serves to justify and defend relations of domination" (1988 p.93). In the case of biomedicine, the domination is about the profession – medicine – and its objective – health, linked together by biomedical culture, methodology, and technology. All them are based on a model.

Inside the ranks of biomedicine, a number of voices realized that the biological model was, to say the least, inconsistent. For example, Lynn and DeGrazia wrote that the so called "fix-it" model, where facing an abnormality the physician intervenes to bring the organism back to normality, must be contrasted with the "outcomes model," in which future possibilities are judged in terms of the patients' values, in order to achieve the best future possible as ranked by patients preferences (1991). But is this the current biomedicine? Kleinman (1988) proposes a "meaning centered model" specially for the care of the chronically ill patient, where cultural meanings and values are brought forward in the decision-making process. White (1988) agrees that medicine should make an effort to go beyond the biological in its conceptual framework. These models proposed are biopsychosocial, with the "social" and "psycho" parts also Westernized, Christianized and biomedicalized. So there is not a proposal of a new model de facto, just a redecoration of the old.

The present biomedical model is no longer adequate for describing scientific and social responsibilities. For Engel (1977), this crisis stems first from the definition of disease in purely somatic terms, leaving social and psychological issues outside of physicians' scope. This is rooted in the biological molecular description of diseases. What is worse, according to Engel, is that there is an attempt to medicalize all non-biological-molecular causes of disease. The idealistic definition of health sponsored by the World Health Organization becomes little more, in biomedicine, than a figure of speech, one more metaphor among many. According to Engel (1987) the present biomedical model fails because: (1) it represents a limiting case and therefore cannot be used as a criterion for science in medicine, (2) any attempt to apply the biomedical model outside its limits is unscientific, and (3) medical science requires a paradigm encompassing the human domain. I have to point here that methodology of science can only be applied to the scientific realm: "Health defined as the psycho physiological capacity to act or respond appropriately in a wide variety of situations, is enhanced by many means other than preventing and treating disease and injury. Therefore no choice of a particular medical intervention is likely to maximize health for all people with (or at the risk for) a given disease" (Whitbeck, p.35, 1981)

Worsley states that the "biomechanistic model within which the professional formation and deformation of the doctor take place in our culture, one such metamedical framework, is by no means universal" (1982, p.315). This means that biomedicine is a cultural project. Worsley explains that all medicine has a metamedical context, which means that concepts of illness and its relief are always embedded in a wider cultural framework (p.327). The biomedical model, which is the foundation of the contemporary Western scientific medicine, is based on the biologic theory.[30] It is this theory that dictates the physician's approach to the diagnosis and treatment of disease. Gillick (1985) points out that lay people in general think about illness and its causes and cures in differently than doctors do. He further points out that these popular models are so different from the biomedical model that they should not be confused with science. These differences between the models may account, according to Gillick, for the widely reported dissatisfaction of patients with modern medicine.

There is an abundance of models that attempt to explain and propose new avenues to the doctor-patient relationship. However, all I had the opportunity to examine are simple re-adaptations of the same bankrupted biomedical one.

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[30]. Biomedicine is a naturalistic and internalizing medical system, which means that diseases have natural explainable causes acting in the interior of the body. In this model, disease is a patho-physiological phenomenon: normal bodily functions, as defined by biochemistry and physiology, are altered by a pathogenic factor, which results in an abnormal function, translated clinically into symptoms (Hopps, 1966; Siegenthaler, 1977; Valenti, Mazzei and Masnatta, 1970). By reading the symptoms and verifying what functions are altered, it is theoretically possible to know what the pathogenic factor is and subsequently remove, neutralize, or even kill it (Wilson, 1994). The effect of this action is called the cure; the more efficacious and efficient the cure, the more quickly and integrally the original functions are restored.

Another problem with the current model is medicalization.[31] There is a strong tendency today to medicalize social issues (Boorse, 1975). Psychological aspects of health are being substituted by neuroscience, and social aspects by genetics, rendering the old World Health Organization's definition of health to a simple physiological model. When the World Health Organization defined health in a bio-psycho-social model, it did so to reinstate society with part of the control of the definition, construction and use of health related aspects. What happened was a medicalization of all three aspects of the original definition. Medicalization of daily life gives rise to unrealistic expectations about the power and capabilities of biomedicine. The first consequence is that patients seem to accept less of the limits of biomedicine when facing an untreatable disease (Barsky, 1988). Biomedicine runs the risk of being seen as the substitute to religion in technological societies, which leads to over-medicalization in these societies. (Thomasma, 1984)

Today's biomedical practice is the so-called evidence-based medicine. It is fashionable because it is thought to be more efficient and cost-effective. In this practice, objective findings are the one that counts; there is no room for subjective reasoning. It is the medicalization of the biomedicine field.

The most medicalized of all processes is indeed the clinical encounter. This process starts with a doubt, the health condition of the patient. This doubt suffers a transformation into information that will later be transformed by biomedical knowledge into a recognizable biomedical truth.

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[31]. Medicalization is "the process whereby domains of life that were not previously so, come under the aegis of medical practitioners and/or medical theories" (Jordanova, 1995, p.367).

It may appear, from the study of the current literature dealing with diseases and their treatment, that biomedicine is the sole truth, and that the physician is its sole interpreter. However, truth is treated here as an undisputed concept: there is only one scientific truth, and only those bestowed with the biomedical culture are able to understand it. Moreover, if they are able to understand, they are, by extension, able to judge what is and what is not truth.

In its historical journey, Western civilization had a strong religious facet that very recently appears to be fading. With the rise of science and technology, one can observe the substitution of the crucifix in many institutions by the caduceus. Indeed, the judiciary system and the educational system, to cite just two institutions, medicalized many aspects of their domains. The predictive power of biomedicine can be seen as the main reason for this phenomenon. However, if the statistical treatment of the population appears to bring a reasonable policy tool, this same treatment when translated into individual care does not appear to function that well. Physicians are seen as inhumane when dealing with suffering, and physicians regard their patients as uncooperative when faced the exigencies of science.

The members of the biomedical field are in an alien world of ideas and beliefs when compared with their patients. In a consultation, two different cultures live in the same room without managing to reach a consensus. The patient metaphorical world is begging for transference, something that the physician is unprepared to concede, there is no mind in the body that the physician will treat.

The patients' illness is translated into the biomedical disease, and the therapeutical procedure does not necessarily reach patients expectation. It will not also satisfy the physician, used to crude descriptions of physiological and pathological events, and not trained to discuss different outcomes than the one designed in the manuals.

Bioethics attempted to reveal a new dimension to biomedicine, the one of shared responsibility. However, neither patient nor physicians in general want to share. Without other resource, bioethicists today deal with foundational issues in a one-to-one basis, using the same methodology and culture of the physicians they were supposed to monitor. When bioethics was transformed in a paramedical function, it lost its right to speak in the name of patients and society.

The globalization of Western society is taking biomedicine to social groups that are absolutely unprepared to receive it. Biomedicine is identifying health issues in cultures that did not until then realize that they were sick. Now these societies are waiting for a Western treatment that they cannot understand and afford. Even Westerners cannot afford biomedical treatments.

The current ideology of health care promised Americans, according to Tristam Engelhardt (1998): (1) the best care, (2) equal care to all, (3) choice of physician and (4) no increasing costs. Everybody involved in this project, from government officials to users, to the professionals knows that this is impossible. If it is impossible in the United States, what can be said about Canada? First, we must remember that the physician is at the same time a consumer and a manager of the Canadian health care system. The health care system has as its main function the provision of the resources for any and all interventions eventually necessary to maintain the normalcy, or health, of the population, as defined by biomedicine-science. To ensure physical fitness and therefore economic productivity of the population, the system ensures its income through taxes. Costs of "big medicine" are rising and it appears that most attempts to control them are failing (Schwartz, 1988).[32] With the system accepting the standard of care as defined by the biomedical field, this same field is being identified by society as being solely responsible for its price tag, and reacting accordingly by insisting on identifiable results that are defined by the commoner.

A free-for-all health care system is absolutely impossible for Canadian society, and if this society already has many ethical quarrels with biomedicine due to its multi-cultural constitution, a modification of the system to private or semi-private will multiply the quarrels.

Section II - PARADIGMS AND TRENDS

The times in which we live do not have any comparison in history. Technology, communications, economy, social services, and political awareness guarantee today's citizens the customs and possibilities that were barely imagined until the recent past. A society that previously ranked its citizens, professions, and cultures, now has to face a global community where hierarchical divisions among people no longer have practical meaning. Knowledge is a very important reason for this. It alone processes all that is required for survival. If, at one time, one could be a plumber, a farmer and a veterinarian, while building a barn in the spare time,

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[32] Out of this discussion is a deeper treatment of the problem "cost of health care."

today these practices need technical knowledge, tools and procedures that have transformed these roles into professions. To summarize, survival in the modern world depends on specialization rather than holistic knowledge. As people learned more about their works and crafts, they gained another dimension of self-awareness, with an increased interest in their own rights and values, since society needed each of them on equal terms (Haire, 1962).[33] Paternalism is no longer seen as a sign of beneficence waived by the higher classes, but as an inadmissible exercise of power and oppression. Privacy and autonomy are now values.

As realists, scientists try to find out what really happens, but as empiricists, they pay more attention to the statistical associations between phenomena. In modern social medicine, which is mainly empiricist, there is little interest in ontological and metaphysical questions. However, modern medicine has ontological questions that will remain unanswered by the current paradigm. This anti-realism of the empiricists necessitates the redefinition of concepts like causality, law of nature and objectivity that tend to abstract reality (Cassell, 1991). Physicians today create a picture of reality that can be evaluated empirically, through laboratory and imaging tests. The patient they see is a metaphorical image of the real patient.

We read the world through our own signifiers, the easiest being the body; these signifiers are the tools for reading the body, and disease becomes a language or a metaphor. The self is a more complex construct: the body is a more organized hierarchical, verifiable, visible and touchable mirror or reality. The body may be

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[33] Another author important to the understanding the thoughts I am presenting here is Wiener (1984).

politicized and so, explored ideologically. The body can be used as a tool, and explored economically as such. The body can also be used as language, and as such may become a metaphor or art. The body is, in the context of this paper, paradoxically, the outsider whereas biomedicine, a construct, is the insider. To erect biomedicine, the outsider was used as a passive source of information. This passivity is also the etymological root of the word patient. The patient is the source of information and the object of the action of biomedicine. The representative patient, the image that physicians portray of one, is not a belligerent autonomous patient. The patient we can see in the articles and textbooks do not express their will or opinion; instead, they are passive objects for the physician's manipulation. The patient only voices him or herself to answer the doctor's questions.

The physician became powerful because the paradigm[34] was built that way, placing all the instruments to gather and process the relevant information only in the physician's hands. Biomedicine relegates even all the paramedical professions to a secondary role, so people in other paramedical professions simply carry out the instructions of the physician[35] (Freidson, 1988; Shah, 1994).

For Frohock (1992 p.27), "the dispute is over cause and effect, and closely follows different understandings of evidence and inference." In the past, psychoanalysis and homeopathy, just to cite two examples, were considered legitimate trends of medicine, both with a recognized scientific approach. Today

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[34]. There are many definitions of paradigm. Here, paradigm is considered to be a "universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners" (Kuhn, as cited in Stanbury , 1995, p.522).

[35]. Biomedicine was built by physicians for physicians. They are the ones that gained with its institutionalization. (Katz,1984)

they are considered placebos. Which elements of our scientific biomedicine will, in the future, be considered unscientific remains to be seen. Frohock also places the restoration of health maintenance of life as one of the acceptable aims of biomedicine (p.275). These are very reasonable ideals, however their goals are still described from within the realm of biomedicine. Biology builds constraints, sociology builds roles, and human beings cannot choose to live without one or another, nor can a person prioritize one over the other; a culture or society, conversely, is able to do so.

Contrary to the physician's belief, absence of normality is not abnormality (Canguilhem, 1982). Normality does not necessarily mean health, nor does abnormality mean disease. Furthermore, disease does not mean illness and biomedical health is not necessarily the absence of symptoms in the patient. By barring illness from the realm of clinical concerns, biomedicine directs itself to what Kleinman, Eisenberg, and Good (1978) call "veterinary practice of medicine." What biomedicine targets is not necessarily what the patient wants to be targeted. However, biomedicine presents us with certain results; these results are used to validate the professional power. In exchange for power, biomedicine offers scientific certainty. Predictive power is the enticing lure that attracts the government that needs of predictions for policy implementation and insurance companies to assess risk factors.

When a critic states that biomedicine is not a science, it may sound like it is being removed from its "scientific value" or predictive power. It is exactly this predictive power that provides its greatest economic significance, not only for government officials but also for the insurance industry. We must remember here that it is this predictive power that strengthened the links of biomedicine with the economic power. It is this predictive power that allows an important part of the "standard of care" definitions. Philosophers may agree that medicine is not a science. However, does the patient know it? Does the industry and the health care system knows it? Does the physician know it? At a distance, one may remain with the impression that knowledge about the issue is not the point. The institutions have no interest in questioning such foundational issues. For Khushf (1997), it is time for a reconfiguration of the relations between medicine, bioethics, and the philosophy of medicine in order to recover the lost caring dimension of biomedical practice. In the first place, I am not sure if biomedicine ever had a caring dimension; in the second, Khushf's reconfiguration, again leaves the patient outside.

Axerlroad (1984) states that there is a need to redefine the role of the physician as a health care provider, with the addition of the roles of scientists and of social workers. Selikoff (1984) adds that science is necessary in health care, but clearly not sufficient. In this scenario, bioethics should have a crucial role by providing the guidelines and interpreting the doctor-patient relationship, as well as integrating the multi-disciplinary health team. However, it can only fulfill its role if divorced from the biomedical model.

The existence of disease is implicit in bioethics (Murphy, 1981, p.284). This means that bioethics shares the same model with biomedicine. It is not illness that the patient experiences, but disease, the medicalized description of an organic dysfunction upon which a physician will intervene and hopefully eliminate. It is no wonder that foundational issues of bioethics are considered inseparable from the practice of medicine. Bioethics have a strong appeal to physicians, who want or need a direct answer to a specific practical problem. The more the answer matches the common medical practice or alleviates legal risks, the better.

If there is no recognizable individuality in the treatment, how can someone cope with the unfulfilled social roles? If biomedicine could be practiced without the intervention of one person – the doctor – upon another – the patient – than there would be no need for bioethics since there would be no frustrated expectations and no conflict of values. Also, there would not be any interaction and thus no care would be given. A science free of any human interference is the dream of all methodologies; however, science is a human endeavor and should always have the benefit of humanity in mind. The science itself does not have ethics. Ethical issues, as I have already stated, only arise from interactions, which means that they will appear in the applied science, and the moral value is only one of the many interests driving the use of the science.

Today's codes place physicians in a secondary role in the decision-making process (Keyserlingk, 1998). The role of advisor is still to be construed in the biomedical field that only recognizes the healer-role. At the same time, according to Spicker, Ratzan and Richard (1990), Pellegrino describes four losses in those who fall ill: (1) freedom of action, (2) freedom to make rational choices, (3) freedom from others power, and (4) the sense of integrity of the self. It is indeed very difficult to reconcile a healer who cannot exert paternalism with a patient who is surrendering autonomy.

On a personal level of the doctor-patient relationship, we condemn paternalism. However, we surrender to it socially and, in some circumstances, even stimulate it. Blatant examples are the mandatory use of seatbelts, a legislation that compels an otherwise free, autonomous and rational citizen to a specific behavior inside his or her property, based on studies derived from biomedical data and sponsored by insurance companies. Another example is the requirement of a physician's prescription in order to obtain drugs, a measure aimed at curtailing the misuse or harm of an otherwise free, autonomous and rational population. The fact that this obligation perpetuates biomedical monopoly is not even questioned. This hypocritical behavior toward paternalism is, to say the least, morally confusing.

One single person is a unit, however finite, indivisible, and self-sufficient; he or she is self-limited and thus dependent on external realities (Cherniak and Tauber, 1992). It is difficult for biomedicine-science to deal with the individual, but it is difficult for biomedicine-clinical practice to deal with statistical samples. This is more than an opposition; it is a major internal contradiction.

Biomedicine cannot solve the contradictions arising from the evolution of a society that is no longer satisfied with the services it receives. Dissatisfaction with the biomedical model arises not because the patient is misunderstood by the physician, but because the model is unfitted to both. Science, from the last century on, is held to provide a set of truths. These truths are believed by lay-people to transcend the boundaries of nation, religion, and politics (Bynum, 1990). They also bring alien values that are incongruous with society.

Biomedicine evolved from an art to a science. Based on the science, biomedicine built its culture. The scientific biomedical culture cannot cope with the individual needs that are expressed during a consultation. The doctor-patient relationship, more than a simple encounter where biomedicine can flex its muscles against a disease, is the expected moment where the patient's illness will be alleviated. The scientific construct "disease" have none correlation with the social construct "illness." Doctor and patient are, thus, not in opposing fields but in different universes.

It is time for a paradigm shift.

CONCLUSION

Clinical medicine should be the application of biomedicine-science, and the physician, more than an agent, would ideally be the adapter of the general science to individual needs. However, this does not occur. Both the physician and the patient become frustrated in the process. Clinical medicine is not only what the physician does, it is also the information he or she transmits. The clinical encounter and the information generated there follow different paths. The information is contextualized by biomedical culture, and, although it should serve the whole society, it almost becomes the property of the health care system. It is a mistake to confuse medical-practice style of reasoning with medical-text style of reasoning. While the latter uses rhetorical conventions, the former uses metaphors (Young, 1995). The information generated in relationships with patients excludes patients as readers and users, paternalistically considering these scientific results as the standard of care toward a community that cannot judge its fairness or appropriateness, since peer review is exactly what it means and the papers will be reviewed only by peers.

Canada is a multi-cultural society, where multi-culturalism is understood as “a social intellectual movement that promotes the value of diversity as a core principle and insists that all cultural groups be treated with respect and as equals” (Fowers and Richardson, 1996). Biomedicine is a culture. More, it is elitist, ideological, and highly hierarchical. The relationship of this culture with the other cultures that constitute the society can be exemplified by bioethics.

Optimal relationship between doctors and patients may not stress traditional ethical duty, and it may not be derived either from the patients' right to health care. A claim for health care is a social claim, not one directed to physicians in their individual relations with the patients (Zuger and Miles, 1987). In other words, ethical duty is not the same as professional duty. Indeed, medical systems existed for aeons without a patient-directed ethical standard. Not all similar acts are equal ethically. Similarly, not all similar medical acts are equal. Circumstances give each performed act a particular and unique essence, which escapes statistics. Bioethics increasingly became a necessity in our times due to the frequent conflict of interests between practitioners and users of the health care system. Designed to be critical, bioethics became, with time, another paramedical activity, deriving from biomedicine its language, model, method, and decision-making process. Even if, according to Spicker (1998), we cannot talk about one bioethics in all circumstances and contexts, the goal of bioethics migrated from an outside evaluation of the system, to an inside underwriting of procedures, which connects its destiny, in this paradigm, to that of biomedicine.

Medicine in the last 30 years evolved from Dr. Kildare to ER. In the first, a benevolent dedicated and paternalistic figure personified not only the romantic image that the public had about physicians but also the idealistic care giver they thought doctors were. In the second, paternalism was shifted from the professional to technology; the hassle and hustle of a modern hospital becomes an arena where life is a prize conquered thanks to the competence of a team. In both, the reality of life and death, health and disease, suffering and relief, are attenuated in favor of ratings, amusement, and advertisers. In both, medicine is just a show.

Most of us do not want prime-time TV images of reality. We want soft-core programs to help us digest dinner. The problem with this desire is that we accept stereotypes in massive daily doses, and they shape the way we see reality. Thanks to the media, as McLuhan (1967) pointed, we end up being the content, a passive and moldable mass without a collective personality.

Biomedicine is part of this mass-dream: a powerful tool that will someday conquer all suffering, and will, at the same time, bestow us with immortality, beauty, and eternal youth. While this is only a dream, we curse all health care professionals for their unfulfilled promises; we punish biomedicine denying it the power of autonomous exercise of the profession that almost all other professions have; we hold physicians personally responsible for the uncertainty of their science. We are angry because the dreams we have are not true.

The health care system and the patients orbit the physician, and the physician orbits biomedical science, yet this biomedical science faces an internal contradiction. The aim of biomedicine is linked to the health of the patient. The definition of health and health related issues can be construed from the inside of the science, or from outside of it. The problem arises when the science imposes to the community at large its definitions, especially if this community already has different definitions. Biomedicine is left with a science that cannot be fully exercised because of the cultural resistance exerted by the object of its practice.

The biomedical model, which arises from a different time and society, cannot adequately function in its antiquated state. Yet, we still need physicians with their promises of cures. According to Kuhn (1978), a paradigm shift, or at least a

Hegelian qualitative jump, is about to occur. It appears to me that a reformulation of the biomedical paradigm, meaning the molecular and biological basis of today's medicine is mandatory. That does not mean that the present model is wrong, this is not a question of right versus wrong, it only means that in my opinion biomedicine is creating more problems than solutions. What will be biomedicine's new face is not the aim of this monograph. I can however fantasize that the biopsychosocial definition of health would be less medicalized, and scientific method will open new avenues where individual expressions such as illness will be respected. For how long bioethics will be needed in this new paradigm remains to be seen. However, we can almost take it for certain that once the conflict between patients' illnesses and physicians' diseases are solved, most of the fuel for bioethical interventions will be exhausted. A new health care system would also include a progressive licensing and insuring of practitioners of alternative medicines, as is already being the case with midwives in Quebec, and a redesign of the roles of many, if not all, paramedical professions.

REFERENCES

Abir-Am, PG: *How Scientists View Their Heroes: Some Remarks on the Mechanism of Myth Construction.* Journal of the History of Biology. 15: 281-315, 1982.

Abramovitch, H and Schwartz, E: *Three Stages of Medical Dialogue.* Theoretical Medicine 17(2): 175-187, 1996.

Ackerknecht, EH: *Anticontagionism Between 1821 and 1867.* Bull. Hist. Med. 28: 562-593, 1948.

Ackerknecht, Erwin H: A SHORT HISTORY OF MEDICINE. Baltimore: The Johns Hopkins University Press, 1992.

Agich, GJ: *The Foundation of Medical Ethics.* Metamedicine. 2: 31-34, 1981.

Alexander, F: MEDICINA PSICOSSOMÁTICA – Princípios e Aplicações (Psychosomatic Medicine - Principles and Applications). São Paulo: Editora Artes Médicas, p. 44, no date.

Arluke, A; Kennedy, L and Kessler, R C: *Reexamining the Sick-Role Concept: An Empirical Assessment.* Journal of Health and Social Behavior, 20(3): 30-36, 1979.

Armstrong, D: *The Patient's View.* Soc. Sci. .Med.. 18(9): 737-744, 1984.

Arnold, D: Introduction. In: COLONIZING THE BODY: State Medicine and Epidemic Disease in Nineteenth-Century India. Berkeley: University of California Press, 1993, p.1-10.

Avicenna: A TREATISE ON THE CANON OF MEDICINE. London: Luzac & Co., 1930, p. 173-256.

Axerlroad, D. The Need for Health Advocacy. In: Marks, JH, (ed.): ADVOCACY IN HEALTH CARE: The Power of a Silent Constituency. Clifton: Humana Press, 1984, p. 9-18.

Baker, R: *A Theory of International Bioethics: Multiculturalism, Postmodernism, and the Bankrupcy of Fundamentalism.* Kennedy Institute of Ethics Journal. 8(3): 201-231, 1998.

Balint, M: O MEDICO SEU PACIENTE E A DOENCA (The Physician, the Patient and the Disease). Rio de Janeiro: Livraria Atheneu, 1984.

Ballester, R and Perdiguero, E: El Metodo en Medicina desde la Antropologia.(The Medical Method as seen by Anthropology). In Somavilla, M JR, et.al. (eds.): TEORIA Y METODO DE LA MEDICINA. Málaga: Servicio de Publicaciones de la Universidad de Málaga, 1992, p. 51-65.

Barber, B: *Resistence by Scientists to Scientific Discovery.* Science. 134: 596-602, 1961.

Barber, JH and Kratz, CR: TOWARDS TEAM CARE. Edinburgh: Churchill Livingstone, 1980.

Barlett, E: AN INQUIRE INTO THE DEGREE OF CERTAINTY IN MEDICINE AND INTO THE NATURE AND EXTENT OF ITS POWER OVER DISEASE. Philadelphia: Lea and Blanchard, 1848.

Barnard, D: *The Coevolution of Bioethics and the Medical Humanities with Palliative Medicine, 1967-1997.* Journal of Palliative Medicine. 1(2): 187-193, 1998.

Baron, RJ: *Medical Hermeneutics: Where is the "Text" we are Interpreting?* Theoretical Medicine. 11: 25-28, 1990.

Barsky, A J: *The Paradox of Health.* N.Engl..J. Med. 318: 414-418, 1988.

Barsky, AJ and Borus, JF: *Somatization and Medicalization in the Era of Managed Care.* JAMA . 274 (24): 1931-1934, 1995.

Bates, D: Scholarly ways of Knowing: an Introduction. In: KNOWLEDGE AND THE SCHOLARLY TRADITIONS. Cambridge, Cambridge University Press, 1995, p. 1-22.

Beauchamp, TL and Childress, JF: PRINCIPLES OF BIOMEDICAL ETHICS. New York: Oxford University Press, 1983.

Beauchamp, TL and McCullough, LB: MEDICAL ETHICS - The Moral Responsibilities of Physicians. New Jersey: Prentice-Hall, Inc., 1984.

Bernard, J; Lemaire, JF; Larcan, A (dir.): L'ACTE DE NAISSANCE DE LA MÉDECINE MODERNE. LA CRÉATION DES ÉCOLES DE SANTÉ. Paris: Synthélabo, 1995.

Berst, J: *Radar.* PC Computing. 12(4): 13, 1999.

Boinet, E: LES DOCTRINES MÉDICALES – Leur Évolution. Paris : Ernest Flammarion, Éditeur, 1911, p.2 *et seg.*

Boorse, C: *On the Distinction Between Disease and Illness.* Philosophy and Public Affairs. 5:49-68, 1975.

Boorse, C: *Health as a Theoretical Concept.* Philosophy of Science. 44: 542-573, 1977.

Bourgeault, G: Qu'est-ce que la Bioéthique? In: Parizeau, MH (ed.): LES FONDEMENTS DE LA BIOÉTIQUE. Montreal: ERPI, 1992, p. 27-47.

Bowman CA: *Meta-Diagnosis: Towards a Hermeneutical Perspective in Medicine with an Emphasis on Alcoholism.* Theoretical Medicine. 13: 265-283. 1992.

Bozzini, L and Contandriopoulos, AP: *La Pratique Médicale au Québec: Mythes et Réalités.* Sociologie et Sociétés. IX:1, 1977.

Brill, NI: TEAM-WORK: Working Together in the Human Services. Philadelphia: JB Lippincott Company, 1976, p. 35.

Brody, H: *The Importance of Primary Care for the Theoretical Medicine: A Commentary.* Theoretical Medicine. 13:261-263, 1992.

Brody, H and Fletcher, JC: *The Healer's Power: The Dark Side of the Force.* The Pharos. Summer, p. 28-32, 1993.

Brody, H and Miller, FG: *The Internal Morality of Medicine: Explication and Application to Managed Care.* J. Med. Phil. 23(4): 384-410, 1998.

Bynum, WF: *"C'Est un Malade": Animal Models and Concepts of Human Diseases.* Journal of the History of Medicine and Allied Sciences. 45: 397-413, 1990.

Bywater, M: *The Doctors We Deserve?* New Statesman 11(507): 15-16, 1998.

Cabanis, PJG. DU DEGRÉ DE CERTITUDE DE LA MÉDECINE. Paris: de L'Imprimerie de Crapelet, 1803.

Camporesi, P: The Stupendous Abstinences. In: THE ANATOMY OF THE SENSES. Cambridge: Polity Press, 1994, p. 65-91.

Canguilhem, G: Existem Ciencias do Normal e do Patologico? (Are there Sciences of the Normal and of the Pathological?) In: O NORMAL E O PATOLOGICO. (The Normal and the Pathological). Rio de Janeiro: Forense-Universitaria, 1982, p. 87-189.

Canguilhem, G: L'Effet de la Bactériologie dans la fin des Théories Medicales au 19e Siècle. English version in: IDEOLOGY AND RATIONALITY IN THE HISTORY OF THE LIFE SCIENCES. Cambridge: MIT Press, 1988, p. 51-77.

Canton, A Dal and Castellano, M: *Theory of Urine Formation and Uroscopy. Diagnosis in the Medical School of Salerno.* Kidney International. 34: 273-277, 1988.

Capisano, HF: *Os Perigos do Ódio na Contra-Transferencia.* (The Dangers of Rage in the Counter-Transference). Rev. Bras. Psicanal. 21: 95-99, 1987.

Carson, RA: *Interpretive Bioethics: The Way of Discernment.* Theoretical Medicine. 11: 51-59, 1990.

Casarett, DJ; Daskal, F and Lantos, J: *The Authority of the Clinical Ethicist.* Hastings Center Report. 28(6): 6-11, 1998.

Cassell, EJ: THE NATURE OF SUFFERING AND THE GOALS OF MEDICINE. New York: Oxford University Press, 1991.

Cattorini, P and Mordacci, R: *The physician as care giver and researcher.* Thyroidology. 5(3): 73-76, 1993.

Cherniak, L and Tauber, AI: *Concerning Individuality.* Biology and Philosophy. 7: 489-499, 1992.

Clarke, JN: Health, Illness, and Medicine in Canada. In: THE MEDICAL PROFESSION. Toronto: McClelland & Stewart Inc., 1990, p. 198-223.

Collin, R: Existe-t-il une Doctrine Officielle? In: Carrel, A. et al: MÉDECINES HÉRETIQUES. Paris: Librairie Plon, 1935, p. 11-28.

Conrad, LI, *et. al.*: THE WESTERN MEDICAL TRADITION: 800 BC to AD 1800. Cambridge: Cambridge University Press, 1995.

Contenau, G: LA MÉDECINE EN ASSYRIE ET EN BABYLONIE. Paris: Librairie Maloine, 1938.

Cook, MA: PATIENT SATISFACTION WITH PATIENT-PHYSICIAN INTERACTION: An Historical View Trough Literature. PhD Dissertation to the Faculty of the Graduate School of Saint Louis University. 1988.

Crane, D: INVISIBLE COLLEGES – Diffusion of Knowledge in Scientific Communities. Chicago: The University of Chicago Press, 1972.

Crawford, S: *Informal Communication Among Scientists in Sleep Research.* Journal of the American Society for Information Science. 22(5): 301-310, 1971.

Curtin, M and Lubkin, IM: What is Chronicity? In: Lubkin, IM: CHRONIC ILLNESS – Impact and Interventions. Boston: Jones and Barlett Publishers, 1990, p. 2-20.

Cushing, JT: A Background Essay. In: Cushing, JT and McMullin E (eds.): PHILOSOPHICAL CONSEQUENCES OF QUANTUM THEORY - Reflections on Bell's Theorem. Notre Dame, University of Notre Dame Press, 1989, p. 1-24.

Cuzzani, P and Lie, RK: *The Importance of Epistemology for Clinical Practice.* Theoretical Medicine 12: 87-90, 1991.

Daniels, N: *Understanding Physician Power: A Review of the Social Transformation of American Medicine.* Philosophy and Public Affairs. 13(4): 347-357, 1984.

Dauer, FW: CRITICAL THINKING – An Introduction to Reasoning. Oxford: Oxford University Press, 1989.

Denton, JA.: MEDICAL SOCIOLOGY. Boston: Houghton Mifflin Company, 1978, p. 92-107.

Dickson, D: THE NEW POLITICS OF SCIENCE. Chicago: The University of Chicago Press, 1988.

Dixon, B.: BEYOND THE MAGIC BULLET. London: George Allen & Unwin, 1978.

Dougherty, CJ: *The Costs of Commercial Medicine.* Theoretical Medicine. 11(4): 275-286, 1990.

Ducanis, AJ and Golin, AK: The Client. In: Bayles, M (ed.): PROFESSIONAL ETHICS. Belmont: Wadsworth Publishing Co., 1981, p. 167-169.

Elstein, A: MEDICAL PROBLEM-SOLVING - An Analysis of Clinical Reasoning. Cambridge: Harvard University Press, 1978.

Engel, GL: *The Need for a New Medical Model: A Challenge for Biomedicine.* Science 196(4286): 129-136, 1977.

Engel, GL: How Much Longer Must Medicine's Science be Bound by a Seventeenth Century World View? In: White, KL: THE TASK OF MEDICINE - Dialogue at Wickenburg. Menlo Park: The Henry J. Kaiser Family Foundation, 1988, p. 113-136

Evans-Pritchard, EE: WITCHCRAFT, ORACLES, AND MAGIC AMONG THE AZANDE Oxford: Clarendon Paperbacks, 1976.

Ey, H; Bernard, P; and Brisset, C: Elementos de Psicologia Médica (Elements of Medical Psychology). In: MANUAL DE PSIQUIATRIA (Manual of Psychiatry); Sao Paulo, Editora Masson do Brasil Ltda., 1978, p. 3-56.

Fleck, L: GENESIS AND DEVELOPMENT OF A SCIENTIFIC FACT. Chicago: The University of Chicago Press, 1979.

Flew, A.: A DICTIONARY OF PHILOSOPHY. New York: St. Martin Press, 1984.

Foster, GM: *Disease Etiologies in Non-Western Medical Systems.* American Anthropologist 78: 773, 1976.

Fowers, BJ and Richardson, FC: *Why is Multiculturalism Good?* American Psychologist 51: 609-621, 1996.

Franco, FOM: *E O Rei Está Nu: Reflexões sobre a Neutralidade* (And the King is Naked. Reflections about Neutrality). Rev. Bras. Psicanal. 14: 67-86, 1980.

Frazier, SH: Introductory Remarks. In: Kolow, SH: Mandell, AJ and Shlesinger, MF (eds.): PERSPECTIVES IN BIOLOGICAL DYNAMICS AND THEORETICAL MEDICINE. Annals of the New York Academy of Sciences, vol. 504, 1987, p. vii.

Frederikson, LG: The Role of Information in Medical Consultation. DAI-C 55/03, p.1 University of York, UK, (0769), 1992, p. 548.

Freidson, E: PROFESSION OF MEDICINE - A Study of the Sociology of Applied Knowledge. Chicago: The University of Chicago Press, 1988.

French, R: Astrology in Medical Practice. In: Garcia-Ballester, L and French, R: PRACTICAL MEDICINE FROM SALERNO TO THE BLACK DEATH. Cambridge: Cambridge University Press, 1994, p. 30-59.

Freud, S: La Dinamica de la Transferencia (The dynamics of Transference). In: OBRAS COMPLETAS (Complete Works). Madrid :Editorial Biblioteca Nueva, vol.II, p.1648-1653 (originally published in 1912).

Frohock, FM: HEALING POWERS - Alternative medicine, Spiritual Communities, and the State. Chicago: The University of Chicago Press, 1992.

Froom P and Froom J: *Selection Bias in Using Data from one Population to another: Common Pitfalls in the Interpretation of Medical Literature.* Theoretical Medicine 13: 255-259, 1992.

Furst, LR: BETWEEN DOCTORS AND PATIENTS - The Changing Balance of Power. Charlottesville: University Press of Virginia, 1998.

Gauthier, Y: LA PHILOSOPHIE DES SCIENCES - Une Introduction Critique. Montreal: Les Presses de L'Université de Montréal, 1995.

Gelfand, M: PHILOSOPHY AND ETHICS OF MEDICINE. Edinburgh: E&S Livingstone Ltd., 1968.

Gevitz, N: Unorthodox Medical Theories. In Bynum WF and Porter R: COMPANION ENCYCLOPEDIA OF THE HISTORY OF MEDICINE. London: Routledge, 1993, p.603-633.

Gillick, MR: *Common-Sense Models of Health and Disease.* N. Engl. J. Med. 313(11): 700-703, 1985.

Gillon, R: *Doctors and Patients.* Brit. Med. J. 292: 466-469, 1986.

Gödel, K: *Über Formal Unentscheidbare Sätze der Principia Mathematica und Verwandter Systeme* (On Formally Undecidable Propositions of Principia Mathematica and Related systems). Monatshefte der Mathematik und Physik, 38: 173-198, 1931.

Goldstein, K: LA NATURALEZA HUMANA A LA LUZ DE LA PSICOPATOLOGÍA (The Human Nature on the Light of the Psychopathology). Buenos Aires: Editorial Paidos, 1961.

Good, BJ: MEDICINE, RATIONALITY, AND EXPERIENCE - An anthropological perspective. Cambridge: Cambridge University Press, 1995.

Gove, PB (ed.): WEBSTER THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE UNABRIDGED. Chicago: Encyclopædia Britannica Inc., 1976.

Gracia, D: El Metodo de la Medicina Visto desde la Filosofia (The Medical Method as Seen from Philosophy). In: Somavilla, MJR, et.al. (eds.): TEORIA Y METODO DE LA MEDICINA. Málaga: Servicio de Publicaciones de la Universidad de Málaga, 1992, p.33-40.

Gregory, B: Addendum to Relativism in Science. In: Gardner, M: ON THE WILD SIDE. Buffalo: Prometheus Books, 1992, p.77-86.

Haire. M: The Concept of Power and the Concept of Man. In: Argyris, C (ed.): SOCIAL SCIENCE APPROACHES TO BUSINESS BEHAVIOR. Homewood: The Dorsey Press Inc., 1962, p. 163-183.

Hampton, JR and Julian, DG: *Role of the pharmaceutical industry in major clinical trials.* Lancet. 2(8570): 1258-1259, 1987.

Hardin, R: MORALITY WITHIN THE LIMITS OF REASON. Chicago: The University of Chicago Press, 1988.

Hayek, FA von: THE COUNTER-REVOLUTION OF SCIENCE – Studies on the Abuse of Reason. Indianapolis: Liberty Fund, 1979.

Hesse, MB: The Explanatory Function of Metaphor. In: MODELS AND ANALOGIES IN SCIENCE. Notre Dame: University of Notre Dame Press, 1970, 157-177.

Hesslow, G: *Do We Need a Concept of Disease?* Theoretical Medicine 14: 1-14, 1993.

Hiley, DR; Bohman, JF; and Shusterman, R (eds.): THE INTERPRETIVE TURN – Philosophy, Science, Culture. Ithaca: Cornell University Press, 1991.

Hofer, BK and Pintrich, PR: *The Development of Epistemological Theories: Beliefs about Knowledge and Knowing and their Relation to Learning.* Reviews of Educational Research. 67(1): .88-140, 1997.

Hopps, HC: La Enfermedad como Fenómeno Patológico (Disease as a Pathological Phenomena). In: PATOLOGIA. México: Editorial Interamericana, S.A., 1966,.1-14.

Johannitius (Humain ibn Ishaq): The Beginning of the Introduction to Medicine. In: Grant, E (ed.): A SOURCE BOOK IN MEDIEVAL SCIENCE. Cambridge: Harvard University Press, 1974, p. 705-715.

Jonsen, AR: *The Birth of Bioethics.* Hastings Center Report, supplement 23(6): s1-s4, 1993.

Jonsen, AR; Siegler, M; and Winslade, WJ: CLINICAL ETHICS - A Practical Approach to Ethical Decisions in Clinical Practice. McGraw-Hill, New York, 1998

Jordanova, L: *The Social Construction of Medical Knowledge.* Social History of Medicine, 7:361-381, 1995.

Kahn, A: *Four Ways To Get Your Doctor's Attention.* Self. 20(5): 91, 1998.

Kahn, RA: SICKNESS AND HEALING: An Anthropological Perspective. New Haven: Yale University Press, 1995.

Kassirer, JP: *Diagnostic Reasoning.* Annals of Internal Medicine. 110: 893-900, 1989.

Katz, J: A HISTORY OF SILENCE - The Silent World of Doctor and Patient. New York: Free Press, 1984.

Keyserlingk, EW: Medical Codes and Oaths. In: Chadwick, R (ed.): ENCYCLOPEDIA OF APPLIED ETHICS. San Diego: Academic Press, 1998, vol. 3, p.155-163.

Khushf, G: *Why Bioethics Needs the Philosophy of Medicine: Some Implications of Reflection on Concepts of Health and Disease.* Theoretical Medicine. 18:145-163. 1997.

King, LS: MEDICAL THINKING - A Historical Preface. Princeton: Princeton University Press, 1982.

Kleinman, A., SOCIAL ORIGINS OF DISTRESS AND DISEASE: Depression, Neurasthenia and Pain in Modern China. New Haven: Yale University Press, 1986.

Kleinman, A: *Culture and Clinical Reality: Commentary on Culture-Bound Syndromes and International Disease Classifications.* Culture, Medicine and Psychiatry 11: 49-52, 1987.

Kleinman, A: THE ILLNESS NARRATIVES - Suffering, Healing, and the Human Condition. New York: Basic Books, 1988.

Kleinman, A; Eisenberg, L and Good, B: *Clinical Lessons From Anthropologic and Cross-Cultural Research.* Annals of Internal Medicine, 88:251-258, 1978.

Kodner, I: *The Patient-Physician Relationship: Can we Reclaim Medicine?* Vital Speeches of the Day 64 (22): 695-698, 1998.

Koven, SJ: *A Piece of my Mind: The Ungifted Physician.* JAMA. 279(20): 1607, 1998.

Kuhn, TS: A ESTRUTURA DAS REVOLUÇÕES CIENTÍFICAS (The Structure of Scientific Revolutions). São Paulo: Editora Perspectiva, 1978.

Lacan, J: O Amor e o Significante (The Love and the Signifier). In: O SEMINARIO (The Seminaire). Rio de Janeiro: Jorge Zahar Editor, 1985, p. 53-69.

Lalonde, M: A NEW PERSPECTIVE ON THE HEALTH OF CANADIANS - A Working Document. Ottawa: Information Canada, 1975.

Laposata, M: SI UNIT CONVERSION GUIDE. Boston: NEJM Books, 1992.

Last, M.: *The Importance of Knowing About Not Knowing.* Soc. Sci. Med. 15B: 387-392, 1981.

Lebel, L: L'APPROCHE MANAGED CARE - Le Concept, ses Impacts, son Potentiel au Québec. Montréal, Association des Hôpitaux du Québec, 1996.

Leca, AP: LA MÉDECINE EGYPTIENNE AU TEMPS DES PHARAONS. Paris: Les Editions Roger Dacosta, 1971.

Leder, D: *Clinical Interpretation: The Hermeneutics of Medicine.* Theoretical Medicine 11: 9-24, 1990.

Leeuwen, E van and Krisma, GK: *Philosophy of Medical Practice: A Discursive Approach.* Theoretical Medicine, 18:99-112, 1997.

Lemieux, V et al: LE SYSTÈME DE SANTÉ AU QUÉBEC - Organizations, Acteurs et Enjeux. Sainte-Foy: Les Presses de L'Université Laval, 1994.

Light, D and Levine, S: *The Changing Character of the Medical Profession: A theoretical Overview.* The Milbank Quarterly, 66 (suppl.2): 10-32, 1988.

Lilja, J: *How Physicians Choose their Drugs.* Soc. Sci. Med. 10: 363-365, 1987.

Lindahl, BIB: *Discovery, Theory Change, and the Nobel Prizes: on the Mechanisms of Scientific Evolution. An Introduction.* Theoretical Medicine. 13: 97-116, 1992.

Little, MO: *Why a Feminist Approach to Bioethics?* Kennedy Institute of Ethics Journal. 6(1): 1-18, 1996.

Lloyd, EA: Normality and Variation - The Human Genome Project and the Ideal Human Type. In: Cranor, CF (ed.): ARE GENES US? The Social Consequences of the new Genetics. New Brunswick: Rutgers University Press, 1994, p. 99-112.

Lloyd, GER: ADVERSARIES AND AUTHORITIES – Investigations into Ancient Greek and Chinese Science. Cambridge: Cambridge University Press, 1996.

Lock, M: The Pattern of the Patient as Person: Contemporary Attitudes Towards the Alleviation of Suffering in North-America. In Kawakita, Y; Sakai, S; Otsuka, Y (eds.): HISTORY OF THE DOCTOR-PATIENT RELATIONSHIP. Proceedings of the 14th International Symposium on the Comparative History of Medicine – East and West. Tokio: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 99-130.

Lubkin, IM: Illness Roles. In: CHRONIC ILLNESS – Impact and Interventions. Boston: Jones and Barlett Publishers, 1990, p.43-64.

Lynn, J and DeGrazia, D: *An Outcomes Model of Medical Decision Making.* Theoretical Medicine. 12: 325-343, 1991.

Mackenzie, D: Nuclear Missile Testing and the Social Construction of Accuracy. In Biagioli, M (ed.): THE SCIENCE STUDIES READER. New York: Routledge, 1999. p. 342-357.

Macklin, R: *Ethical Relativism in a Multicultural Society.* Kennedy Institute of Ethics Journal. 8(1): 1-22, 1998.

Malmsheimer, R: DOCTORS ONLY - The Evolving Image of the American Physician. New York: Greenwood Press, 1988.

Mandell, AJ and Shlesinger, MF (eds.): PERSPECTIVES IN BIOLOGICAL DYNAMICS AND THEORETICAL MEDICINE. Annals of the New York Academy of Sciences, vol. 504, 1987, p. 1-11.

Mann, DW: *Some Philosophical Directions Towards a Simple theory of the Self.* Theoretical Medicine 12: 53-68, 1991.

Manning, RL: Modern Medicine. In: THEORIES AND PHILOSOPHIES OF MEDICINE. New Delhi: Institute of History and Medical Research, 1973, p. 437-447.

Margolis, H: PARADIGMS AND BARRIERS - How Habits of Mind Govern Scientific Beliefs. Chicago: The University of Chicago Press, 1993.

Marsh, FH and Yarborough, M: Defining the Problem. In: MEDICINE AND MONEY: A Study of the Role of Beneficence in Health Care Cost Containment. New York: Greenwood Press, 1990, p. 3-23.

May, RM: Non Linearities and Complex Behavior in Simple Ecological and Epidemiological Models. In: Koslov, SH; Mandell AJ; and Shlesinger, MF (eds.): PERSPECTIVES IN BIOLOGICAL DYNAMICS AND THEORETICAL MEDICINE. Annals of the New York Academy of Sciences, vol. 504, 1987, p. 1-11.

May, WF: *Money and the Medical Profession.* Kennedy Institute of Ethics Journal. 7(1): 1-13, 1997.

McCullough, LB: *Moral Authority, Power, and Trust in Clinical Ethics.* J. Med. Phil. 24(1): .3-10, 1999.

McKeown, T: THE MODERN RISE OF POPULATION. New York: Academic Press, 1976.

McLuhan, M and Fiore, Q: THE MEDIUM IS THE MASSAGE. New York: Bantam Books, 1967.

McVaugh, M: *Quantified Medical Theory and Practice at Fourteenth Century Montpellier.* Bull. Hist. Med. 43: 409-413, 1969.

Meador, CK: *The Art and Science of Nondisease.* N. Eng. J. Med.. 272(2): 92-95, 1965.

Mechanic, D: *Social Psychologic Factors Affecting the Presentation of Bodily Complaints.* N. Eng. J. Med. 286(21): 1132-1139, 1972.

Mechanic, D: *Physicians and Patients in Transition.* Hastings Center Report. 15(6): 9-12, 1985.

Mechanic D and Volkart, E: *Stress, Illness behavior and the sick-role.* Am. Sociol. Rev. 25: 52, 1961.

Medical Research Council of Canada, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada: TRI-COUNCIL POLICY STATEMENT - Ethical Conduct for Research Involving Humans. Ottawa: Public Works and Government Services Canada, 1994, 1996, and 1998.

Morowitz, HJ: Information. In: FOUNDATIONS OF BIOENERGETICS. New York: Academic Press, 1978, p. 78-88.

Moskop, JC: The Nature and Limits of the Physician's Authority. In: Staum, MS and Larsen, DE (eds.): DOCTORS, PATIENTS, AND SOCIETY - Power and Authority in Medical Care. Waterloo: Wilfried Laurier University Press, 1980, p. 29-44.

Murphy, EA: *The Pursuit of the Minor Premise - A Commentary on Normality.* Metamedicine 2: 283-299, 1981.

Murphy, EA: THE LOGIC OF MEDICINE. Baltimore: The Johns Hopkins University Press, 1997.

Mustard, JF and Frank, J: THE DETERMINANTS OF HEALTH. Toronto: Canadian Institute for Advanced Research, 1991. Publication number 5.

Nessa, J: *About Signs and Symptoms: Can Semiotics Expand the View of Clinical Medicine?* Theoretical Medicine. 17(4): 363-377.

Neuberger, GB and Woods, CT: Alternative Modalities. In: Lubkin, IM: CHRONIC ILLNESS – Impact and Interventions. Boston: Jones and Barlett Publishers, 1990, p. 340-356.

Nordenfelt, L: *Concepts of Health and their Consequences for Health Care.* Theoretical Medicine. 14:277-285, 1993.

Nutton, V: Medicine in the Greek World, 800-50 BC. In: Conrad, LI *et.al.*: THE WESTERN MEDICAL TRADITION - 800 BC to AD 1800. Cambridge: Cambridge University Press, 1995, p. 11-38.

Parenti, F and Fiorenzola, F: La Medicina Divinatoria Sumerica ed Assiro-Babilonese (Sumerian and Assirian-Babilonian Sacred Medicine). In: LE BASI

DELLA MEDICINA NEL MONDO ANTICO - Saggio di Critica Storica (The Basis of Medicine in Ancient World, a Critical Historic Essay). Milan: Ulrico Hoepli Editore, 1968, p. 36-41.

Parenti, M: Who Controls the News? The Myths of Independence and Objectivity. In: INVENTING REALITY - The Politics of the Mass Media. New York: St Martin's Press, 1989 p.35-61.

Park, K: The Medical Marketplace. In: DOCTORS AND MEDICINE IN EARLY RENAISSANCE FLORENCE. Princeton: Princeton University Press, 1985, p. 85-117.

Parsons, T: The Situation of Medical Practice. In: THE SOCIAL SYSTEM. The Free Press of Glencoe, 1964 p. 439-454.

Parsons, T: *The Sick Role and the Role of the Physician Reconsidered.* The Milbank Memorial Fund Quarterly. 53(3): 257-278, 1975.

Pazzini, A., Pirani, E., Introduction. In: HERBARIUM - Natural Remedies from a Medieval Manuscript. New York: Rizzoli International Publications, Inc., 1980, pages unnumbered.

Peirce, CS: Abduction and Induction. In: Buchler, J (ed.): PHILOSOPHICAL WRITINGS OF PEIRCE. New York: Dover Publications Inc., 1955, p.150-156.

Peirce, CS: ESSAYS IN THE PHILOSOPHY OF SCIENCE. New York, Liberal Arts Press, 1957.

Peirce CS: Illustrations of the Logic of Science. In: Moore, EC (ed.): THE ESSENTIAL WRITINGS - Charles S Peirce. Amherst: Prometheus Books, 1998, p. 119-157.

Pellegrino, ED and Thomasma, DC: A PHILOSOPHICAL BASIS OF MEDICAL PRACTICE - Toward a Philosophy and Ethic of the Healing Professions. New York: Oxford University Press, 1981.

Perestrello, D: A MEDICINA DA PESSOA (The Medicine of the Person). Rio de Janeiro: Livraria Atheneu, 1982.

Piaget, J: Epistemologie de la Physique. In: LOGIQUE ET CONNAISSANCE SCIENTIFIQUE Paris: Editions Galimard, 1967, p. 597-777.

Picard, E: The Doctor-Patient Relationship and the Law. In: Staum, MS and Larsen DE (eds.): DOCTORS, PATIENTS, AND SOCIETY - Power and Authority in Medical Care. Waterloo: Wilfrid Laurier University Press for the Calgary Institute for the Humanities, 1981, p. 45-57.

Pickett, STA; Kolasa, J and Jones, CG: ECOLOGICAL UNDERSTANDING – The Nature of theory and the Theory of Nature. New York: Academic Press, 1994.

Pineault, R; Contandriopoulos, AP and Lessard, R: *The Quebec Health System: Care Objectives or Health Objectives?* Journal of Public Health Policy. 6 (3): 394-409, 1985.

Platt, R: DOCTOR AND PATIENT - Ethics, Morale, Government. London: The Nuffield Provincial Hospitals Trust, 1963.

Poland, SC: *Landmark Legal Cases in Bioethics.* Kennedy Institute of Ethics Journal 7(2): 191-209, 1997.

Porter, R: The Patient in England. In: Wear, A (ed.): MEDICINE IN SOCIETY: Historical Essays. Cambridge: Cambridge University Press, 1992, p. 91-118.

Porter, R: The Eighteenth Century. In: Conrad, LI *et. al.:* THE WESTERN MEDICAL TRADITION: 800 BC to AD 1800. Cambridge: Cambridge University Press, 1995, p. 371-475.

Potter, K (ed.): *Latest Medical Breakthroughs! New Miracle Cures.* Sun, Boca Raton, Dec. 8th, 1998, p. 1.

Precope, J: Egyptian Myths and Medicine. In: MEDICINE, MAGIC AND MYTHOLOGY. London: William Heinemann Medical Books Ltd., 1954.

Pruitt, RD: *Death as an Expression of Functional Disease.* Mayo Clin. Proc. 49: 627-634, 1974.

Quill, TE and Brody, H: *Physician Recommendations and Patient Autonomy: Finding a Balance between Physician Power and Patient Choice.* Annals of Internal Medicine. 125(9): 763-769, 1996.

Rabinowitz, M: *Medicine as a Trade.* Theoretical Medicine. 1(3): 255-262, 1980.

Rauffenbart, S: Communication Networks. In: Marks, JH (ed.): ADVOCACY IN HEALTH CARE: The Power of a Silent Constituency. Clifton: Humana Press, 1984, p. 113-118.

Rawcliffe, C: MEDICINE AND SOCIETY IN LATER MEDIEVAL ENGLAND. Gloucestershire: A. Sutton, 1995.

Raymond, S: LIFE SCIENCES AND HEALTH CHALLENGES. New York: New York Academy of Sciences, 1998.

Relman, AS: *The Health Care Industry: Where is it Taking Us?* N. Eng. J. Med. 325(12): 854-859, 1991.

Reuters: *Survey Finds US Boom in Alternative Medicine..* http://www.infobeat.com/stories/cgi/story.cgi?id=2557040041-970. Nov 10, 1998; 01:00 PM ET.

Ridderekhoff, J: *Problem-Solving in General Practice.* Theoretical Medicine 14: 343-363, 1993.

Risse, GB: A Shift in Medical Epistemology: Clinical Diagnosis, 1770-1828. In Kawakita Y, Sakai, S, Otsuka, Y, (eds.): HISTORY OF THE DOCTOR-PATIENT RELATIONSHIP. Proceedings of the 14th International Symposium on the Comparative History of Medicine - East and West.Tokyo: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 115-147.

Rizzi, DA and Pedersen, SA: *Causality in Medicine: Towards a Theory and Terminology.* Theoretical Medicine 13: 233-254, 1992.

Rorty, R: Inquiry as Recontextualization: An Anti-Dualist Account of Interpretation. In Hiley, DR; Bohman, JF; and Shusterman, R (eds.): THE INTERPRETIVE TURN – Philosophy, Science, Culture. Ithaca: Cornell University Press, 1991, p. 59-80.

Roy, DJ: Biomedical Power Equals Moral Authority? In Staum, MS and Larsen, DE: DOCTORS, PATIENTS, AND SOCIETY - Power and Authority in Medical Care. Waterloo: Wilfried Laurier University Press, 1980, p. 15-28.

Rynearson, EK: *The Helpful Physician and the Unhealpable Patient.* Postgrad. Med. 58(2): 145-150, 1975.

Savitt, TL: Self-Reliance and the Changing Physician-Patient Relationship in Nineteenth and Early Twentieth Century America..In: Kawakita, Y; Sakai, S and Otsuka, Y (eds.): HISTORY OF THE DOCTOR-PATIENT RELATIONSHIP. Proceedings of the 14th International Symposium on the Comparative History of Medicine – East and West. Tokio: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 73-98.

Sawyer, RC: Friends or Foes? Doctors and their Patients in Early Modern England. In: Kawakita,Y, Sakai, S, and Otsuka, Y, (eds.): HISTORY OF THE DOCTOR-PATIENT. Proceedings of the 14th International Symposium on the Comparative History of Medicine - East and West. Tokyo: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 31-53.

Schrödinger, E: The Classical Physicist's Approach to the Subject. In: WHAT IS LIFE? Cambridge: Cambridge University Press, 1994, p. 3-18.

Schwartz, H and Kart, CS.: DOMINANT ISSUES IN MEDICAL SOCIOLOGY. Reading: Addison-Wesley Publishing Company, 1978, p. 5-15.

Schwartz, WB: LIFE WITHOUT DISEASE - The Pursuit of Medical Utopia. Berkeley: University of California Press, 1988.

Segall, A: *The Sick-Role Concept: Understanding Illness Behavior.* Journal of Health and Social Behavior. 17: 163, 1976.

Seligson, SV.: *Melding Medicines.* Health. 12(4): 64-70, 1998.

Selikoff, IJ: Confessions of a Naïve Scientist. In: ADVOCACY IN HEALTH CARE: The Power of a Silent Constituency. Marks, JH (ed.). Clifton: Humana Press, 1984, p. 95-97.

Shah, CP: Regulation of Health Professionals. In: PUBLIC HEALTH AND PREVENTIVE MEDICINE IN CANADA. Toronto: University of Toronto Press, 1994, p. 399-413.

Shapiro, AK and Shapiro, E: THE POWERFUL PLACEBO – From Ancient Priest to Modern Physician. Baltimore: The Johns Hopkins University Press, 1997.

Shaw, WH and Barry, V: Utilitarianism. In: MORAL ISSUES IN BUSINESS, New York: Wadsworth, 1995, p. 59-65.

Shorter, E: DOCTORS AND PATIENTS - A Social History. New Brunswick: Transaction Publishers. 1990.

Shorter, E: FROM PARALYSIS TO FATIGUE – A History of Psychosomatic Illness in the Modern Era. New York: The Free Press, 1992.

Shorti, S: *Physicians, Science and Status; Issues in the Professionalization of Anglo-American Medicine in the 19th Century.* Med. Hist. 27: 51-68, 1983.

Shusterman, R (eds.): THE INTERPRETIVE TURN – Philosophy, Science, Culture. Ithaca: Cornell University Press, 1991, p. 59-80.

Siegenthaler, W (ed.): FISIOPATOLOGÍA CLÍNICA. (Clinical Phisiopathology). Barcelona: Ediciones Toray, SA., 1977.

Siegler, M: *Falling off the Pedestal: What is Happening to the Traditional Doctor-Patient Relationship?* Mayo Clin. Proc. 68: 461-467, 1993.

Sigerist, HE *The History of Medicine and the History of Science. An Open Letter to George Sarton, Editor of Isis.* Bulletin of the Institute of the History of Medicine. 1(4): 1-13, 1936.

Singer, P: Relativism. In: Wong, D: A COMPANION TO ETHICS. Cambridge: Blackwell, 1993, p. 442-450.

Siraisi, NG: Physiological and Anatomical Knowledge (p. 78-114), and Disease and Treatment (p. 115-152). In: MEDIEVAL & EARLY RENAISSANCE MEDICINE. Chicago: University of Chicago Press, 1990.

Sontag, S: ILLNESS AS METAPHOR and AIDS and its Metaphors. New York: Anchor Books – Doubleday, 1989.

Spicker, SF. Ratzan, RM: *Ars medicina et conditio humana: Edmund D. Pellegrino, M.D., on his 70th birthday.* Journal of Medicine & Philosophy. 15(3): 327-341, 1990.

Spicker, SF: *Bioethic(s): One or Many?* The Journal of Medicine and Philosophy 23(4):.347-355, 1998.

Stanbury, JB: *On the Patterns of Disease: a Nosography.* Perspectives in Biology and Medicine. 38(4): 521-534, 1995.

Starr, P: The Consolidation of Professional Authority 1850-1930. In: THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE. New York : Basic Books, 1982, p. 79-144.

Stein, HF and Apprey, M: CONTEXT AND DYNAMICS IN CLINICAL KNOWLEDGE. Charlottesville: University Press of Virginia, 1985.

Stern, S and Trajtenberg, M: EMPIRICAL IMPLICATIONS OF PHYSICIAN AUTHORITY IN PHARMACEUTICAL DECISION MAKING. Toronto: The Canadian Institute for Advanced Research, 1998.

Stevens, R: AMERICAN MEDICINE AND THE PUBLIC INTEREST – A History of Specialization. Berkeley: University of California Press, 1998.

Stevenson, MH and Williams PA: Physicians and Medicare: Professional Ideology and Canadian Health-Care Policy. In: Bolaria, SB and Dickinson, HD (eds.): SOCIOLOGY OF HEALTH CARE IN CANADA. Toronto: Harcourt Brace Jovanovitch 1988, p. 92-103.

Steward, DS and Sullivan, TJ: *Illness Behavior and the Sick Role in Chronic Disease. The Case of Multiple Sclerosis.* Soc. Sci. Med. 16: 1397-1404, 1982.

Stimson, GV: *Obeying Doctor's Orders: A view from the Other Side.* Soc. Sci. .Med. 8:97-104, 1974.

Sulmasy, DP: *What's So Special About Medicine?* Theoretical Medicine. 14: 27-42, 1993

Suppe, F: *Credentiating Scientific Claims.* Perspectives on Science, 1(2): 153-203, 1993.

Szabados, B: On Moral Expertise. In: Cragg, W: CONTEMPORARY MORAL ISSUES. Toronto: McGraw-Hill Ryerson Limited, 1987, p. 571-581.

Tallaferro, A: Topografía del Aparato Psíquico (Topography of the Psychic System). in: Curso Básico de Psicoanálisis (Psychoanalysis Basic Course). Buenos Aires: Editorial Paidos, 1972, p. 52-123.

Tambiah, SJ: Modern Science and its Extensions. In: MAGIC, SCIENCE, RELIGION, AND THE SCOPE OF RATIONALITY. Cambridge: Cambridge University Press, 1989, p. 140-156.

Taylor, C: The Dialogical Self. In: Hiley, DR; Bohman, JF; and Shusterman, R (eds.): THE INTERPRETIVE TURN – Philosophy, Science, Culture. Ithaca: Cornell University Press, 1991, p. 304-314.

Thomasma, DC: *Limitations of the Autonomy Model for the Doctor-Patient Relationship.* The Pharos 1983, p.2-5.

Thomasma, DC: The Goals of Medicine and Society. In : Brock, DH (ed.): THE CULTURE OF BIOMEDICINE. Newark: University of Delaware Press, 1984, p. 34-54.

Thomasma DC: *Establishing the Moral Basis of Medicine: Edmund D Pelegrino's Philosophy of Medicine.* Journal of Medicine and Philosophy. 15(3): 245-267, 1990.

Thomasma, DC and Pellegrino, ED: *Philosophy of Medicine as the Source for Medical Ethics.* Metamedicine. 2: 5-11, 1981.

Trennert, RA: WHITE MAN'S MEDICINE - Government Doctors and the Navajo, 1863-1955. Albuquerque: University of New Mexico Press, 1998.

Tristram Engelhardt, H: *Critical Care: Why There is no Global Bioethics.* The Journal of Medicine and Philosophy. 23(6): 643-651, 1998.

Trosko , JE: Scientific Views of Human Nature: Implications for the Ethics of Technological Intervention. In: Brock, DH (ed.): THE CULTURE OF BIOMEDICINE. Newark: University of Delaware Press, 1984, p. 70-97.

Tuchanska, B: *What is Explained in Science?* Philosophy of Science. 59: 102-119, 1992.

Turley, LAN: THE HISTORY OF THE PHILOSOPHY OF MEDICINE. University of Oklahoma Press, 1935.

Tyles, M: *The Normal and Pathological: The Concept of a Scientific Medicine.* Brit. J. Phil. Sci.. 44: 729-742, 1993.

Valenti, PF; Mazzei, ES and Masnatta, G: Concepto y Práctica de la Medicina Interna (Concept and Practice of Internal Medicine). In: MEDICINA INTERNA – Compendio Práctico de Patologia Médica y Terapéutica Clínica. Barcelona: Editorial Marin, S.A., 1970, vol. 1, p. 1-15.

Vannier, L., La Tradition Scientifique de L'Homoeopathie. In: Carrel, A: MÉDECINE OFFICIELLE ET MEDECINES HERETIQUES. Paris: Librairie Plon, 1945, p. 66-116.

Veatch, RM: *Abandoning Informed Consent.* Hastings Center Report 25(2): 5-12, 1995.

Velanovitch, V: *The Logic of the Medical Research Article.* Theoretical Medicine. 14: 257-265, 1993.

Wachbroit, R: *Normality as a Biological Concept.* Philosophy of Science. 61: 579-591, 1994.

Waddigton, I: *The Role of the Hospital in the Development of Modern Medicine: A Sociological Analysis.* Sociology. 7: 211-224, 1973.

Warner, JH: *The History of Science and the Sciences of Medicine.* Osiris. 10: 164-193, 1995.

Warren, J: *Remarks on Angina Pectoris.* N. Eng. J. Med. and Surgery. 1: 1-11, 1812.

Wear, A.; Geyer-Kordesch, J.; French, R. (eds.), DOCTORS AND ETHICS: The Earlier Historical Setting of Professional Ethic. Clio Medica, 24. Atlanta: Rodopi - Wellcome Institute Series in the History of Medicine, 1993.

Wear, S: *Nuancing the Healer's Art - the Epistemology of Patient Competence.* Metamedicine. 2: 27-30, 1981.

Weinstein, BD: *What is an Expert?* Theoretical Medicine. 14: 57-73, 1993.

Whitbeck, C: *On the Aims of Medicine: Comments on "Philosophy of Medicine as the Source for Medical Ethics".* Metamedicine. 2: 35-41, 1981(a).

Whitbeck, C: *What is Diagnosis? Some Critical Reflections.* Metamedicine 2: 319-329, 1981.

White, KL: THE TASK OF MEDICINE - Dialogue at Wickenburg. Menlo Park: The Henry J. Kaiser Family Foundation, 1988.

Wiener, N: CIBERNÉTICA E SOCIEDADE: O Uso Humano de Seres Humanos (The Human Use of Human Beings). São Paulo: Editora Cultrix, 1984.

Wiesing, U. and Welie, JVM: *Why Should Medicine Consider a Theory of Practice?* Theoretical Medicine and Bioethics 19: 199-202, 1998.

Wilson, ME: Introduction. In: DISEASE IN EVOLUTION. Annals of the New York Academy of Science, 1994, vol. 740, p. 1-12.

Wittern, R: Diagnostics in Clinical Greek Medicine. In: Kawakita, Y, Sakai, S, and Otsuka, Y (eds.): HISTORY OF THE DOCTOR-PATIENT RELATIONSHIP. Proceedings of the 14th International Symposium on the Comparative History of Medicine - East and West. Tokyo: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 69-89.

Worsley, P: *Non-Western Medical Systems.* Ann. Rev. Anthropol. 11: 315-348, 1982.

Wright, LM; Watson, WL and Bell, JM: BELIEFS – The Healing in Families and Illness. New York: Basic Books, 1996.

Wulff, HR; Pedersen, SA; and Rosenberg, R: PHILOSOPHY AND MEDICINE: An Introduction. Oxford: Blackwell Scientific Publications, 1986.

Yoder, SD: *The Nature of Ethical Expertise.* Hastings Center Report. 28(6): 11-19, 1998.

Yoshida, T: Some Problems in the Analysis of Manifestations of Sickness. In Kawakita, Y; Sakai, S; and Otsuka, Y (eds.): HISTORY OF THE DOCTOR-PATIENT RELATIONSHIP. Proceedings of the 14th International Symposium on the Comparative History of Medicine – East and West. Tokio: Ishiyaku EuroAmerica Inc. Publishers, 1995, p. 205-231.

Young, A: *The Creation of Medical Knowledge: Some Problems in Interpretation.* Soc. Sci. Med. 15B: 379-386, 1981.

Young, A: *The Anthropologies of Illness and Sickness.* Ann. Rev. Anthropol. 11: 257-285, 1982.

Young, A: Commentary. In: Bates, D: KNOWLEDGE AND THE SCHOLARLY MEDICAL TRADITION. Cambridge: Cambridge University Press, 1995. p.355-360.

Zuger, A and Miles, SH: *Physicians, AIDS, and Occupational Risk. Historic Traditions and Ethical Obligations.* JAMA. 258(14): 1924-1928, 1987.