The Placebo Effect:
Historical, Sociological, and Philosophical Perspectives

By

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Introduction

There is one component of healing that is shared the world over and has a legacy that dates back to the first attempt of one man to heal another; this is the placebo effect. The placebo effect has exerted its power to heal throughout history; even today, in our highly technological medical environment, it continues to operate. Despite its efficacy, the placebo effect often has negative connotations within the medical community. What is the placebo effect? How does "placebo" relate to the "placebo effect?" How did the concept develop historically? Under what circumstances is the placebo effect operative? What are some of the ethical considerations surrounding the use of placebo? Finally, how can the placebo effect be used ethically and effectively? These are several of the salient questions that will be addressed in this essay.

In the first chapter, I review a number of different definitions of the placebo, beginning with a historical analysis, and moving on to a review of current definitions. In chapter two, I trace the historical development of the placebo concept from Hippocrates to the present. Early authors recongnized the existence of the placebo effect, discussing it in terms of the effects of "passions" and the emotional life on sickness and healing. Later, terms such as psychosomatic medicine and holistic health were coined, all bearing in some manner on the placebo effect. In the 1940s, with the advent of the double-blind clinical trial, the placebo effect emerged as a legitimate topic for inquiry within biomedicine.

Chapter three addresses the manner in which the placebo effect contributes to healing. I begin by examining the disease/illness dichotomy, concluding that the placebo exerts its main effect on the illness component

of sickness(the patient's *experience* of the disease). By affecting the patient's experience of their disease, the placebo may in some instances, actually bring about biomedical healing. This healing via psychological and social factors has been labeled *symbolic healing* by some authors.

In chapter four, I examine the various ways in which the physician contributes to the placebo effect. These include the role of the physician/patient relationship, physician authority, and medical uncertaintly.

In chapter five, I will examine the ethics of giving placebos focusing on the issue of deception. Although I conclude that deception is unethical in the context of giving placebos, I will argue that the placebo effect can be achieved ethically without recourse to traditional placebos and deception.

Chapter One

Definitions of the Placebo and Placebo Effect

The definition of placebo has been transformed over time to fit the cultural and medical contexts in which it was used. The original Latin meaning was "I shall please." The first use of the word dates back to the thirteenth century. It appears in the Vespers for the Dead in the Roman Catholic service, the 114th Psalm, in the Vulgate, beginning "Placebo Domino in regione vivorum..." It was used in the sense of "I will walk before..." or "I will please..." It is then found, still outside the medical context, to mean flatterer, sycophant, or parasite. It was used in these ways by Chaucer, and as a "soothing sentiment" by Sir Walter Scott.[1]

Its first recorded meaning in relation to medicine dates to the 1787 edition of *Quincy's Lexican* where placebo is defined as "a commonplace method of medicine." It appeared in 1808, with the same definition, in the *Philadelphia Medical Dictionary*. These early appropriations of the term placebo into the medical jargon are interesting for several reasons. They do not contain any of the negative connotations that preceded them in the non-medical literature. Secondly, from our vantage point in the twentieth century, many writers would argue that in the late 1700s not only was placebo "a commonplace method of medicine," but the only method available. This condescending attitude toward early medical effectiveness is popular in the literature. However, it is also tempered by astute observations about more current therapies. In 1953, when several pharmacologically effective drugs were available, Findley states:

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1. Shapiro, A. K., "A contribution to a history of the placebo effect," *Behavioral Science* 5:109-35, 1960

> "One drug after another has its little day of popularity, then sinks into oblivion. Sheaves of paper by well-intentioned authors testify to their usefulness, but they are quickly replaced by others. This familiar phenomena is perhaps the strongest argument for the validity of placebo therapy, for it means faith endows drugs or treatments with powers which they themselves do not possess."[2]

A more pejorative connotation is given in the 1811 edition of *Hooper's Medical Dictionary*, where placebo is defined as "an epithet given to any medicine adopted more to please that to benefit the patient."[3] This definition seems to reflect the more general use of the placebo in the medical literature. This definition also reflects the paternalistic attitude of medicine; the physician knows that the placebo does not "benefit the patient," however he is forced to prescribe it to "please the patient."

At this point, I will review and analyse the current definitions for the placebo effect. Perhaps the most prevalent working definition is offered by Shapiro. As one of the earliest reviewers of the placebo effect, his definition has, at the very least, served as a point of departure for other definitions. His definition is stated in three parts.

First, he states that "a placebo is defined as any therapy or component of therapy that is deliberately used for its nonspecific, psychological, or psychophysiological effect, or that is used for its presumed specific effect, but is without specific activity for the condition being treated."[4] The first portion of Shapiro's definition quite correctly denotes that a placebo can be any form of therapy or component of therapy. Beyond the proverbial *pill*, surgery and injections may act as placebos. However, this first part of the definition is also problematic. The initial reference to *nonspecific effect*

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2. Ibid.
3. Byerly, H., "Explaining and exploiting placebo effects," *Persp. Biol. Med.* 19:425-36, 1976
4. Grunbaum, A., "The placebo concept," *Behav. Res. Therapy* 19:157-67, 1981

may have several meanings, and lead to erroneous conclusions. It implies that not only is the mechanism of the placebo effect shrouded in mystery, but it also implies that there is no target effect, or one that is somehow not *real* because it is nonspecific. This is due to the widespread belief that *nonspecific* is synonymous with subjective, or at the least scientifically inaccessible. These are problems that are inherent in conceptualizing the placebo effect within the confines of the biomedical paradigm which contains residues of the Cartesian mind/body dualism. He further enlarges the concept in the same sentence by noting that it may be used for a *specific effect* but without *specific activity for the condition being treated.* In this case, Shapiro is presumably referring to an *impure placebo* which has some pharmacological action but is not always used just for its direct effect; e.g. penicillin given to a recalcitrant patient with a viral respiratory infection who insists on receiving antibiotics, or a chronically fatigued patient who insists on vitamin B_{12} injections.

Shapiro then defines the placebo in the context of an experimental study. "A placebo, when used as a control in experimental studies, is defined as a substance or procedure that is without specific activity for the condition being studied."[5] Even if one asserts that the placebo lacks specific activity, it has an effect on the healing process for the condition being treated, and thus should be stated in a positive formulation to make this point clear.

Shapiro concludes with the following traditional definition of the placebo effect: "A placebo effect is defined as the psychological or psychophysiological effect produced by placebos."[6] This definition clearly

5. Ibid
6. Ibid.

implies that the placebo effect is mediated via psychological factors which *may* influence physiological processes.

Brody defines the placebo as, "a form of medical therapy, or an intervention designed to simulate medical therapy, that is believed to be without specific activity for the condition being treated and that is used for its symbolic effect or to eliminate observer bias in a controlled experiment."[7] Brody's definition suffers from several flaws. He states that placebos are used for their *symbolic effect*, without indicating what this precisely means. Are we to infer that placebos act only on a symbolic, subjective, or psychological level? He further confuses the point about placebo use in controlled trials by providing an inadequate explanation for their use in this context. It is primarily the double-blind nature of controlled experiments that are responsible for eliminating *observer bias*.

Wolf has defined the placebo response as "any effect attributable to a pill, potion, or procedure, but not to its pharmacodynamic or specific properties."[8] This is a broader definition which recognizes several techniques for eliciting the placebo effect.

Moerman, an anthropologist, refers to the placebo effect or inert medical treatment, as "general medical effectiveness." He states that general medical effectiveness "occurs when a patient, treated in a medical context, responds to the form (not the content) of the treatment: when, in other words, the patient exhibits a biological response to a symbolic stimulus, when he participates in symbolic healing."[9] This broader definition seems to express the social scientific perspective which emphasizes personal,

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7. Leslie, A., "Letter," *Ann. Intern. Med.* 97:781, 1982
8. Vogel, Albert V et. al. "The therapeutics of placebo," *AFP* Vo. 22, Number 1 (1980)
9. Moerman, Daniel E. "General medical effectiveness and human biology: placebo effects in the treatment of ulcer disease," *Medical Anthropology Quarterly.* August 1983; 14 (4).

social, and cultural factors (symbolic factors as a whole) that influence *healing*. This definition indicates that symbolic intervention can result in a biological response; this is one of the hallmarks of the placebo effect.

Frank, a psychiatrist, concludes that since placebos are inert, their beneficial effect lies in their "symbolic power."[10] Frank notes that placebos "inspire expectant trust and mobilize the patients' expectancy of help, hope, and of relief."[11] It is not surprising that a psychiatric perspective explains the placebo effect by the workings of *symbolic power* since psychiatry owes much of its therapeutic effectiveness to symbolic healing.

A final definition of the placebo is offered by Alan Leslie who defines the placebo as follows: "A placebo is a medicine or preparation which has no inherent pertinent pharmacologic activity but which is effective only by virtue of the factor of suggestion attendant upon its administration. The substance may be ingested, injected, inserted, inhaled or applied."[12] Since suggestion is the proposed mechanism of action in this definition, there is the implicit assertion of the importance of the physician-patient relationship in the placebo effect.

This brief review of definitions illustrates several essential aspects of the placebo effect. Most of the early definitions imply that placebos were not efficacious, but were given only to "please" the patient. Undoubtedly, placebos still carry with them these negative residues. However, the current definitions are much more sophisticated, and reveal not only a better understanding of the placebo effect, but a greater appreciation of its benefit to medical treatment.

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10. Byerly, H., "Explaining and exploiting placebo effects," *Persp. Biol. Med.* 19:425-36, 1976
11. Frank, J. *Persuasion and Healing*
12. Leslie, A., "Ethics and practice of placebo therapy," *Amer. J. Med.* 16:854-62, 1954

Chapter Two

Historical Development

The placebo effect has a long and controversial history within Western medicine. The early history of medicine is replete with references to the concept of the placebo effect. Although the term, *placebo effect*, is rarely used, the embryological meaning of the concept was recognized. Furthermore, I will argue that references to *holistic health*, and *psychosomatic medicine* provide the fertile soil for the later elaboration of the concept of the placebo effect. They were both ways of eliciting the placebo effect, by focusing on the relation between the mind and the body. I will trace this historical development into the 20th century, where I will focus on the double-blind clinical trial and its importance to the concept of placebo.

In Plato's time, there is an early understanding of the importance of holistic health; the body could not be adequately healed only with reference to itself. In the dialogue *Charmides*, Plato argues: "The cure of many diseases is unknown to the physicians of Hellas, because they disregard the whole, which ought to be studied also, for the part can never be well unless the whole is well."[13] Although this integral view was not dominant in Plato's day, Lipowski maintains that many medical writers from the Roman times onward have explicitly or implicitly advocated such a [holistic] approach. He cites Drabkin who observes: "A sense of inseparability of the psychic and somatic life grows out of basic human experience, and ancient literature, medical and nonmedical, has no end of

13. Lipowski, Z. J., "What does the word 'psychosomatic' really mean? A historical and semantic inquiry," *Psychosomatic Med.* 46:153-71, 1984.

examples of the somatic effects of emotional changes and the emotional effects of somatic changes."[14]

This recognition of mental factors as etiological agents of disease and as a form of therapy in Greek and Roman medicine is somewhat surprising. Their naturalistic form of medicine emphasized the somatic aspects of disease to distinguish itself from the supernaturalistic belief systems that preceded them. Nevertheless, Hippocrates recognized the importance of the emotional world as a possible cause of illness. He stated, "Fear, shame, pleasure, passion..to each of these the appropriate member of the body responds by its action. Instances are sweats, palpitations of the heart..."[15]

Although Galen allegedly adhered to the naturalistic form of medicine, emphasizing the somatic aspects of disease, he dealt at length with "passions"(often used for emotions) as etiological factors in diseases. He referred to grief, anger, lust, and fear as "diseases of the soul" to be diagnosed and cured.[16] As products of the vital soul, passions were the sixth of the six non-natural causes of disease in the Galenic system. These notions were remarkably influential. Ackerknecht states that over 100 books were written between 1550-1857 that developed on Galen's ideas.[17]

During the Renaissance, imagination became the mediator between the mind and the body. It supplanted the notion of passions as a cause and cure of disease. Pierre Pomponazzi, an Italian philosopher, uttered these words in the 16th century: "We can easily conceive the marvelous effects which confidence and imagination can produce...The cures attributed to

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14. Ibid.
15. Hippocrates. *Aphorisms*. Translated by F Adams. London, William Wood, 1886, p.143
16. Galen. *On the Passions and Errors of the Soul.* Translated by PW harkins. Ohio Staate University Press, 1963
17. Ackerknecht, Erwin, H, "The history of psychosomatic medicine, " *Psychological Medicine*, 12:17-24, 1982

the influence of certain relics, are the effect of this imagination and confidence. Quacks and philosophers know that if the bones of any skeleton were put in place of the saint's bones, the sick would none the less experience beneficial effects if they believed that they were near veritable relics."[18] In a similar vein, Paracelsus commented in the fifteenth century: "Whether the object of your faith be real or false, you will nevertheless obtain the same effects. Thus, if I believe in St. Peter's statue as I would have believed in St. Peter himself, I will obtain the same effects that I would have obtained form St. Peter;-but that is superstition. Faith, however, produces miracles and whether it be a true or a false faith, it will always produce the same wonders."[19] Although both of these writers are discussing the virtues of religious healing, they are cognizant of the importance that faith plays, albeit in a secular manner, in the placebo effect. Shapiro goes on to add that although Paracelsus opposed the polypharmacy of his day, and observed that medicine killed and nature healed, he still went on to practice his own occultism with its placebo cures.

In the 1637, Rene Descartes published his *Discourse on Method*, which had a major impact on medical thinking, research, and practice. I will digress briefly with an account of Cartesian dualism which has been a dominant theory of mind in Western history, and has significantly shaped the medical paradigm. Descartes' philosophical method initiates from the doubting mind, which implies that one exists. But the fact that one doubts reveals the limitations and imperfections of the mind which cause one to doubt. From this notion, according to Descartes, arises the concept of a perfect being; for to think of imperfection is to have a concept of perfection,

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18. Shapiro, A. K., "A contribution to a history of the placebo effect,"*Behavioral Science* 5:109-35, 1960
19. Ibid.

and hence a perfect being which created all other beings. This perfect being is God who is necessary for the thought of perfection to enter our finite minds. By defining God as a perfect being, Descartes implies that he must also be a beneficent being who does not want to deceive but enlighten man. Hence, the external world is knowable through the senses as certain as the internal world of the mind is knowable. This lays the groundwork for the notion of the mind/body duality. Man's animal nature(or body) shares with the lower animals the same mechanistic structure, but is clearly distinct due to his mind or soul which can compel him to act according to wisdom and virtue. For Descartes, the body by definition is material, and divisible while the conception of the mind is indivisible, immortal, and nonphysical. He states, however, that there is a causal connection between the mind and the body because the body can lead to impressions in the mind, while likewise the mind can cause the body to act in certain ways. Descartes was never clear about how this mediation takes place.

Although Descartes did posit some interaction between the mind and the body, they were conceptualized as such radically different entities that his philosophy became associated with a reductionistic and dualistic worldview. This philosophical doctrine was sanctioned by the church and allowed science to appropriate the body(it had already legitimated dissections) while the mind and soul was still left to the province of the church. Although this philosophical orientation was helpful to science and medicine, it eventually proved to be problematic. The mechanistic approach to healing tended to reduce patients to their disease, and neglect the broader aspects of healing.

However, Descartes' philosophy did not immediately create a dualistic paradigm within medicine which somatisized all illnesses. In the 18th

century, the Dutch physician Gaub, wrote that "the reason why a sound body becomes ill, or an ailing body recovers, very often lies in the mind. Contrariwise, the body can frequently both beget mental illnesses and heal its offspring." Thus, argues Gaub, "should the physician devote all of his efforts to the body alone, and take no account of the mind, his curative endeavors will pretty often be less than happy and his purpose either wholly missed or part of what pertains to it neglected."[20]

In the 18th century, Benjamin Rush, known as the father of American psychiatry, stated the following: "Man is said to be a compound of soul and body. However proper this language may be in religion, it is not so in medicine. He is, in the eye of a physician, a single and indivisible being, for so intimately united are his soul and body, that one cannot be moved, without the other."[21] The tenacity of the belief that the mind and the body are not separate entities, is once again affirmed here. There is also the direct reference to religion(perhaps also to the circumstances under which Descates elaborated his dualistic philosophy), and how its particular paradigm is not suitable for medicine which must grapple with the soul as well as the body.

The advent of cellular pathology by Virchow in the 1850s, along with other microbiological advances by Koch and Pasteur culminating in the "germ theory of disease," resulted in a silencing of the debate regarding mind/body dualism, and the healing that was a result of the minds influence over the body. This was largely due to the growing medical emphasis on the body, and a mechanistic approach to disease with a focus on specific causes. However, the debate over the reciprocity of the mind and

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20. Lipowski, Z. J., "What does the word 'psychosomatic' really mean? A historical and semantic inquiry," *Psychosomatic Med.* 46:153-71, 1984.
21. Rush B, *Sixteen Introductory Lectures.* Philadelphia, Bradforn and Innskeep, 1811.

body was not dead. For example, in 1833, the seminal study of the effect of emotions on gastric acid secretions was performed by Beaumont. He was able to substantiate the claim that emotional states can be responsible for physiological changes.

At the end of the 19th century, Sir William Osler is noted as saying that "in the medicine of the future the interdependence of mind and body will be more fully recognized, and that the influence of the one over the other may be exerted in a manner which is not now thought possible."[22] Just a year after Osler's speech, Hughes stated that "We are approaching an era when the whole patient is to be treated, no more only a part or organ solely...In estimating the causal concomitants and sequences of his diseases, we consider the whole man in his psycho-neuro-physical relations."[23]

Although Oliver Wendell Holmes criticizes homeopathy in his lecture on "Homeopathy and its Kindred Delusions" in 1842, he nevertheless maintains "how patients can benefit through the influence exerted upon their imaginations," and how they, "all display in superfluous abundance the boundless credulity and excitability of mankind upon subjects connected with medicine."[24] He examines these phenomena in order to illustrate the ease with which numerous facts are accumulated to prove the most fanciful and senseless extravagances, and the inefficiency and incompetency of persons without medical knowledge despite wisdom, honesty, and accomplishment. He is cognizant of the role of spontaneous remission in the natural course of disease, citing a figure of 90 percent

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22. Lipowski, Z. J., "What does the word 'psychosomatic' really mean? A historical and semantic inquiry," *Psychosomatic Med.* 46:153-71, 1984.
23. Ibid.
24. Shapiro, A. K., "A contribution to a history of the placebo effect,"*Behavioral Science* 5:109-35, 1960

recovery in patients seen in general practice, "provided nothing were done to interfere with the efforts of nature."[25]

William Osler was a therapeutic nihilist who battled the irrational polypharmacy of his day. When discussing "psychical methods of cure, in which faith in something is suggested to the patient," he approvingly quotes Galen as saying, "he cures most in whom most are confident," and Paracelsus encouraging his patients "to have a good faith, a strong imagination, and they shall find the effects." Osler continues:

> "Faith in the gods or in the saints cures one, faith in little pills another, hypnotic suggestion a third, faith in a plain common doctor a fourth...Faith in us, faith in our drugs and methods,is the great stock in trade of the profession...the touchstone of success in medicine...and must be considered in discussing the foundation of therapeutics...a most precious commodity, without which we should be very badly off.' He points out that doctors do not enjoy 'monopoly in the faith business,' and that, 'While we doctors often overlook or are ignorant of our own faith-cures, we are just a wee bit too sensitive about those performed outside our ranks."[26]

I have considered several historical examples of holistic health and psychosomatic medicine which bear on the early understanding of the placebo effect. In addition, there were also more specific references to the administration of placebos, along with their mechanisms of action. In 1628, Robert Burton noted that "an empiric oftentimes, and a silly chirurgeon, doth more strange cures than a rational physician...because the patient puts his confidence in him."[27] In 1785 Benjamin Franklin concluded that the subject's *imagination* was the most important factor in explaining the miraculous cures attributed to Mesmer's animal

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25. Ibid.
26. Ibid.
27. Brody, Howard, "The lie that heals: the ethics of giving placebos," *Annals of Internal Medicine* 97: 112-118 1982

magnetism. The importance of imagination and confidence in the physician are recurrent themes in the efficacy of the placebo effect. Thomas Jefferson wrote to Dr. Casper Wistar in 1807, "One of the most successful physicians I have ever known, has assured me, that he used more of bread pills, drops of colored water, and powders of hickory ashes, that of all other medicines put together."[28]

In *Medicine, Magic, and Religion*, Rivers discusses indirectly the components and importance of the placebo effect. He says:

> "The action of suggestion can never be excluded in any form of medical treatment, whether it be explicitly designed to act upon the mind or whether ostensibly it is purely physical in character...If we confine our attention to our own culture, it is only within the first fifty or sixty years that there has been any clear recognition of the vast importance of the mental factor in the production and treatment of disease, and even now this knowledge is far from being fully recognized either by the medical profession or the laity. ....Though remedies acting through the mind were probably the earliest to be employed by Man, the knowledge that the remedies act in this way is one of the most recent acquirements of medicine...Few can now be found who will deny that the success which attended the complex prescriptions, and most of the dietetic remedies of the last generation, was due mainly, if not entirely, to the play of faith and suggestion. The salient feature of the medicine of today is that these psychical factors are no longer allowed to play their part unwittingly, but are by themselves becoming the subject of study, so that the present age is seeing the growth of a rational system of psychotherapeutics."[29]

There have been several empirical studies which analyzed the use of placebos both in the public and professional sector. In 1938, the U.S. spent 10% of its medical expenses on vitamins(which would be considered impure placebos). Dunlap, Henderson, and Inch analyzed over 17,000 prescriptions

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28. Ibid.
29. Shapiro, A. K., "A contribution to a history of the placebo effect,"*Behavioral Science* 5:109-35, 1960

of physicians from representative areas in Great Britain for a nine month period in 1952. They found that one third were in the placebo category.[30]

It is not surprising that the emergence of physiologically sound cures ushered in a new age for physicians. Although always allying themselves with science, they were rarely able to reap its benefits for their clinical therapies. It may be argued that physicians' cultural authority began to increase on the coat tails of science. This major shift had many repercussions within the medical field. Physicians were likened to scientists, and their role as healers in the traditional sense was diminished. The physician himself was no longer the essential healing agent; science had supplanted him. However, as DuBois points out:

> "You cannot write a prescription without the element of the placebo. A prayer to Jupiter starts the prescription, and it carries the weight of two or three thousand years of medicine. The prescription is written by the doctor, and although the Latin of the past is disappearing, the polysyllabic names remain. It is then taken to special stores to be filled by specially trained men and is frequently expensive. Any treatment procedure, including all medication, even potent and pharmacologically effective medicines, have potential placebo effects inherent within them."[31]

The rapid rise in pharmacologically active and clinically useful drugs in the past century, led to the need to determine their efficacy. It was only when medicine had an armamentarium of potent and specific drugs that the medical community was able to investigate the placebo effect with confidence. The placebo effect became a legitimate topic of inquiry after placebos became an integral part of the double-blind clinical trial in the 1940s. Although they became a topic of inquiry, they were looked upon with disdain. By recognizing the potency of the placebo effect, they began to find

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30. Ibid.
31. Ibid.

a way to control for it. Although placebos were effective for many illnesses, they were often used to denote lack of efficacy. As early as 1946, the place of placebos in therapy was addressed in the Cornell Conference on Therapy. DuBois commented that "although scarcely mentioned in the literature, placebos are more used that any other class of drugs."[32] This truth notwithstanding, they were professionally sanctioned in the double-blind context alone.

The importance of the double-blind clinical trial to the history of the placebo effect will be analyzed. "Since the pioneering work of the great British medical statistician Sir Austin Bradford Hill, the double-blind clinical trial has become the standard scientific procedure in biomedical pharmacology."[33] It revolutionized the pharmacological industry, and provided the best method to test the efficacy of any drug.

There are several requirements for a randomized, double-blind clinical trial involving placebos. The drug or treatment being tested is compared to the placebo group, which represents a control group for which there is no "active" intervention. The subjects, who signed the informed consent agreement, know they have an equal chance of getting the treatment or placebo as any other subject. To further eliminate bias in the study design, physicians or investigators (in addition to the subjects) are unaware of who is in the treatment or placebo group; hence the name double-blind. The study design eliminates several potential biases and confounding variables. First, by randomly assigning the placebo groups, it eliminates selection

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32. Beecher, H. K., "The powerful placebo," *JAMA* 159:1602-06, 1955
33. Moerman, Daniel E. "General medical effectiveness and human biology: placebo effects in the treatment of ulcer disease," *Medical Anthropology Quarterly*. August 1983; 14 (4).

bias. Secondly, the double-blind feature eliminates any observational bias and differential treatment bias.

Although the double-blind clinical trail described above emerged in the 1940s, there were less sophisticaed version earlier which used the placebo as a control. In 1908, Rivers conducted a study on "The influence of alcohol and other drugs on fatigue" in which inert material(which tasted and appeared like the drug) was used as a control. The subjects did not know which substance they were receiving. This was probably the first experiment where placebos(not referred to as such in this study) were used as controls.

Beecher draws several conclusions from these studies in his seminal 1955 paper "The powerful placebo." He asserts that "the placebo effect of active drugs is masked by their active effects."[34] He concludes from his studies that "placebos have a high degree of therapeutic effectiveness in treating subjective responses, decided improvement, interpreted under the unknown technique as a real therapeutic effect, being produced in 35.2 +/- 2.2% of cases."[35] These particular values of the therapeutic effectiveness of the placebo are a commonplace in the literature.

Although the "placebo effect" was recognized to be operative, hence a significant component of the healing process, it was relegated to the unimportant realm of background noise. It was a nuisance that prevented the establishment of a drug's "true efficacy." Moerman asserts that there are several assumptions underlying the placebo effect that are not adequately addressed.

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34. Beecher, H. K., "The powerful placebo," *JAMA* 159:1602-06, 1955
35. Ibid.

> "The first assumption is that placebo effects are generally thought to be constant. For instance, those writing about placebo effectiveness seem inevitably to cite Beecher's (1955) report that 'placebos are found to have an average significant effectiveness of 35.2+- 2.2%.' Beecher meant to indicate by this the magnitude of such effectiveness; his purpose was enhanced by his report of the mean and standard error. Yet this line is usually cited to indicate the *invariance of placebo effects*, even though placebo relief of pain in the 26 separate trials Beecher reviewed ranged from 15% to 58%, yielding a mean of 35.9% with a standard deviation of 9.9%(emphasis added)."[36]

This overview of the historical development of the concept of the placebo effect provides a context for understanding the concept today. It was instructive to deal with the placebo effect in broad terms (symbolic healing) for this particular section. From the time of Hippocrates there was an understanding of the central issues involved in the placebo effect; the interaction between the mind and the body, the importance of faith, hope, and suggestion, and the importance of the physician patient relashionship in healing. The concept of placebo became more important and well defined as pharmacologically active drugs became available. This development led to the emergence of the double-blind clinical trial which was a turning point in the history of the placebo effect in this century.

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36. Moerman, Daniel E. "General medical effectiveness and human biology: placebo effects in the treatment of ulcer disease," *Medical Anthropology Quarterly*. August 1983; 14 (4).

Chapter Three

How the Placebo Effect Contributes to Healing

I. Illness vs Disease

The distinction between disease and illness is crucial for understanding the placebo effect, and its potential benefits. I will define both concepts, and explore the ways that they interact. I will show that the placebo effect has its most powerful effect on the illness component of sickness.

Disease is a familiar term in the medical milieu, being defined and used operationally within the medical paradigm. Disease is defined in biological terms and can be understood in an "objective," "scientific" fashion. Disease in its pure sense is not a normative concept; it does not vary in different cultural contexts. Boorse states:

> "The physician as theoretician speaks of diseases, lesions, organs, functions, and the like: in his social capacity he speaks instead of illness, suffering, incapacitation, recovery, and the like. Statements made in this second vocabulary do typically have an evaluative component; but I believe statements made in the first do not."[37]

To define disease, one has to have a conception of normalcy. Since the human body has changed little over centuries, there is a body of knowledge and belief about what constitutes normalcy in physiological terms. Disease is an impairment of the structure and or function of body tissue or system. It follows that the pathologist is the ultimate classifier of disease since he actually sees the pathology in the tissues or cells.

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37. Margulis, J., "The concept of disease," J. *Med. Phil.* 1: 238-55, 1976

In contrast, illness is defined as the manifestation of sickness which affects the patient as a person. "Life experiences - previous illness, experiences with doctors, hospitals, and medications, deformities and disabilities, pleasures and successes, miseries and failures - all form the nexus for illness."[38] The socially constructed aspect of illness provides a medium to communicate ones predicament and elicit help and support. It also determines, to some extent, how a person understands and subsequently deals with his disease. "Once an episode of illness develops, the individual's folk knowledge and the group's medical taxonomy come into play. These cultural traits give the illness meaning, organization and direction-in the sense that group activities become rational and coordinated."[39]

With the concept of disease and illness defined, Eisenberg goes on to make the distinction between disease and illness. He believes that patients suffer illnesses, while doctors diagnose and treat diseases. He state that "illnesses are *experiences* of disvalued changes in states of being and in social function; diseases, in the scientific paradigm of modern medicine, are *abnormalities* in the *structure* and *function* of body organs and systems."[40] These differences are compounded by different explanatory models of sickness between the physician and the patient. They also reflect the tremendous gains that medicine has made by adhering to this paradigm. Medicine, by focusing on the narrow confines of disease, has made many advances which like a vicious cycle keep propelling medicine

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38. Cassel, E., "The nature of suffering and the goals of medicine," *New England Journal of Medicine* 306:639 (1982).
39. Fabrega, Horacio, "The scope of ethnomedical science," *Culture, Medicine and Psychiatry* (1977) 201-228
40. Eisenberg, L., "Disease and illness: Distinctions between professional and popular ideas of sickness," *Culture, Medicine, and Psychiatry* 1:9-23, 1977.

even deeper into these narrow confines. This reverence for technology and its wonders, has led to an estrangement from the other manifestations of biological impairment: the human, and social level.

This extreme polarization noted above should be tempered with a more complex assessment of what really goes on between a physician and the patient. Physicians do not focus exclusively on disease in the context of caring for the patient. Polanyi and Prosch note that "physicians combine 'tacit' models of illness with more or less explicit models of disease. If they were to be spelt out and deliberately set side by side, these tacit and explicit concepts would display logical incompatibilities. That they are held simultaneously indicates that clinicians mediate between medical models of disease and popular models of illness."[41]

There is the possibility that the illness experience can become more devastating that the disease itself. In *Illness as Metaphor,* Susan Sontag has eloquently called for a de-mythicizing of illness. She insists that the illness experience is appropriated by metaphors which are not only ill-suited, but detrimental to the individual. In the desire to find meaning in the illness experience, the danger exists for creating more pathology. She writes, "My point is that illness is *not* a metaphor, and that the most truthful way of regarding illness-and the healthiest way of being ill-is one most purified of, most resistant to, metaphoric thinking."[42]

As I have discussed previously, the mind/body dualism that informs medicine has important implications for the distinction between disease and illness. Although the earlier mechanical paradigm was later supplanted with a more sophisticated bio-medical paradigm, this latter

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41. Ibid.
42. Sontag, Susan, *Illness as Metaphor.* Farrar, Strau, an Giroux, New York. 1977

perspective still maintained the separation between the mind and the body. Although this paradigm allowed medicine to focus on the "body" with great therapeutic success, it also led to a diminished interest in the "mind" where the concept of person and the manifestations of illness are to be found. As Cassell writes, "so long as the mind-body dichotomy is accepted, suffering is either subjective and thus not truly 'real'-not within medicine's domain-or identified exclusively with bodily pain."[43]

These different conceptions about sickness reveal some interesting special cases. One can have a disease, but not experience an illness. Examples are hypertension, or mild type II diabetes mellitus in their early stages. Until these diseases cause symptoms, they will not restrict the function of the individual in their social and personal roles.

The more interesting case for our purposes is the presence of illness without disease. "Illness may occur in the absence of disease (50% of visits to the doctor are for complaints without an ascertainable biologic base)."[44] It is precisely this category of patients who are often dismissed as neurotics, malingerers, or hypochondriacs. Eisenberg points out the historical model of hysteria to prove this point. Oddly enough, hysteria did become labelled as a disease, albeit a functional one. Nevertheless, it is functional diseases which are given questionable legitimacy in the hierarchy of disease; they are somehow less real. Peabody discusses this particular situation in great detail. "A physician will carefully examine a patient, searching for organic pathology. When none is found, he will often be heard uttering 'nothing the matter with them,' or they may classify the

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43. Cassel, E., "The nature of suffering and the goals of medicine," *New England Journal of Medicine* 306:639 (1982).
44. Kleinman, A., Eisenberg, L., and Good, B., "Culture, illness, and care-clinical lessons from anthropologic and cross-cultural research," *Ann. Intern. Med.* 88:251-58, 1978.

patient as having a psychoneuroses." For these patients with functional disorders, who show no anatomic pathology, a placebo and reassurance is often used. However, it is precisely these patients who require the close attention of their physician, and appropriate psychosocial management. Even if there is an underlying psychiatric disorder, Peabody maintains that these patients should be treated by a competent internist.

The foregoing analysis has several implications for the placebo effect. Although the placebo effect can in some instances cure disease, its primary locus of action is the illness component of sickness. To acheive this, the physician must consider the illness form the patient's point of view. Furthermore, as I have mentioned above, the presence of illness without disease ia a widespread phenomenon. These particular patients would respond most favorably to psychosocial interventions and other forms of symbolic healing.

II. Symbolic Healing

The placebo effect properly belongs to the realm of symbolic healing; it exerts its power in the nebulous boundary between the mind and the body. As I have mentioned previously, the dualistic conception of Man still informs biomedicine. Without dealing with the exact mechanisms for this mediation, I will examine in broader terms what symbolic healing entails.

Before delving into the general aspects of symbolic healing, I shall examine the historical theories about disease causation and how they influenced notions about therapy. In the Western tradition of medicine, there have been two major conceptions of disease. The generalized or physiological conception(referring to forces within and outside the person, not to be confused with our current day more narrow definition) was embraced by the Hippocratic school, and by Galen whose influence lasted into the seventeenth century. The other view was, "the ontological conception of disease, which understands diseases to be *entities*, things that invade and are localized in parts of the body."[45] Cassell claims that this viewpoint was held by Paracelsus, but did not change the medical thinking until Sydenham challenged the Galenic model in the late 1600s. "The Countess of Chinchon is erroneously credited with introducing cinchona bark, which contains quinine, as a treatment for febrile infections in 1638. Sydenham, by demonstrating that it was specific only for fever of malarial origin, contributed to the end of Galenism and the beginning of scientific medicine. It may be considered that this was the first drug that was not a

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45. Cassell, Eric, J. "Ideas in conflict: The rise and fall(and rise and fall) of new views of disease," *Daedalus*. 115: 19-41. 1986

placebo."[46] In this context, scientific medicine refers to the emergence of the ontological perspective of disease which emphasized finding a specific etiological factor for a given disease which could then be cured with a specific therapy. However, as recently as 1860, Oliver Wendell Holmes said that nearly all the drugs then in use should be thrown "...into the sea where it would be the better for mankind, and all the worse for the fishes."[47]

It was not until the 19th century, with the advent of Virchow's cellular pathology and advances in microbiology, that this ontological view became entrenched in the medical paradigm. According to Cassell, despite the biomedical revolution in the last 50 years, the generalized or "ecological" conception of disease is in the ascendency. Although this model has not supplanted the ontological model, it has made progress. The support for this model stems from cross-cultural medical fieldwork, the recognition of the interdependence of the environment and the individual, and the growing recognition of the placebo effect. However, the ontological, or biomedical model, still pervades the medical milieu; it informs diagnosis, and treatment. Physicians still search for diseases and desire to know *the* etiologic agent, and treat with *the* therapy.

This notion of specific diseases that require specific treatment is called into question especially in the field of psychiatry. A study by Moerman reviewed over 100 other studies on the effectiveness of different psychotherapeutic techniques revealing little variation in the success rate among the different techniques. Jerome Frank delineated the factors that are present in most therapies: "an emotionally charged, confiding relationship; a therapeutic rationale that is accepted by the patient and

46. Shapiro, A. K., "A contribution to a history of the placebo effect,"*Behavioral Science* 5:109-35, 1960
47. Ibid.

therapist; the provision of new information; a strengthening of the patient's expectation of help; new success experiences; and the arousal of one's emotions."[48] In sum, he states that the combating of demoralization is the essential nonspecific element in psychotherapy. Certainly, all of these factors are placebogenic, and operate in any therapeutic encounter. These examples, drawn from the field of psychiatry, seriously call into question the ontological conception of disease. With a greater acceptance of the generalized or ecological conception of disease, the placebo effect would be treated more seriously as a therapeutic modality. However, the ontological conception of disease is certainly defended more forcefully in most areas of medicine, and while it does not adequately account for all aspects of disease causation and treatment, it is extremely resilient.

Placebo healing is often not taken seriously because it is viewed differently from pharmacological healing. The distinction stems from an archaic mind-body dualism, where the functional relation between the mind and the body is never adequately addressed or understood. Pharmacological healing, which usually has a theoretical mechanism of action, is mediated physiologically, and in some sense is "real." On the other hand, the placebo effect, is medicated psychologically and in some nonspecific manner, which is less tangible, quantifiable, and measurable.

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48. Karasu, Toksoz. "The specificity versus nonspecificity dilemma: Toward identifying therapeutic change agent," *Am. J. Psychiatry* 143:6, June 1986

Chapter Four

The Physician's Role in the Placebo Effect.

I. The Physician/Patient Relationship

It is generally agreed that the physician-patient relationship is necessary and fundamentally involved in the causation of the placebo effect. Brody, discusses the actual components of the placebo effect in the physician-patient interaction which contribute to healing.

> "That this sort of healing includes actual bodily change and is not restricted to the patient's subjective impressions has been well documented in the medical literature on placebos. The notion of a 'positive change in the meaning the patient attaches to the illness experience' can in turn be broken down into three distinguishable but closely related components. First, the illness experience must be given an explanation of the sort that will be viewed as acceptable, given the patient's existing belief system and worldview. Second, the patient must perceive that he or she is surrounded by and may rely upon a group of caring individuals. Third, the patient must achieve a sense of mastery or control over the illness experience, either by feeling personally powerful enough to affect the course of events for the better or by feeling that his or her individual powerlessness can be compensated for by the power of some member or members of the caring group such as the physician."[49]

The first point here concerns the establishment of an acceptable explanatory model for the patient. Since the physician is operating within the confines of the biomedical model when he diagnoses and treats diseases, he may have difficulty providing an explanatory model that is acceptable to the patient. Furthermore, the physician must address the broader aspects of the illness, which usually has a great deal of

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49. Brody, Howard, "Does disease have a natural history?" *Medical Anthropology Quarterly*. August 1983; 14 (4).

significance for the patient. Treating the illness involves psychosocial management, which physicians are usually ill-trained to deliver.

The physician-patient relationship serves the purpose of educating patients about health care. Chrisman states that "a significant source of medical information is the health professional from whom care is received."[50] It is the responsibility of the physician to discuss medical matters with an appropriate explanatory model that empowers patients to assume responsibility for their health. "For many chronic medical problems, patient's reported improvement may be greater after encounters with marginal or folk practitioners than with modern physicians."[51] Kleinman attributes this to a smaller social class difference between the healer and patient, and more importantly a greater focus on the explanatory model of sickness which is more congruent between healer and patient.

I have discussed the tendency of physicians to treat diseases, while their patient is experiencing an illness. This approach is often efficacious since the illness is a result of a disease, and when the disease is eradicated, the illness vanishes. This type of reasoning which informs the medical approach all too often is misleading. During the sickness episode, the illness component is often paramount for the patient and only secondary for the physician. Thus, the patients' needs are not adequately being addressed. However, it is clear that addressing the illness in addition to the disease yields an efficacious placebo effect which is beneficial to both. The results of inattention to illness are delineated by Kleinman: "The systematic

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50. Chrisman, N. J., "The health seeking process: An approach to the natural history of illness," *Culture, Medicine and Psychiatry* 351-377. 1977
51. Kleinman, A., Eisenberg, L., and Good, B., "Culture, illness, and care-clinical lessons from anthropologic and cross-cultural research," *Ann. Intern. Med.* 88:251-58, 1978.

inattention to illness is in part responsible for patient noncompliance, patient and family dissatisfaction with professional health care, and inadequate clinical care."[52] Moreover, Adler points out that the vast majority of cases seen by a primary care physician are functional disorders, which would respond favorably to the placebo effect.

Some scientifically minded physicians may see themselves as merely conduits for the effects of modern medicine. As scientists, they want to deal with the "objective," the "tangible," and the "visible." However, as Leslie points out, "It is hard for a doctor to avoid being part actor no matter how he may try."[53] In addition, this approach to medicine has never been advocated, although it is often practiced. In his classic 1927 paper, "The care of the patient," Peabody is emphatic when he states, "The treatment of a disease may be entirely impersonal; the care of a patient must be completely personal."[54]

An essential aspect of any therapy is patient adherence to the treatment plan, otherwise known as "compliance." There have been several studies that looked for the factors responsible for adherence. Marston "found that when demographic variables were examined separately, little or no association was found between compliance behavior and sex, age, race, marital status, socioeconomic status, or education."[55] However, in a different study, Svarstad concludes that the quality of the doctor-patient

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52. Ibid.
53. Leslie, A., "Ethics and practice of placebo therapy," *Amer. J. Med.* 16:854-62, 1954
54. Peabody, F., "The care of the patient," *Journal of the American Medical Association* 877 (1927).
55. Chrisman, N. J., "The health seeking process: An approach to the natural history of illness," *Culture, Medicine and Psychiatry* 351-377. 1977

communications, although subjective and difficult to assess, was the most important factor.[56]

Osler discussed the various types of faith healing that were popular in 1910, with special reference to the physician/patient relationship. Although he never reduced the success of medicine to faith in the physician, he did agree that it was an essential aspect of healing. Regarding the physician-patient relationship, he quotes Burton who said: "The patient must have a sure hope in his physician. Camascen, the Arabian, requires likewise in the physician himself that he be confident he can cure him, otherwise his physic will not be effectual, and promise withal that he will certainly help him, make him believe so at least."[57] A number of studies indicate the important role of the physician in eliciting the placebo effect. For example, "when meprobamate, phenobarbital, and placebo were administered blindly to anxious patients, the two pharmacologically active drugs were clearly superior to placebo when administered by a physician who had confidence in the drugs' efficacy and who was viewed by the subjects as supportive; the drugs and placebo showed no difference when administered by a less supportive and more skeptical physician. Subjects of the first physician also showed more overall symptom relief."[58]

Although the role of the physician is important in eliciting the placebo effect, it is also a testament to the inherent natural healing potential of individuals. Although this is usually accomplished in the context of the physician-patient relationship through symbolic intervention, its active source is found in the individual. As Dr. Schweitzer said to Norman

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56. Ibid.
57. Osler, W., "The faith that heals," *Brit. Med. J.* 1:1470-72, 1910
58. Brody, Howard, "The lie that heals: the ethics of giving placebos," *Annals of Internal Medicine* 97: 112-118 1982

Cousins, "the witch doctor succeeds for the same reason all the rest of us succeed. Each patient carries his own doctor inside him. They come to us not knowing that truth. We are at our best when we give the doctor who resides within each patient a chance to go to work."[59]

59. Cousins, Norman. *Anatomy of an Illness as Perceived by the Patient: Reflections on Healing and Regeneration.* W. W. Norton and Company, Inc. New York, 1979.

II. Physician Authority

As we have mentioned, physicians have exploited the placebo effect for thousands of years. With the status of healer in society, physicians were able to exercise their authority to benefit the patient. "Their skill was a skill in dealing with the emotions of men. They themselves were the therapeutic agents by which cures were effected. Their therapeutic procedures, whether they were inert or whether they were dangerous, were placebos, symbols by which their patients' faith and their own was sustained."[60]

The exponential rise of scientific knowledge applicable to medicine in the 1800's, began to separate physicians from other healers. Their monopoly of this knowledge was essential in establishing their superior competence, and cultural authority as preeminent healers. The close alliance with science afforded them the distinction of possessing "objective truth," and thus the distinction of physicians as scientist. However, as Shryock points out, "in the middle of the 19th century, science had nearly destroyed the reputability of medicine by demonstrating that its cures were worthless, but it was unable to substitute more effective remedies. Medicine became simply one of a wide variety of healing cults and quackery."[61] Medicine managed to escape this predicament by allying itself close to science.

The importance of projecting this scientific image cannot be overestimated. Science has certainly captured the imagination of the

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60. Houston, R., "The doctor himself as a therapeutic agent," *Annals of Internal Medicine* 1415 (1938), p. 1418
61. Shryock, Richard. *The Development of Modern Medicine: An Interpretation of the Social and Scientific Factors Involved.* New York:Alfred A. Knopf, 1947.

public, which esteems it most highly. Physicians seized the initiative among healers, and established ties to science for a dual purpose; it held the methods of acquiring "truth" about the physical world, and by extension about human disease, and it amounted to a great deal of legitimacy for the profession. Cathell, whose book *The Physician Himself* went through many editions between 1882 and 1922, advised:

> "Show aesthetic cultivation in your office arrangement, and make it look fresh, neat, clean and scientific. Above all, one must avoid forcing on everybody the conclusion that you are, after all, but an ordinary person.' By 1922, Cathell had become more emphatic in describing 'the office, the sanctuary-of an earnest, working scientific medical man...' as the place where one will make 'judicious and intelligent use of your scientific instrument of precision...to assist you in curing nervous and terrified people by increasing their confidence in your armamentarium and in your professional ability."[62]

Along similar lines, the Flexner Report of 1910, was ostensibly issued to standardize a high quality of medical education that was structured around laboratory science. This furthered the identification of physicians as scientists, who are capable of dealing efficiently with disease.

> "Towards the end of this radical transformation of the profession of medicine, and as a reflection of it, physicians became stereotyped as scientists wearing white coats. The message of power and protection emerge: While wearing a white coat the physician is able to handle safely the deadly scourges that plague mankind and is able to render them innocuous."[63]

It would be simplistic to conclude that the physicians' cultural authority developed and continues to flourish (albeit with much greater scrutiny) solely due to their knowledge and competence derived from science. Paul

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62. Blumhagen, Dan W, "The doctor's white coat: The image of the physician in modern america," *Annals of Internal Medicine.* 1979; 91: 111-116.
63. Ibid.

Starr has analyzed the rise of the medical profession in America in *The Social Transformation of American Medicine*. He argues that physicians' cultural authority, social status, political power, and economic strength were systematically developed by their active involvement in all conceivable aspects of medicine; political, social, cultural, and economic. Drawing on Starr's book, I will examine the authority structure that constructs the physician/patient relationship, and subsequently glean from this its implications for the placebo effect.

Starr discusses the social transformation that facilitated the rise of physicians in the late 1800's.

> "There were profound changes in Americans' way of life and forms of consciousness that made them more dependent upon professional authority and more willing to accept it as legitimate. Different ways of life make different demands upon people and endow them with different types of competence. In preindustrial America, rural and small-town communities endowed their members with a wide range of skills and self-confidence in dealing with their own needs. The division of labor was not highly developed, and there was a strong orientation toward self-reliance, grounded in religious and political ideals. Under these conditions, professional authority could make few inroads. Americans were accustomed to dealing with most problems of illness within their own family or local community, with only occasional intervention by physicians. But toward the end of the nineteenth century, as their society became more urban, Americans became more accustomed to relying on the specialized skills of strangers. Professionals became less expensive to consult as telephones and mechanized transportation reduced the cost of time and travel. Bolstered by genuine advances in science and technology, the claims of the professions to competent authority became more plausible, even when they were not yet objectively true; for science worked even greater changes on the imagination than it worked on the processes of disease. Technological change was revolutionizing daily life; it seemed entirely plausible to believe that science would do the same for healing, and eventually it did. Besides, once people began to regard science as a superior and legitimately complex way of explaining and controlling reality , they wanted physicians'

> interpretations of experience regardless of whether the doctors had remedies to offer."[64]

There are several other facets of physician's power, which impinge on the patient. As Starr points out, power originates in dependency, and the power of professions originates in their superior knowledge and competence.

> "Physicians offer a kind of individualized objectivity, a personal relationship as well as authoritative counsel. The very circumstances of sickness promote acceptance of their judgment. Often in pain, fearful of death, the sick have a special thirst for reassurance and vulnerability to belief. The therapeutic definition of the profession's role also encourages its acceptance.' However, 'in clinical relations, this authority is often essential for the therapeutic process. The sick are ordinarily not the best judge of their own needs, nor are those who are emotionally close to them. Quite aside from specialized knowledge, professionals possess an advantage in judgment."[65]

The role of the physician in eliciting the placebo effect is crucial. The importance of the beliefs and expectations of the physician is clear when new treatments are developed. Parsons contended that there is an "optimistic bias" that accompanies new medical advances, and is important in its acceptance by the profession and the public. This process is clearly delineated by Benson in his article, "Angina pectoris and the placebo effect." He discusses the various therapies for angina including, xanthines, khellin, vitamin E, ligation of the internal mammary artery, and implantation of the internal mammary artery. He concludes from an analysis of these therapies, that "the initial 70 to 90 per cent effectiveness in the enthusiasts' reports decreases to 30 to 40 per cent 'base-line' placebo

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64. Starr, P. *The Social Transformation of American Medicine*. Basic Books Inc. New York, 1982
65. Ibid.

effectiveness in the skeptics' reports."[66] Although the physiological basis for these treatments was always speculative and uncertain, their application coupled with physician optimism and certainty indicated that something active and real was being done for the patient.

These various aspects of physician's authority are integral to eliciting the placebo effect. I do not mean to imply that a physician must be somehow superior to a patient. In fact, my discussion of the physican/patient relationship states the importance of equality and understanding between a physician and patient. However, in their professional role, physicians do possess a legitimate authority which stems from their superior knowledge and competence. The patient's belief in his physician's ability to heal him, is important in eliciting the placebo effect.

66. Benson, H., and Moore, M.J., "Angina pectoris and the placebo effect," *NEJM*, June, 21 P.1424-1429, 1979 With regard to the efficacy of the ligation of the internal mammary artery, Benson cites the two double blind studies performed by Dimond in 1958, and Cobb in 1959. In both studies patients were randomly selected to have the ligation operation, or simply skin incisions. Their results indicated that the operation was no more efficacious than a simple skin incision. While the ethics in these cases is unacceptable, it did prove the efficacy of placebo surgery.

I. Medical Uncertainty

There is evidence to suggest that medical uncertainty, along with its effects on physicians and patients, is a factor predisposing the physician to use placebos. The problems that surround medical uncertainty, however, go deeper and may even lead to the creation of illness. First, we will examine how medical uncertainty is dealt with, and then examine these implications for the use of placebos.

Renee Fox states the three basic types of uncertainty in medicine:

> "The first results from incomplete or imperfect mastery of available knowledge. No one can have at his command all skills and all knowledge of the lore of medicine. The second depends upon limitations in current medical knowledge. There are innumerable questions to which no physician, however well trained, can as yet provide answers. A third source of uncertainty derives from the first two. This consists of difficulty in distinguishing between personal ignorance or ineptitude and the limitations of present medical knowledge."[67]

When physicians are faced with a patient with a difficult diagnosis, they can make two possible errors; they may reject a hypothesis that is true, or accept a false diagnosis. These types of errors are known in statistical parlance as type I, and type II errors, respectively. Thomas Scheff argues that the pervasive norm with regard to type I and type II errors is, "When in doubt, continue to suspect illness."[68] Thus, it is considered desirable to

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67. Fox, R., "The evolution of medical uncertaintly," *Milbank Memorial Fund Quarterly* 1 (1980), pp. 7-8
68. Scheff, T., "Decision rules,: Types of error and their consequences in medical diagnosis," *Behavioral Science* 97 (1963). Scheff goes on to cite Neyman who discusses the X-ray screening for tuberculosis. He states that it is generally acceptable to suspect the diagnosis of sickness in a well person[type II error] and take X-rays putting them through some discomfort until the diagnosis can be ruled out. However it is unacceptable to judge a sick person well[type I error], because they will have missed the opportunity to catch the disease early when treatment is most efficacious, and will lead to an awful reputation for the clinic. These observations are born out in two studies. (1) Garland found that in 14,867 chest X-ray films, there were 1,216 positive readings for tuberculosis which turned out to be

err on the side of overdiagnosis, and commit a type II error(diagnosing a well person sick), rather than committing a type I error(diagnosing a sick person well). The potential problems with this perspective are delineated by Peabody, "You will find that physicians, by wrong diagnoses and ill considered statements, are responsible for many a wrecked life, and you will discover that it is much easier to make a wrong diagnosis than it is to unmake one."[69]

The preference of type II error over type I error is attributable to many causes. Physicians are taught in medical school to consider all possible disease states that present with a given history, and physical findings. The possible choices are collectively known as the "differential diagnosis." Further diagnostic and laboratory studies may be needed to "rule out" possibilities. While invasiveness and discomfort to the patient are avoided, additional tests are taken for a variety of reasons which vary with individual physicians. However, some commonalties do exist. Further tests will usually be performed for the following medical reasons: (1) the exact diagnosis is essential for a specific treatment, (2) there is a possibility of finding a serious condition, and (3) the patient wants to know the exact diagnosis to relieve any anxiety about potential diseases. In addition, Scheff maintains that physicians usually view disease in a deterministic manner which implies that without diagnosis and treatment, it will endanger the individual and possibly others if it is contagious. Furthermore, he states

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negative, but only 24 negative readings which turned out to be positive. (2) Bakwin studied physician's clinical acumen by presenting them with a group of 1,000 children, and asked how many needed tonsillectomies. The 389 not selected for the procedure were then examined by another group of physicians and 174 were then selected for tonsillectomy. He continued this procedure several times, and found that approximately half of each group was selected. In both of these studies, the type II error was much greater than the type I error.

69. Peabody, F., "The care of the patient," *Journal of the American Medical Association* 877 (1927).

that "a physician's usual working assumption is that medical observation and diagnosis, in itself, is neutral and innocuous, relative to the dangers resulting from disease."[70] This amounts to a kind of risk benefit analysis keeping the best interests of the patient in mind. Furthermore, there is strong peer disapproval of type I errors, indicating incompetence. Thus, within the medical profession, type II errors are to some extent entrenched in the medical paradigm.

We are certainly living in a period where the cult of technology flourishes. In the medical context this manifests itself in the patients' desire for a magic cure to all their ailments, or at least an attempt to do something active(often with the use of placebos). Although medicine certainly cannot fulfill this request, it can more often provide a definitive diagnosis. Public sentiment is much stronger against type I errors than against type II errors. Medicine has increased expectations in terms of diagnosis, treatment, and well-being among physicians and patients. Within the profession this revolution has also heightened the realities of uncertainty. However, the advances have just the opposite effect on the public; there is little tolerance of uncertainty.

There is the danger of losing perspective on the nature of uncertainty. Fox points out that although the preoccupation with medical uncertainty

> "encompasses a wide spectrum of health-, illness-, and medicine-associated matters, these uncertainty concerns have been especially focused on matters pertaining to molecular biology, genetics, and human reproduction; the transplantation and implantation of tissues, organs, and organisms; the use of chemicals and nuclear energy; and both innate and environmental factors that might play a

70. Ibid. Scheff does provide some qualifications to these two generalizations. He then supports his argument with the examples form the psychiatric field where indeed type II errors are often worse than type I errors.

role in the development of birth defects, genetic mutations, and cancer."[71]

The preference of type II error over type I error is also firmly rooted in the legal system. It behooves the physician to perform as many tests as possible and exclude all possible diagnoses to account for himself should he encounter legal proceeding against him. Although extreme forms of type II errors(such as unnecessary surgery) can be termed malpractice, they are usually not as severe as type I errors.

In this context, the role of the placebo prescriber must also be analyzed. There has been a great deal written about the placebo reactor, and the quest for finding the determinants of the placebo personality. This line of inquiry has led to a dead end; there were no specific characteristics that reliably correlate with the persons who respond to placebos. We shall examine instead the role of medical uncertainty in motivating the *physician* to prescribe placebos.

Jean Camaroff studied 51 physicians in a South Wales town, to determine their attitudes towards prescribing placebos. There were several generalizations that can be made from the study which substantiate data gathered from other sources. There was a perception that patients expected a prescription after their visit; in this situation the placebo was simply viewed as a means to please the patient. The placebo ritual also reaffirmed the physiscian's role as healers, and at least was a tangible way to do something for the patient, and show concern.

Prescription demand by the patient was used as a major rationalization for prescribing placebos. The type of placebo used varied. There was a

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71. Fox, R., "The evolution of medical uncertaintly," *Milbank Memorial Fund Quarterly* 1 (1980), pp. 7-8

sense that impure placebos were more acceptable or legitimate because they at least had some pharmacological activity; it somehow gave the illusion that at least something specific was used. When pure placebos were used, there was a feeling of ambivalence because the treatment did not have a specific effect. The necessity of this belief stems from the medical ideal that a specific treatment exists for most ailments. Comaroff states that "the more the doctor viewed medical practice as a scientific exercise, the more disparaging he was about placebo therapy."[72] These physicians did put what they considered clinical reality above professional ideals and prescribe placebos on occasion, but with a bad conscience for failing in the scientific approach. In other words, they were reconciling their professional norms to meet the expectations of their patients. In this particular study, there seemed to be a profound ignorance on the part of physicians about the many techniques for eliciting a placebo effect.

Although there is a great deal of complexity in the scientific paradigm of medicine, there exists the entrenched notion of specificity in diagnosis and treatment(the ontological perspective). The uncertainties inherent in the corpus of medical knowledge and in clinical practice are not readily acknowledged by physicians. In order to maintain the ideal, Comaroff states that "doctors employ the placebo concept in order to demarcate the morally equivocal margin between valid medical treatment and quackery."[73] Thus, placebos are prescribed begrudgingly to please patients who are not "really ill" and do not require specific treatment.

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72. Camaroff, Jean, "A bitter pill to swallow: Placebo therapy in general practice.," *Sociological Review*. February 1976; 24 (1).
73. Ibid

By prescribing placebos, the physician is implicitly diagnosing illness and providing a cure. With regard to type II errors we spoke about earlier, one physician in Comaroff's study was most revealing:

> "It worries me a bit. Some of my patients come with no real symptoms-I call it 'non-disease.' They come in because they get some sort of reassurance sitting out there, being called over the tannoy system, coming in here towards the throne, sitting here for a while and receiving some token for coming. If they are elderly, or not very bright, to explain to them that the medicine that you are giving them is not really doing anything and that they are being given it because you don't think anything is wrong with them, would destroy them. So, as a matter of course, you diagnose and prescribe."[74]

This physician believes that diagnosing this patient with some disease, and therefore placing them in a sick role, is desirable. Furthermore, there is the implication that it may be insulting to the patient if the physician does not think that the patients symptoms constitute any category of disease. If the patient is presenting with symptoms, and is suffering, then clearly something is wrong.

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74. Ibid

Chapter Five

The Ethics of Giving Placebos

The primary ethical debate about giving placebos focuses on the traditional definition of placebos. In this definition, placebos are any therapeutic procedure(giving a pill, a shot, or performing a surgical procedure) that has no specific effect on the condition being treated. In the first part of our discussion, we will refer to the placebo as a pill, although a shot or surgical procedure could be substituted in the analysis. Although our discussion will focus on this important aspect of placebos, it will also examine the reconceptualization of the placebo effect and how it can be used effectively and ethically.

When a physician prescribes a placebo, several conditions must hold. "They depend upon the beliefs and expectations of the physician, the beliefs and expectations of the patient, and the physician-patient relationship."[75] The patient has to be convinced that the drug is efficacious. As we have seen, this confidence stems from the physicians attitude toward the therapy, and the patient's belief in medicine which is culturally constructed. The patients believe that the drug has a biological activity that is specific for or at least helpful to their condition. This efficacy is presumed to be independent of any symbolic healing. Although patients see physicians for a myriad of reasons, including psychosocial, they certainly want "objective" therapy which is culturally the hallmark of modern medicine. The great rise in efficacious therapies in this century has lead to high expectations on the part of patients and physicians alike. Patients

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75. Benson, H., and Moore, M.J., "Angina pectoris and the placebo effect," *NEJM,* June, 21 P.1424-1429, 1979

expect some active intervention; physicians want to provide it. The Latin origin of placebo, meaning "I shall please," certainly resonates with many of its beneficent uses. Thus, when a physician knowingly prescribes a placebo, there must be some element of deception involved.

The ethics of placebos deal with the conflict between medical paternalism, and patient autonomy and integrity. There has always existed a paternalism in medicine, whose goal was to serve the best interest of the patient. Admittedly, this was often accomplished without the explicit informed consent of the patient, but at its best it was undertaken in good faith. In a given case, since the potential benefit seemed to outweigh the potential harm and since deception is essential for the placebo's efficacy, physicians saw little to object to ethically; at least this was their explicit stance in the literature.

Nevertheless, the aspect of deception in the use of placebos has become a serious ethical issue. There are, however, several levels or gradations of deception. At one end of the continuum, the physician may claim that the placebo is a pharmacologically active drug that is specific for the condition being treated. At the other end, a physician may simply claim that the drug has been helpful for other patients with similar problems, and that although it is safe, they are unaware of its exact mechanism of action. In this latter case, the issue of deception revolves around omission of information as opposed to commission of lying. Although everything that was said about the drug is true, the physician certainly omitted to share with the patient a central aspect of the drug which should be expected of him in this context.

While there is a great deal of writing about truth-telling in medical ethics, there is a silence(with a couple of exceptions) about the use of

placebos until the 1950s. In regard to truthfulness, Hippocrates said, "naught should be betrayed to the patient of what may happen or of what may eventually threaten him, because many patients have been driven in this way to extreme measure."[76] However, the deception involved in giving placebos has not been treated as a serious lie since it is intended to benefit the patient. Leslie pointed out that many physicians with whom he had spoken, believed that "placebos are not deception but merely one form of psychotherapy."[77] Jefferson said of the use of bread pills and drops of colored water in 1807, "It was certainly a pious fraud."[78] Although these were perhaps widespread beliefs among physicians, they have had no traditional ethical authority to consult regarding this practice.

The assertion that deception is admissible in this case because of beneficent intentions is questionable for several reasons. It is my contention that the literature on placebos, when confined to clinical practice, did not surface to some extent because of the questionable circumstances under which placebos where given. These included the hurried physician, embarrassing medical uncertainty, demanding patients, presumed hypochondriacs, and the fear of widespread publicity which would result in loss of trust in the medical profession, and in the loss of efficacy of placebos. If none of these contentions were true, this pervasive practice would have been more widely discussed.

Some writers contend, in a typically paternalistic fashion, that there would be no deception involved if there was a particular understanding

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76. Leslie, A., "Ethics and practice of placebo therapy," *Amer. J. Med.* 16:854-62, 1954
77. Ibid.
78. Brody, Howard, "The lie that heals: the ethics of giving placebos," *Annals of Internal Medicine* 97: 112-118 1982

between the patient and the physician. In this case, the patient explicitly makes a contract with his physician where they relinquish all of their autonomy as patients and defer all questions to the physicians best judgement. Thus, there would be a tacit assumption that the physician may employ any means necessary (including the use of deception in placebo administration) to benefit the patient. Indeed, an extremely trusting physician-patient relationship would have to exist for the patient to have such trust and surrender his autonomy; this seems to be a rare case. Furthermore, this strong form of paternalism is very questionable as an ideal physician-patient relationship, and the merits are dubious. The patient is deprived of all his autonomy, and along with it some measure of responsibility for his health.

As Veatch points out, the traditional physician ethics is centered around benefiting the patient. This is a kind of modified utilitarian stance, that weighs the benefits and harms only to the individual patient, instead of to all members of society. In addition, the second fundamental tenet of classical physician ethics is the injunction *primum non nocere* or "first of all do no harm" which is usually limited to the patient.[79]

Although Leslie concedes that administering placebos involves deception, he tries in vain to make a moral distinction between deception and deceit, the former being ethically admissible under special circumstances. He tries to buttress his arguments with reference to the traditional physician ethics. He notes that deception and deceit "are not synonymous since deceit implies blameworthiness whereas deception does not necessarily do so."[80] He maintains that deception is moral if it is used to

79. Veatch, Robert, M., *Case Studies in Medical Ethics.* Harvard University Press, Cambridge, Massachusetts, 1977
80. Leslie, A., "Ethics and practice of placebo therapy," *Amer. J. Med.* 16:854-62, 1954

benefit the patient. He is essentially stating that there is a higher good, the patient's welfare, that supersedes the importance of truth telling. He buttresses his argument with Plato, who in *The Republic* noted that "a lie is useful only as a medicine to men. The use of such medicines should be confined to physicians."[81] Furthermore, Parkinson reiterates the image of the physician as a paternalistic scientist who has latitude in truth telling: "the facts are that in clinical science there is devotion to truth and conformity to scientific standards as scrupulous as anywhere, but in practising the art truth has often to be softened."[82]

While Leslie recognizes the difficulty of deciding for another person what is best for them, and although he does not ascribe omniscience to physicians, he does fall back on the traditional paternalistic model of physicians who by virtue of their position and experience are in fact the best suited to determine the best interests of the patient. This argument has dubious merit being easily challenged with reference to patient autonomy, integrity, and the requirement of honesty in a fiduciary relationship. He proceeds to invoke the rather traditional and narrow conceptualization of the placebo which is a symbol for some active intervention and caring. He mentions that "the physician who in an appropriate situation refuses to order a placebo, implying in effect that, 'I can't help you because there is no medicine for your disease,' is cruel and is surely not to be praised for his morality."[83] The implicit assumption in this example is that the physician only has a pill at his disposal to help the patient. Explanation, understanding, and compassion could supplant the pill in this case, with better results; as we have seen, all of these factors are placebogenic.

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81. Ibid.
82. Ibid.
83. Ibid.

It is interesting that Soloman condones deception, while emphasizing the element of trust between the physician and the patient. He deifies the physician by attributing "mystical powers" to him, and then rationalizes the deception involved: "In the first place, if the patient sees the doctor for help and placebo safely supplies that help, there is little to criticize." He goes on in a contradictory statement to say: "Informed consent is another frequently raised issue. I believe that informed consent is obtained by including the patient in an intelligent discussion of the treatment regimen, and this can be done without spelling out the complete nature of the placebo. The goal is to cement the bond between physician and patient, increase trust and confidence in the doctor, and enable the placebo to help the patient."[84] Somehow the issue of deception is simply not addressed here.

We will now turn to a discussion of normative ethics, and review the literature for other ethical positions on the placebo use. The utilitarian or consequentialist position holds that acts are judged to be good or bad depending on the type of consequences they produce. In theory, this approach counts benefits and harms to all members of society in an equal fashion. However, maximizing utility and determining all possible benefits and harms is extremely difficult. In addition, what counts as a benefit or harm is value-laden itself.

In the utilitarian calculation of harms resulting from the use of placebos in therapy, the following factors must be accounted for: addiction, distrust of the medical profession, loss of patient autonomy and

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84. Solomon, Johathan, G. "Placebo revisited: An update on a very useful agent," *Consultant*, December 1982

responsibility for their health care, and the reinforcing view that drugs are the solution to all medical problems.

Richard C. Cabot argued in general for the value of truthfulness in medicine, on utilitarian grounds:

> "I am saying that a lie saves present pain at the expense of greater future pain, and that if we saw as clearly the future harm as we see the present good, we could not help seeing that the balance is on the side of harm. It is intellectual shortsightedness.' He goes further to criticize physicians for their instrumental role in perpetuating the use of placebos: 'The majority of placebos are given because we believe that patient will not be satisfied without them. He has learned to expect a medicine for every symptom, and without it he simply won't get well. True, but who taught him to expect a medicine for every symptom? He was not born with that expectation. He learned it from an ignorant doctor who really believed it, just as he learned that pimples are a disease of the blood, that shingles kills the patient whenever it extends clear round the body, and that in the spring the blood should be 'purified' by this or that remedy. It is we physicians who are responsible for perpetuating false ideas about disease and its cure.' His approach to the issue using placebos was experimental in nature, trying to weigh the possible harms and benefits. He concluded that placebos were not necessary: 'I have for the past few years been trying the experiment of explaining to the patient why he does not need a drug, when there is no drug known for his trouble. It takes a little more time at first, but one thorough explanation serves for many subsequent occasions. One has only to remind the patient of what we have gone over with him before. When the occasion for a drug really comes, the patient has far more confidence in its workings. No patient whose langage you can speak, whose mind you can approach needs a placebo."[85]

The other major branch of normative ethics is the formalist or deontological school. This school of ethics holds the position that an action is inherently right or wrong, and does not require the knowledge of consequences; it is based upon *a priori* principles. The formalists hold truth-telling to be an ethical imperative, independent of the consequences.

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85. Cabot, Richard C, "The use of truth and falsehood in medicine: An experimental study" *American Medicine*, 1903; 5: 344-349.

Thus, patient deception is wrong, irrespective of the consequences. It is grounded in the autonomy and dignity of the patient. Although many physicians may agree with this position, they will break with this principle if another more substantive principle, such as the duty to benefit the patient overrides it. This has usually been the case with the use of placebos.

Leslie points out the potential dangers with placebo use. He argues that placebos need to acquire a moral legitimacy among physicians so that they may in good conscience prescribe pure placebos if it will benefit the patient. Leslie believes that physicians prescribe impure placebos, which have a specific activity but not for the condition being treated, to assuage a feeling of guilt at giving a pharmacologically inert medication. The dangers here include side effects and promoting the cult of drugs. In addition, when prescribing a impure placebo, the physician may become convinced that he really has found a powerful therapy, and he may not prescribe a needed potent drug. Therefore, he argues wisely that there must be a thorough diagnostic evaluation before using any placebo. One could argue that a placebo in any case should be the medication of last choice, when all possible specific medications have been considered. Leslie warns that "the physician who relaxes his diagnostic efforts because the patient appears to respond to a placebo may miss the opportunity to treat a remediable condition."[86]

Sissela Bok, who generally disapproves of placebo use, argues that although giving placebos may seem harmless in a given individual, this widespread practice may have adverse effects for the medical profession and society. The widespread use of placebos creates a cult of pharmacology

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86. Leslie, A., "Ethics and practice of placebo therapy," *Amer. J. Med.* 16:854-62, 1954

with the belief that anything can and should be treated with a pill. According to this line of reasoning, the use of impure placebos would be increased, along with dependency. Furthermore, there are serious consequences when a patient finds out he has been deceived. He will lose trust not only in his physician, but may lose trust in the medical profession which he may need to rely on at a later time. Thus, deception betrays the trust that is the essential element between a patient and a physician.

I agree with Cabot and Bok who disapprove of the use of placebos. Whether the ethical issue of deception is analyzed with the deontological or utilitarian perspective, I believe that they both argue against the use of placebos. The element of trust is a fundamental aspect of the physician/patient relationship which must not be violated. Ironically, the efficacy of the placebo effect depends upon trust between the physician and the patient, but simultaneously undermines this with the deception involved.

While Brody finds little merit to the use of placebos, he comments on possible ways to achieve the placebo effect without recourse to traditional placebos or deception. "An analysis of the symbolic elements of the physician-patient relationship suggests that a clinical approach that makes the illness experience more understandable to the patient, that instills a sense of caring and social support, and that increases a feeling of mastery and control over the course of illness, will be most likely to create a positive placebo response and to improve symptoms."[87] Thus it is possible to ascertain the symbolic factors in healing which are placebogenic, and use them instead of employing a placebo and deception.

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87. Brody, Howard, "The lie that heals: the ethics of giving placebos," *Annals of Internal Medicine* 97: 112-118 1982

Conclusion

A fundamental conclusion from this essay is the acknowledgement of the placebo effect as a component of any medical intervention. Modell notes the long history and pervasiveness of the placebo effect: "It would appear that this placebo action is the one constant in the long history of medical practice. It is the one common denominator, for instance, between the treatment of the Egyptian physician who, in Papyrus Ebers, prescribed a draught of one-thirtysecond part of Tail-of-Mouse with Honey, one third, for cooling the anus, and the treatment of the modern physician who prescribes penicillin for pneumonia. The placebo effect was present in the administrations of the first tribal witch doctor and is equally active today, since it is a component...not only of medication, but of every phase and kind of medical treatment."[88]

Now that we have specific and potent therapies for many illnesses, many writers look back on the history of medicine, as recently as the 1930's, as little more than the placebo effect. Before this time, the symbolic relationship between physician and patient was the major therapeutic modality; medicine lacked specific efficacious cures. Although this assertion is a commonplace in the literature on placebo, the tone and implications of the statement are ambiguous. It can be viewed as a condescending or even insulting remark totally discounting the therapeutic successes of early medicine. In this sense, *cure* is the litmus test for good scientific medicine. On the other hand, this assertion may be a testament to the effectiveness of physicians as therapeutic agents themselves since

88. Shapiro, A. K., "A contribution to a history of the placebo effect," *Behavioral Science* 5:109-35, 1960

they lacked specific drugs. Even if patients were not cured, they were *cared* for by physicians; this lack of care in modern medicine is a current critical theme.

The *placebo effect* must be extricated from its assumed symbiosis with the placebo. Although the placebo effect is usually defined in terms of a placebo(the effect produced by placebos), it need not be the case. The placebo has a long history whose pejorative connotations persist today, and whose residues are found in the connotations of the placebo effect. These misconceptions must be cleared up so that the *placebo effect* may be put to the task of what Cassell states as the dual obligations of medicine: "The relief of suffering and the cure of disease must be seen as twin obligations of a medical profession that is truly dedicated to the care of the sick."[89]

Modern medicine's efficacy in many areas has at the same time created many illusions about the omniscience of physicians, and the scientific underpinnings of medicine. Within the profession, this has given rise to a measure of medical uncertainty which has a central relationship to the placebo effect. Physicians must find productive ways of dealing with medical uncertainty that does not result in overdiagnosing and administration of placebos.

Currently, there is evidence for a biochemical or physiological mechanism for certain placebo effects. For example, relief of pain with placebos is due in part from a release of endorphins. Other examples are found in the biomedical literature. These findings have further legitimized the placebo effect. Although these findings are certainly desirable, there is the danger that the medical community will simply develop new drugs that

89. Cassel, E., "The nature of suffering and the goals of medicine," *New England Journal of Medicine* 306:639 (1982).

mimic the mechanism of action of certain placebo effects and try to do away with the placebo effect altogether.

The placebo effect should be thought of as a complimentary therapeutic modality alongside pharmacological and specific therapies. I have argued that giving traditional placebos and deceiving patients is unnecessary and unethical. Instead, physicians should establish a good relationship with their patients and through symbolic intervention address both the disease and the illness.

Norman Cousins draws perhaps the most important conclusion from the long history and efficacy of the placebo effect. He states, "What we see ultimately is that the placebo isn't really necessary and that the mind can carry out its difficult and wondrous missions unprompted by little pills. The placebo is only a tangible object made essential in an age that feels uncomfortable with intangibles, an age that prefers to think that every inner effect must have an outer cause."[90]

90. Cousins, Norman. *Anatomy of an Illness as Perceived by the Patient: Reflections on Healing and Regeneration.* W. W. Norton and Company, Inc. New York, 1979.