

**EPIDEMICS AND MEDICULTURAL CHANGE:  
THE ROLE OF EPIDEMIC DISEASE IN CULTURAL REVITALISATION**

**BY**

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Submitted to the Faculty of Graduate Studies  
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**MASTER OF ARTS**

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University of Manitoba  
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## TABLE OF CONTENTS

	Page
<b>ABSTRACT</b>	v
<b>ACKNOWLEDGMENTS</b>	vi
<b>PROLOGUE: THESIS STATEMENT AND INTRODUCTORY NOTES</b>	vii
P.0 A Note on Grammatical Convention: Primitive vs “Primitive”	ix
P.1 A Note on the Literature and Surveying Methods	ix
<b>1. AN INTRODUCTION, LITERATURE REVIEW, AND SYNOPSIS</b>	1
1.0 A Review of the Literature	5
1.0.0 Literature Prior to the Twentieth Century: the Age of Epidemics	9
1.0.1 The Twentieth Century: the Age of Modern Medical History	14
1.1 Inquiry into the Role of Epidemic Disease	18
1.1.0 The History of Ideas and Disease	21
1.2 A Synopsis	25
<b>2. TOWARD AN ANTHROPOLOGY OF MEDICULTURAL HISTORY:</b>	
<b>EXAMINING THE NARRATIVE OF PROGRESS IN MEDICAL HISTORY</b>	30
2.0 Medical History as Teleology	35
2.1 Deconstructing the Narrative in Medical History	39
2.1.0 The Hippocratic “Invention”	40
<b>3. AN ANTHROPOLOGICAL MODEL OF MEDICULTURAL CHANGE</b>	49
3.0 Cultural Change: a Brief Overview	50
3.1 Culture: the Paradigm and the Anthropology of Religion	54



3.1.0 Religion and the Paradigm	55
3.2 Failed Paradigms, Revitalisation, and Culturogenic Stress	56
3.2.0 Revitalisation Theory	57
3.2.1 Criticisms of Revitalisation Theory	61
3.2.3 A Synthesis: Building Upon the Ideas of Revitalisation	62
3.4 The Relative Deprivation Model and Revitalisation Theory	65
3.4.0 Culturogenic Stress: Positive and Negative Operation of Culture	66
3.5 The Sociocultural Effects of Epidemics versus Pandemics	67
3.5.0 The Geography of Disease	68
3.5.1 The Duration of Disease	68
<b>4. AN EPIDEMIC IN ANCIENT GREECE: THE DECLINE OF HOMERIC MEDICULTURE AND THE SUBSEQUENT REVITALISATION OF GREEK SOCIETY</b>	69
4.0 Medicultural Steady State in Ancient Greece	70
4.1 The Period of Increased Stress: an Epidemic of Disease	73
4.2 A Period of Medicultural Distortion	75
4.3 The Period of Revitalisation	76
4.3.0 Hippocrates: Myth or Revitaliser	78
4.4 The Hippocratic Revitalisation Movement: a Discussion	83
<b>5. PAGANISM, THREE EPIDEMICS AND THE RISE OF CHRISTIANITY</b>	88
5.0 The Rise of Christianity and Revitalisation	89
5.0.0 A Positive Christian Epistemology	92

5.0.1 The Problem with the First and Second Epidemic: Revising Stark's Analysis	93
5.0.2 The Contribution of Christian Values to Cultural Revitalisation	96
5.2 Discussion: Christianity as Mediculture	100
<b>6. A COMPARATIVE EXAMINATION OF THE PLAGUE OF THE BLACK DEATH: ITS CONTRIBUTION TO CULTURAL DISSOLUTION, CONTINUITY, AND CULTUROGENIC STRESS</b>	<b>103</b>
6.0 Positive and Negative Explanations, and the Profit of Dying	105
6.1 A Re-Examination of Christianity During the Black Death	111
6.1.0 De jure and de facto Explanatory Models	111
6.1.1 Christianity and Culturogenic Stress	114
6.1.2 The Development of Culturogenic Stress: an Example from the Flagellants	114
6.2 Secular and Religious Strategies at Odds in Christendom	116
6.3 The Sociocultural Effects of Epidemics versus Pandemics: Re-Joiner	118
6.3.0 The Geography of Disease	119
6.3.1 The Duration of Disease: Pandemics versus Epidemics	121
6.3.2 Discussion	122
6.4 The Black Death: Discussion	123
<b>7. THE EPIDEMICS OF SMALLPOX AND SYPHILIS, AND A COMPARATIVE DISCUSSION OF EPIDEMICS DURING THE HISTORICAL PERIOD</b>	<b>126</b>
7.0 Spanish Conquest and Disease in the New World	126

7.0.0 The Amerindians' Response to Epidemic Disease	129
7.0.1 The Contribution of the Missionaries and Revitalisation	130
7.1 The Epidemics of the Renaissance - Syphilis et al.	133
7.1.0 The Apparatus of the Paracelsus	135
7.1.1 Discussion	137
7.2 A Comparative Discussion of Epidemics During the Historical Period	138
<b>8. THE QUESTION CONCERNING MEDICULTURE IN THE TWENTY-FIRST CENTURY, AND THE FURTHER APPLICATION OF REVITALISATION THEORY</b>	<b>144</b>
8.0 No Magic Bullet	145
8.0.0 Discussion: Is Revitalisation a Useful Concept for Understanding the Present?	150
8.1 The Further Application of Revitalisation Theory	153
8.1.0 Epidemics as Disasters and the Application of Revitalisation Theory	154
8.2 Discussion	158
<b>9. CONCLUSION</b>	<b>162</b>
<b>ENDNOTES</b>	<b>167</b>
<b>REFERENCES CITED</b>	<b>173</b>

## **ABSTRACT**

Medical historians have failed to produce an explanation for the development of medical beliefs in the West. Rather than approach medicine as culture, they celebrate the physicians who have made outstanding contributions to human knowledge. Following revitalisation theory I build a anthropological model which highlights events in Western history that were devastating enough to present a challenge to traditional medical beliefs. Consequently, external and internal factors are incorporated into this theory of cultural change. In this thesis I argue that epidemic disease can weaken a culture's belief in the efficacy of their medical system. In an attempt to revitalise mediculture, new medical beliefs are adopted because they decrease the disparity between what ought to be the case (belief) and what actually is the case (experience). Moving beyond the ethnohistorical application of this model, I argue that alternative medicine in the West is an attempt to revitalise modern medical because it has failed to be effective in curing diseases such as cancer. The potential application of revitalisation theory is examined by focussing upon the epidemic of HIV/AIDS in Zimbabwe, Africa, and attention is drawn to the role of foreign involvement (e.g., disaster relief) in this process of cultural change.

Key words: epidemics; medical history; medicultural change; revitalisation theory.

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*Ex nihilo nihil fit,*      D. S. P.    Winnipeg, 2002

## **PROLOGUE**

### **THESIS STATEMENT AND INTRODUCTORY NOTES**

At the outset, let me state that the purpose of the thesis is to offer an anthropological understanding of the role of epidemic disease in shaping the cultural changes that have occurred during "Western medical history." The problem with the traditional approach to this "history" of medicine is that it cannot account for cultural change; rather, it only offers fragments of history, biographies of physicians, and ultimately assumes what it intends to prove: that medicine in the West has evolved alongside rationality.

In 1971 President Nixon waged war against cancer, and despite the billions of dollars that have been invested into cancer research, cancer seems to be winning this epidemiological battle. The significance of this event for Western cultural history and academia is that it draws our attention to similar events in our past and inspires our curiosity regarding the ways that societies have negotiated similar discrepancies between medical beliefs and virgin-soil epidemics or pandemics.

The problem stated above can be solved by drawing upon the anthropological theories which have been successful in explaining the development of New Religious Movements. The application of this theory is not whimsical, though; there is a logical reason for drawing upon the anthropology of religion. At the most fundamental level, religion, philosophy, science and medicine are paradigms that are used to explain phenomena. They define reality and our experiences within it; and medicine developed within the religious paradigm. If there is a "medical history" to be told, then it

necessarily begins with the anthropology of religion. Consequently, revitalisation theory is used in this thesis to construct an explanatory model that accounts for the process of cultural change in Western medicine.

It is my argument that the relationship between natural disasters and the growing dissatisfaction with traditional medical beliefs explains the cultural changes which have occurred in Western medicine. As such, revitalisation theory in conjunction with relative deprivation theory offers a new perspective: a model for understanding the changes that have occurred during the course of Western medical history. Finally, through this anthropological approach to medical history I introduce the concepts of positive and negative epistemology, and culturogenic stress to explain why different cultures do not respond the same way to epidemic disease.

In this thesis I focus upon epidemic disease because of the impact it has upon a specific culture; however, this does not exclude disease episodes such as bubonic plague. If one consults the literature regarding disease, plagues and pestilence, the Black Death is referred to as "an epidemic" because the author is only considering the impact that disease has upon a specific geographic region rather than the entire world. As such, the term pandemic can only be understood in reference to a worldwide phenomenon which is beyond the scope of this thesis. Nowhere do I discuss the effects of bubonic plague as it affected the *entire* world; consequently, it is difficult to speak of a pandemic if one is only considering the impact it had upon a specific region.

### **A Note on Grammatical Convention: Primitive versus “Primitive”**

In this thesis I do not consistently place quotation marks around the word *primitive* - especially in chapter two. It is important that the reader understands that this is not an error of omission or a disregard for the adoption of grammatical conventions within the discipline of anthropology. I use the term “primitive” without quotation marks because the authors to whom I refer, or paraphrase, never intended the word to be placed within quotation marks. These authors used the word primitive as a contrast to the more “evolved” Westerner (for an example see O. S. and L. N. Fowler, *Self-Instructor in Phrenology and Physiology* 1859 in Duffin 1999:86). Accordingly, it is understood that “primitives” were not considered to be rational, but rather were seen as living artifacts. For historical purposes, then, and to maintain the meaning which was originally implied, it is necessary to refrain from the use of literary tools that diminish the impact of words such as primitive and its associated connotations; however, where it is appropriate, I have used quotations.

### **A Note on the Literature and Surveying Methods**

The literature that has been reviewed in this thesis is not derived from a single field within the sciences or social sciences, but rather from many genres of writing. There are no epidemiological accounts of the plague of Thucydides; there are, however, the brief observations made by an individual who was more interested in the Peloponnesian War than in the Plague of Athens. Such accounts, nevertheless, provide ethnographic information about the cultural response to epidemic disease.



When the archaeologist climbs out of his excavation and packs his artifacts for shipment to the laboratory; when the ethnologist records his last field note and bids goodbye to his aged informants; when the folklorist turns off his tape recorder and thanks his narrator for his cooperation; and when the historian rewinds his microfilm of archival materials on Indian Affairs - each may have concluded an experience that will contribute substantially to the cause of ethnohistory. [Ewers 1961:262]

Unfortunately it is questionable whether or not all of the commentators that are used during this study intended to provide such an analysis. In other words, in the first century before the common era, Virgil wrote - by our standards - poetry. While such documents have survived, then, many of them were not intended to be interpreted as historical accounts.

In support of the ethnohistorical approach to gathering ethnographic information, Bruce Trigger argues that "enough isolated information is available concerning the behaviour of individual Indians in certain specific circumstances that a fairly detailed picture can be built up of their differing responses to these situations" (1975:52). In support of the logic of this approach, one can turn to William of Ockham (1285-1349) who argued *entia non sunt multiplicanda praeter neccessitatem* (entities do not need to be multiplied beyond necessity) and therein asserted the Principle of Parsimony, or Ockham's Razor. If entities do not need to be multiplied beyond necessity, then it is reasonable to accept that although the writings of various authors were not intended to be historical ethnographies, the similarities allow us to construct a picture of how people responded to a similar situation across cultural and time continua.

Much of the historic literature that I refer to is accessed through the work of medical scholars such as Erwin H. Ackerknecht, Logan Clendening, William H. McNeill,

Roy Porter, Henry E. Sigerist, Paul Slack, Terence Ranger, George Rosen, Philip Ziegler and so on. Although I have criticised the approach of some of the authors noted above, this does not imply that their studies were not worth while or that there is no valuable information to be gained from them. On the contrary, these authors are well studied and they have presented historical material that would be otherwise difficult to obtain. Although the approach to understanding the development of Western culture and the institutions within it change, we are indebted to these scholars for their contribution.

## CHAPTER ONE

### AN INTRODUCTION, LITERATURE REVIEW, AND SYNOPSIS

In the first chapter of *History of Medicine. A Scandalously Short Introduction* (1999) - "Heros and Villains" - Jacalyn Duffin explains how she introduces first-year medical students to the components of their education at Queen's University. During the first class, the new students break into groups and are given a list of medical figures (Duffin 1999:3). The students' objective is to decide whether the medical figure they will discuss is a hero, a villain, or both. "The students then prepare to present their finding to the class and write a brief report with a bibliography" (Duffin 1999:3). According to Duffin (1999:6) "first-year students want to find heros in the past. . . . [and] the game provides a historical role model."

While Duffin makes an attempt to reconcile the biases and myths in medical history by addressing terms like "irrational" and archetypal concepts in medical history, she ultimately fails. For example, Duffin (1999:92, emphasis added) states that "now defunct medical practices were neither irrational nor unscientific; the rationale was reconciled with prevailing science and concepts of disease. . . . Reasoning is involved in all medical systems, *including the past orthodox medicine, and the present of unorthodox, or alternative medicine.*" This quotation would have been more effective, though, if it referred to the medical practices of small-scale societies, or the so-called "primitive" medicines. "Primitive" medicine, however, does not fall into the scope of *History of Medicine* (Duffin 1999), nor does it fall into Duffin's medical epistemology. According to Duffin, "medicine is not a science; rather, it is an applied technology or an

art that makes extensive use of *science*” (1999:64, emphasis added). In accordance with this definition, “medicine” is an exclusively scientific technology. Logically, if medicine makes extensive use of science, then any “healing practises” that do not use “science” cannot be considered medical; for example non-Western systems of healing. Duffin in her *History of Medicine* (1999) thus presents a history that does not stray too far from the accepted concepts and narratives in traditional Western medicine.

In *Medicine, Rationality, and Experience* (1994) Byron J. Good argues that in the West it is difficult to counter the opinion, or belief that “our own system of knowledge reflects the natural order . . . and that our own biological categories are natural and descriptive rather than . . . cultural and classificatory” (1994:3). Good contends that knowledge is culturally shaped and medicine constructs the “objects” that clinicians attend to. The discipline of medicine is understood as a “symbolic form through which reality is formulated and organized in a distinctive manner” (Good 1994:66). The culture of medicine constructs patients, disease, human anatomy and physiology, and in doing so it constructs the physician. Good argues that the medical students at Harvard University are involved in a

process of coming to inhabit a new world. . . . [T]he body is newly constituted as a medical body, quite distinct from the bodies with which we interact in everyday life, and the intimacy with that body reflects a distinct perspective, an organized set of perceptions and emotional responses that emerge with the emergence of the body as a site of medical knowledge. [1994:70-71]

The educational program at Harvard University, then, deconstructs the “person” who enters medical school.

Medical culture becomes a distinct form of reality for the medical student (Good

1994:67) and in this reality their subject matter, the human body, becomes “foreign.” Students are reintroduced to the human body according to a distinct medical construct. They examine it in microscopic detail and view it as a radiological image. It is in this way that the human body begins its transformation into a foreign entity, virtually unrecognizable to the common eye. Consequently, the medical student must carry his/her new perceptions into medical culture by way of socialisation.

As Good points out, in addition to seeing, they must learn to read, write, speak, and interpret data in a way that is congruent with the discipline of medicine. Perception is shaped by the medical discourse. Through this process of socialisation, then, medical students develop a special way of perceiving reality, or what Foucault ([1973] 1994; for an example see pp. xi, xiii, xix, and p.89) and Good (1994:69) refer to as the medical gaze. In addition, then, to Good’s (1994) insight regarding the acculturation of medical students, it can be argued that medical schools - such as the one at Queen’s University - teach the student to see medical history and progress in a particular way. The physician’s heroic struggle against disease is the subject of medical history.

If we are to understand human cultural history - including why traditional beliefs decline and new systems of beliefs are adopted - we must explore the other factors that shape culture. In *Anthropology and Modern Life* (1923), Franz Boas argues that “theories of cultural growth have been built based on the assumption of the determining *influence of single causes*” ([1923] 1986:239, emphasis added). These theories have failed to take into account other influences, however, and by doing so they have exaggerated their own importance.

While considering the development of modern science and the specific disciplines within it, there is room for further elaboration and this in Master's thesis I will contribute to an ethnography of Western culture and the factors that have shaped it. In *Man and Nature in the Renaissance* (1978:29), Allen G. Debus explains that during the Renaissance the Paracelsians

argued passionately that their [era] was a new and violent age - one that has spawned ravaging diseases unknown to the ancients. As a result they needed new medicines, more potent than the traditional Galenicals prepared from herbs. Their meaning was clear: These new medicines were their chemically prepared metals and minerals.

In addition to the philosophers' efforts during the Epistemic Revolution, there are other factors that have contributed to the development of modern science, Western culture and our *Weltanschauung*. For example, Friedrich Nietzsche (1844-1900) asks in *The Gay Science*:

Do you really believe that the sciences would ever have originated and grown if the way had not been prepared by magicians, alchemists, astrologers, and witches whose promises and pretensions first had to create a thirst, a hunger, a taste for hidden and forbidden powers? [(1887)1974:240]

Nietzsche was only partially correct, though. While Nietzsche recognized that chemistry was closely related to alchemy, and alchemy was inseparable from religion, he made no reference to disease as a factor that might have encouraged the development of science in the West.

Debus' quotation above, then, presents us with the role of "new ravaging diseases that were unknown to the ancients" (1978:29) as a factor that had an impact on medical knowledge during the Renaissance. Consequently, this episode of epidemic disease can

be understood as a pivotal point in medical history. It was disease that stimulated and gave force to the new ideas that challenged the traditional medical beliefs of the Renaissance. How, though, did this process of cultural change operate?

### **A Review of the Literature**

There is extensive literature dedicated to the subject of epidemics and the assumed corollary: Western medicine. As suggested, the literature implies that the obvious counterpart to any question regarding disease or epidemics is necessarily related to Western medicine (cf. Neve 1995). According to Roy Porter (1997:11; also see Fee 1993:xxx; and Rosen [1958] 1993) “the retreat of the great lethal diseases was due . . . more to urban improvements, superior nutrition and public health than to curative medicine.”

The literature that has been reviewed includes a broad range of disciplines that offer diverse perspectives on the subject of epidemics and their contribution to economic, demographic, social or political change. In addition to the disciplinary orientation of the literature reviewed, there are a number of distinct kinds of literature that I have identified. For example, during Greek antiquity the literature portrays the tragedies of Athenian society. The literature does not vary greatly from the literary style and focus that was established during the fifth century BC (see Longrigg 1992). This literature review, therefore, is divided into two sections: literature prior to the twentieth century and literature during the twentieth century each of which are respectively termed ‘The Age of Epidemics’ and ‘The Age of Modern Medical History.’

Many authors (for example, Kiple 1993; McNeill [1976] 1998; Porter 1997; and Rosenberg 1988) have suggested that the 'Age of Epidemics' properly begins with the advent of agriculture and ends during the twentieth century. The view that we are no longer at risk of epidemic disease, or that the so-called 'Age of Epidemics' has ended is premature, however. For example, as suggested by Charles E. Rosenberg (1988:327), "by the end of the 1970s, most Americans had come to regard themselves as no longer at risk; infectious disease was almost by definition amenable to medical intervention." The eradication of smallpox in 1976 was a milestone for modern medical campaigns such as the World Health Organization, which endeavored to reduce the number of deaths caused by infectious disease.

This victory against infectious disease was short lived. In the 1980s, HIV/AIDS was identified. The incidence of HIV/AIDS increased and many persons fell ill of HIV and died of AIDS. In addition, "resistant strains of malaria, tuberculosis, and familiar infections was a second, and in many ways more important, sign that twentieth century victories over the parasitic microorganisms" were only brief disturbances in the history of disease and humanity (McNeill [1976] 1998:10). Given the return of infectious diseases, which had apparently been eradicated by modern medicine (McNeill [1976] 1998; Rosen [1958] 1993; and Rosenberg 1988:327), it becomes apparent that the idea that modern medicine had been able to successfully end an 'Age of Epidemics' is illusionary. More specifically, although epidemics of infectious disease have affected humankind since the rise of agriculture (Kiple 1993; McNeill [1976] 1998; Porter 1997; Rosenberg 1988; and Thomas 1995), they have not affected humans on a perpetual basis.



For example, (according to Kiple 1993; Porter 1997; and Rosen [1958] 1993) in approximately 430 BC the Plague of Athens struck Greece. There are no further records of epidemics until A.D. 165 and 180 when disease attacked Rome. Rome was affected by another epidemic in 211 and 266 A.D. The next major plague that devastated the pre-modern world was the Plague of Justinian in 563 A.D. Following this epidemic, there was the Black Death of 1348, which continued to afflict Europe until 1383. Special attention ought to be drawn to the Plague of London in 1665. In addition, in the years 1489, 1528, 1542, 1566, and between 1618 and 1648, typhus was rampant in Europe. During the eighteenth-century, notably during the potato famine, the 'Irish Fever' or typhus was once again epidemic. In 1818 cholera was pandemic and reappeared five times, while in the twentieth-century there was an influenza pandemic. In addition, between 1750 and 1850, smallpox and tuberculosis were epidemic in Europe. Typhus was epidemic again during the first World War. It was brought under control by the end of the Second World War, and polio threatened North America not much more than a quarter-century ago. This brief history of epidemic disease illustrates that any conclusion which states that an 'Age of Epidemics' has been brought to an end through modern medicine, public health, or the like is erroneous.

To be sure, and without going into too much detail, consider the approximate time between the epidemics: there are 595 years between the Plague of Athens and the Plague of 165 A.D.; the years between the epidemic of A.D. 266 and 563 are 297; there are 753 years between the Plague of Justinian and the Black Death, and if one includes the epidemics of Asia, specifically the Great Smallpox Epidemic of A.D. 735-37, there

are 594 years between Asiatic smallpox and bubonic plague. During the Black Death and the subsequent plagues of Europe and North America there are, on average, a minimum of 20 years, to a maximum of 100 years between epidemic disease episodes. Further, given the amount of time since the last epidemic and the latest pandemic - HIV/AIDS - and fact that the epidemics of the Third World that have never lessened, we ought to question whether an age of epidemics has come to an end, or if we are merely at a point where disease has temporarily retreated as it has in the past (unless we assume that medical treatment in the past was effective).

With the considerations above in mind, it seems more appropriate to use the phrase, 'The Age of Epidemics' to delineate an era where it was *believed* that modern medicine had ended the reign of infectious disease (see McNeill [1976] 1998; and Rosenberg 1988) rather than using it in reference to an epidemiological trend. Although I have rejected the idea that an 'Age of Epidemics' has come to an end, the fact cannot be denied that modern advances have contributed to the control - albeit temporary - of certain types of infectious disease. During the modern era the advances in public health-care and policy, medical theory and technology, nutritional advances, advances in the storage of food, reduced stress and the like, have lessened the impact of epidemics on society (Cohen 1989; Kiple 1993; McNeill [1976] 1998; Porter 1997; Rosen [1958] 1993; and Sigerist 1943).

As the changes noted above occur, the literature turns its attention from describing the plight of society to detailing the success of modern medicine. In the attempt to describe the rise from mystic, animistic and magical antecedents of medicine

to the enlightenment of the modern era, which was being sharply contrasted with the old intellectual regime under the authority of the Church, historians of medicine called attention to the new authorities and canonized the physicians (Gladston 1981:134; McKeown 1971:3-4; and Neve 1995:478 & 477). It is not uncommon, therefore, to find a copious amount of literature dedicated to biographical accounts of physicians and tales of medicine's victory over disease. Perhaps this is why Gordon (1993:3) has stated that "the early history of medicine is enormously boring."

### **Literature Prior to the Twentieth Century: the Age of Epidemics**

As suggested above, the historical reference to an 'Age of Epidemics' begins with the rise of agriculture and related developments, namely, the domestication of animals and population increase (McNeill [1976] 1998; and Porter 1997). Before moving on to the historical period, something ought to be said about disease in human prehistory, lest we erroneously assume that there was a 'Golden Age' where hominids were free from infectious disease (cf. Magner 1992). Unfortunately, as suggested by William H. McNeill ([1976] 1998) and Ackerknecht ([1955] 1982), it is particularly difficult to discuss disease in human prehistory given the scanty evidence.

Our understanding of disease in the past has developed out of the representation of disease in literature and art; however, where there are no written records to rely on, the inquiry into this subject becomes problematic. Nevertheless, assessments (for example, Ackerknecht [1955] 1982; Kiple 1993; Magner 1992; McNeill [1976] 1998; and Porter 1997) of disease in human prehistory, based upon paleopathological methods,

ethnographic comparisons between non-literate societies - the so-called primitive peoples - and non-human primates, for example, have allowed some authors to project an image of disease ecology in human prehistory (see Magner 1992:3ff for a brief discussion; and McElroy and Townsend 1989 for an in-depth treatment of the subject).

It has been suggested above that there was never an age where humans were not affected by disease. According to McNeill ([1976] 1998), disease has served as a mechanism for a balance between disease and host. The balance, however, was upset as humans changed culturally and technologically. Take for example the effects of irrigation farming or the domestication of livestock on humans (see McNeill [1976] 1998:54ff for a discussion). According to McNeill ([1976] 1998:94),

by 500 BC different micro - and macroparasitic balances had established themselves in each civilized region of Eurasia, and unstable accommodations between human hosts and the new civilized disease had begun to manifest themselves in some and probably in all of the major civilized centres.

#### *The Historical Period*

According to McNeill ([1976] 1998), the written documentation and description of disease in its epidemic form dates back to the Babylonian *Epic of Gilgamesh* (c. 2000 BC). In a Chinese record of epidemics, which dates back to thirteenth century BC, Anyang asks: ““Will this year have pestilence and will it be deaths?”” (Anyang translated by Cha in McNeill [1976] 1998:96). “In the *Iliad* we read of Apollo . . . inflicting epidemic illness . . .” and the Bible makes reference to the plagues of Egypt in the Book of Exodus and Book I of Samuel (Rosen [1958] 1993:5). There are descriptive accounts of disease in the Egyptian papyruses, but the first comprehensive account and descriptive

account of epidemic disease dates back to Thucydides' *History of the Peloponnesian War* (c.425 BC). Although Hippocrates deals with the subject of disease in the *Epidemics*, Thucydides provides the only account of the Plague of Athens. Epidemic disease continues to affect and fascinate humanity; consequently it is described throughout the history of the West according to the conventions and beliefs prevalent during those ages (cf. Denning 1996).

With the above said, we ought to recognize that any examination of the literature that discusses disease will be culturally rich and can provide us with insight into the culture of a period and perhaps the process of cultural change. For example, in *The History of the Peloponnesian War* (Book II, Chapter 52), Thucydides notes that a deadly pestilence broke-out with unprecedented rates of mortality as Athens became overcrowded. In addition to the high mortality rate, Thucydides claims that the epidemic had a profound impact upon the "minds" of the Athenians. More specifically, Thucydides (in Warner 1954:151-152) states that

the doctors were quite incapable of treating the disease. . . . Nor was any other human art or science of any help at all. Equally useless were prayers made in the temples . . . and so forth; indeed in the end people were so overcome by their sufferings that they paid no further attention to such things.

The passage above allows one to comment on Athenian society and culture during the plague. In short, it would seem, given Thucydides' description of the epidemic, that Athens entered a state of nihilism where a part of its cultural paradigm was challenged and defeated by disease and the epistemic pressures it exerted upon society.

It is here, then, - in Thucydides' description of the Plague of Athens - that the

subject matter of this proposed thesis is first recognized: *disease impacts human culture and all aspects of it, including medical beliefs*. Following the Plague of Athens there are a number of epidemics that have received substantial observational and literary attention. Lucretius (99-55 BC) in *De Rerum Natura* (Book VI) provides a lyrical account of the historic Plague of Athens, while the Byzantine historian, Procopius (500- 562) provides us with an account of the Plague of Justinian. In addition to these early literary accounts, the poetry and prose of Virgil (70-19 BC), the writings of Cyprian (bishop of Carthage) in the third century AD, Dionysius (bishop of Alexandria) in the third century AD, Boccaccio (1313-1375), Defoe (1661-1731), and Paracelsus (1493-1541) all recognized that epidemics presented a crisis to humanity. According to Rodney Stark (1997 pp. 74 and 77), in addition to recognizing the severity of the epidemics in terms of mortality, Cyprian, Dionysius and other church fathers recognized that the epidemics made “major contributions to the Christian cause.” In Cyprian’s *Mortality* and Dionysius’ *Festival Letters*, it is noted that the Christians believed that the epidemics were a period of faith-testing; it was a time when “all other faiths were called into question [and] Christianity offered explanation and comfort” (Stark 1997:82). Cyprian and Dionysius recognized that culture - in this case the Christian and Pagan belief system - was affected by a natural stressor, namely epidemic disease.

Stark (1997:72) has suggested that recent works on the rise of Christianity (i.e., Frend 1984 and MacMullen 1984) have failed to recognize the contribution that epidemics have made to the development of Christianity. If Cyprian, Dionysius, and Eusebius thought that epidemics had made a contribution to Christianity (McNeill [1976]

1998; Stark 1997), why have authors in anthropology and other disciplines tended to ignore the impact of epidemics upon cultural systems such as religion? For example, in Richard Tarnas' (1991) account of Western Philosophy and Religion, there is no mention of disease, epidemic or plague. According to Tarnas (1991:109), the rise of Christianity consisted of a subtle process of conversion from paganism. The decline of paganism and rise of Christianity is seen as a Hegelian dialectical process that does not need explanation.

During the fourteenth century, Boccaccio wrote his tragi-comedy, *The Decameron* (c.1348-52), in the shadow of the Black Death in Florence. More specifically, Boccaccio used the introduction (pp. 6-12) to describe the setting and establish tone. While setting the context for *The Decameron*, Boccaccio has provided a first-hand account of the epidemic, which included the effects it had upon the citizens of Florence. The authors mentioned above have not made a formal inquiry into the process of cultural change, nor have they dealt with the subject of epidemic disease and its effect upon society and culture in any analytical or comparative detail. Typically the description of the epidemics and the societal response seem to be used as a literary device to create a morbid and chaotic mood (cf. Sontag [1978,1989] 1990:41).

When comparing Thucydides' and Boccaccio's account of the Plague of Athens and the Black Death, there are striking similarities to be found regarding the failure of doctors and medicine, the disintegration of morals, and eventually the complete loss of hope evidenced in a nihilistic society. In fact, the similarities are so strong that James Longrigg (1992) argues that Thucydides' account of the plague was a carefully crafted

narrative that has provided the template from which all literary depictions of epidemics have followed. According to Paul Slack (1992:9)

one can [therefore] never be entirely sure about the extent to which chroniclers of epidemics concentrated on social dislocation, the failure of doctors, flights to and from religion, rumours of poisoned well, and similar phenomena because Thucydides and later writers down to Defoe taught them to look for them.

Criticism will be kept short here. It is difficult to take Slack's argument without scepticism. Did Thucydides - in four and one half pages - influence the perspective of *all* chroniclers of epidemics? Did these chroniclers see social and moral disintegration because Thucydides taught them to see it in his brief treatment of the subject? Perhaps some authors have sought to describe the negative effects of epidemic disease, but given the mortality rate that is associated with a virgin-soil epidemic it is hard to imagine how much good could be found in the midst of mass death.

### **The Twentieth Century: the Age of Modern Medical History**

As suggested above, prior to the twentieth century the literature regarding epidemic disease was sometimes analytical but mostly descriptive. It documents a given society's mortal and moral reaction to pestilence. During the twentieth century, though, we see the emergence of epidemiological, demographic and economic inquiry into the subject of disease and its history.

In addition to the types of studies noted above, there is a curious amount of literature dedicated to tracing the evolution of the Western medical tradition and the production of medical biographies. As suggested, this focus on heroes grew out of the



changing ideologies of the Enlightenment and the medical opinion regarding the retreat of epidemic disease. In other words, although infectious disease continued to affect humankind, it cannot be denied that during the modern era advances were made in modern medicine that resulted in the ability to control disease through vaccines, for example. As such, the prophecy of Francis Bacon (1561-1626) seemed to be fulfilled with the obvious efficacious nature of modern medicine and the apparent decline in infectious disease. For example, Robert Louis Stevenson (1887) wrote expressing “an almost universal public esteem in which the physician was held” (Cooley 1981:xvii): “There are men and classes of men that stand above the common herd; the soldier, the sailor and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman; the physician as a rule. He is the flower (such as it is) of our civilization” (Stevenson in Cooley 1981:xvii).

*The History of Modern Medicine: The Twilight of the Idols*

Many authors (for example, Ackerknecht [1955] 1982; Cartwright 1972; Crawford 1914; Hudson 1983; King 1975; Kiple 1993; Magner 1992; McNeill [1976] 1998; Oliver 1930; Porter 1997; Stern 1941; Winslow 1943) begin their narratives with the prehistorical period rather than with the historical period. These authors speculate about the role of disease. They concoct models that are often derived from ethnographic research of non-literate small scale-societies to substantiate their speculation regarding the “primitive” understanding of disease and how these early humans responded to it.

According to Mark Nathan Cohen (1989:1) “our perception of human progress relies heavily on stereotypes we have created about the primitive and the civilized.”

Similarly, Michael Neve (1995) suggests that the Western medical tradition is an invented tradition. Neve argues that it is assumed that this “tradition is visible, or comprehensible, through the examination of the historical record . . . [as such, it is assumed] that the tradition in question has a kind of backbone, a backbone that is the product of evolution. . . .” (1995:477). As a result of these assumptions the historical record is misconstrued, and a series of historical icons are produced (Neve 1995:477). According to early twentieth century authors (although not limited to the early twentieth century) the Western medical tradition evolved from the irrational beliefs of primitive man (Crawford 1914; Mettler 1947; Oliver 1930; and Walsh 1920). Within these narratives the progression of medical beliefs are attributed to each era’s great physicians such as Hippocrates, Galen, Avicennia, Paracelsus, Harvey, Sydenham, or Osler.

It is evident that the authors reviewed, who follow this teleological or positivistic model of intellectual evolution, have presented a skewed picture of the cultural changes that have occurred in the medical beliefs of Westerners (cf. Galdston 1981). They have failed to inquire into the reasons why a society might adopt a new system of belief. They have failed to understand that all medical beliefs, or any science no matter how effective it is, is in the end an explanatory system that is dependent upon the acceptance of a particular cultural paradigm. As a result they have failed to ask how these new beliefs have functioned throughout history and why they may have been seen as more effective than former beliefs. The authors who follow this teleological approach to medical history have sought to focus on the ‘particular’ and have “ascribe[d] revolutionary breakthroughs to historical figures” (Neve 1995:483). According to Neve (1995:483),

this is the greatest danger when oversimplified models of historical progress are presented. Consequently, the authors reviewed above have failed to understand that the process of cultural change is affected and directed by a wide array of factors; for example, economics, politics, demographics, nutrition, cultural beliefs or epidemic disease.

In short, the historians of medicine have typically been physicians (see McKeown 1971:17; Rosenberg 1992:1-2; and Sigerist 1951:15) who have approached their subject-matter guided by ideas of evolutionary progress, teleology, enlightenment and the eradication of infectious disease through modern medicine (see Ackerknecht 1971 pp. 7 and 9). They have been

fascinated by the lives and work of men such as Hippocrates, Galen and Osler . . . [and in doing so] they seem scarcely to have noticed that these giants were *unable to treat any disease effectively*. In consequence, histories of medicine, like histories of art, have two main themes, the great men and the great movements. [McKeown 1971:4, emphasis added]

While focussing upon the history of Western physicians and philosophers, historians have failed to understand the history of medicine sociologically (Sigerist 1960) or anthropologically. Of course there are great individuals and movements to be identified in any field; artistic, philosophical, political or religious revolutions do occur, but we cannot let our reverence obscure the events that have been compelling enough to incite these individuals to change. Nor can we forget to examine the society within which these changes took place. In other words, medical ideas and movements are more than the thoughts of philosophers and/or physicians; they are ideas that have replaced traditional medical beliefs for reasons other than physical efficaciousness. Perhaps if

these authors had been concerned with such questions they would have inquired into the cultural beliefs of a society rather than of only historical figures - this, however, is not what we can expect from those who have been acculturated into the biomedical paradigm (see Good 1994).

### **The Inquiry into the Role of Infectious Disease**

In the 1940s Sigerist was criticized and attacked for his “move away from the study of great physicians and texts towards a new concept of medical history as social and cultural history” (Magner 1992:vii). By the 1960s, it is evident that Sigerist still felt that the subject had not been adequately dealt with when he wrote:

I would like to draw your attention to a field of studies in the history of medicine that has been greatly neglected in the past. If you open a textbook, any textbook of medical history, and try to find what health conditions were in rural France in the eighteenth century, or what disease meant to the family of an artisan at the same period, you will as a rule not find any information. [Sigerist 1960:25]

Since Sigerist's call for a new approach to the history of medicine, there has been a development of the kinds of sociological questions that Sigerist thought were important, which owes more to the development of the history of epidemics than to the history of medicine (McKeown 1971:3; Park 1992). Perhaps part of the problem stemmed from the fact that Sigerist (1951:31) suggested that historians of medicine needed to be physicians.

During the middle of the twentieth century many authors had moved away from producing biographies of historical medical thought and began to focus upon factors other than that of the physician. According to McNeill ([1976] 1998:22), “the history of epidemics became the province of antiquarians, who took pleasure in recording

essentially meaningless data simply because it was there.” For example, consider the literature that has been dedicated to estimating the mortality since Thomas Malthus suggested that epidemic disease played an important role in limiting population growth in pre-industrial societies. The mortality crises of pre-industrial societies have been well studied. There exist, to only name a few, the studies of Bailey 1996; Dryer 1991; Glass and Eversley 1965; Gottfried 1978; Hatcher 1977; Helleiner 1967; Hollingsworth 1969; Moody 1983; Morrison, Kirshner and Molho 1985; Pollitzer 1954; Razi 1980; Russell 1948; and Slack 1992, 1979, 1977.

In addition to the estimates and debates regarding the mortality during a given epidemic, historians and epidemiologists began to inquire into the specific causes of fatal disease. For example, there are many opinions regarding what type of disease affected the Athenians during the Plague of Thucydides. Logan Clendening (1942:27) argues that the disease was bubonic plague rather than malaria, while J. F. D. Shrewbury (1950) rejects the possibility that it was bubonic plague, smallpox, typhus, or typhoid and declares that it was the measles that afflicted Athenian society (see Longrigg 1980:209-25 for a further discussion). In addition, there is also question of the geographic origin for each epidemic in question. Norris (1977) debated the geographic origin of the bubonic plague in “East or West? The Geographic Origin of the Black Death” without arriving at an ultimate resolution while McNeill ([1976] 1998) argues that the pestilence came from Asia.

Other authors have used demographic and epidemiological data to inquire into other aspects of human life that were affected by disease. For example, Mark Bailey in

“Demographic Decline in Late Medieval England: Some Thoughts on Recent Research” (1996), has used the demographic research associated with the Black Death to suggest that the high mortality rates attributed to the plague caused a change in the society’s traditional marriage patterns. It is argued that marriage was either delayed or avoided because women entered the work force to supplement male labour loss. In the end, as suggested by Bailey (1996), because of the change in England’s marriage patterns - resulting from high mortality and loss of labour - the growth of England’s population was hampered.

In addition to the demographic, economic, epidemiological, geographical approaches, the social study of disease emerged in the history of medicine. According to Katherine Park (1992:63), “for historians of medicine, as opposed to historians of disease, it is less important to identify the actual illness involved than to explore how individuals and societies responded to their experience of illness.” In other words, as first recognized by Thucydides, epidemic disease caused a moral and social crisis among the Athenians. Some authors have thus dealt with the impact that epidemic disease has had upon the minds of men. For example, Norman Cohn in *The Pursuit of the Millennium* (1961), described the religious movements that developed in response to the perceived crises brought about by God through pestilence. Movements such as the Dancing Mania (the dances of St. John), the Flagellants, the persecution of the Jews, and the portrayal of death in literature and art are said to be indications of how the Black Death affected people psychologically (Hudson 1983:42ff; also Cartwright 1977; Crawford 1914; and Ziegler 1969). As suggested by Park (1992:60), however, the social

history of medicine is recent and therefore undeveloped. With this in mind, the literature and research dedicated to the social responses to disease is thus sparse (Park 1992:60).

### **The History of Ideas and Disease**

According to Robert P. Hudson (1983:21) the influence of disease upon the history of ideas can be approached according to individual episodes of disease [illness] or epidemic disease. With respect to the former, Hudson suggests that the early attempts of historians (for example MacLaurin 1923,1925; and Myers 1925) to correlate disease to the history of ideas “were inordinately simplistic and may have given the entire venture a bad name in the eyes of traditional historians” (1983:51). Subsequent attempts to relate individual episodes of illness to the history of ideas (for example, Dumas 1969; Fabricant 1969; L’Etang 1970; Moses and Cross 1980; and Stevenson 1962) were according to Hudson (1983:52; also Ackerknecht [1955] 1982:19) more sound, but they still were “not scholarly in the strict sense.”

According to Hudson (1983:52), Hirsch’s *Handbook of Geographical and Historical Pathology* (1883-1886) and Haeser’s *lehrbuch der geschichte der medicin und der epidemischen krankheiten* (1875) are excellent examples of the second approach to understanding how modern ideas have been shaped by disease. Among the “less ambitious but still meritorious attempts” (for example, Ackerknecht 1965; Bett 1954; Crosby Jr. 1975; Henschen 1965; and Stevenson 1982) to understand the role of epidemic disease in human history, Hudson (1983:52) makes a special reference to McNeill’s *Plagues and Peoples* (1976). Given the amount of attention that McNeill has

received, it seems odd to find Hudson (1983:52) state that “McNeill’s *Plagues and Peoples* . . . ventures into sheer speculation so often that it nearly destroys its useful aspects.”

McNeill’s *Plagues and Peoples* (1976) has received a considerable amount of criticism. For example, in addition to Hudson’s view of the text, Ackerknecht suggests that McNeill’s book reads like science fiction rather than academic history (1982:19). As noted, many medical historians have rejected the social and cultural history of medicine and disease (see Galdston 1981:136). In fact, Sigerist predicted that pursuing the sociology or economics of medicine would yield controversial results. Nevertheless, medical history has been seen as a subject that is “too important to leave entirely in the hands of the academic historians” (Gladston 1981:139).

*Plagues and Peoples* (1976) was reprinted with a new preface in 1998 and it is evident that the opinion regarding his book has changed. For example, many favourable reviews have been included in the new edition. Salisbury states that “this is one of the most novel and challenging new historical concepts in recent times” while The New Yorker reports that this book is “of first importance, a truly revolutionary work,” and finally, The Washington Post states that this is “a brilliant and challenging approach to history” (*Plagues and Peoples* 1998). Although it is not the purpose of this thesis to account for changing perceptions regarding what is valuable or important, it is worth noting that the new critical acclaims suggest a sway from the traditional approach to the history of medicine.

With the above said, McNeill’s *Plagues and Peoples* does seem to rest upon a



similar premise to the proposed thesis. For example, McNeill begins by asking: "How is it that a Hernando Cortez and a tiny handful of Spaniards conquered the Aztec empire?" McNeill briefly examines the efficiency of the Spaniards' guns as an explanation for their success and concludes that there are other reasons that the Spaniards were victorious over the Amerindians (for a comprehensive discussion of the gun hypothesis, see Joan B. Townsend 1983). In addition, McNeill asks why "the old religions of Mexico and Peru disappear so utterly? Why did villagers not remain loyal to deities and rituals that had brought fertility to their fields from time immemorial?" ([1976] 1998:20). McNeill claims that the explanation is to be found in epidemic disease.

Criticism will be kept short here: McNeill's examination of the impact of disease on human history does not systematically follow a model, nor does it offer a model for cultural change. In other words, *Plagues and Peoples* attempts to present a vast amount of information but only so much can realistically be said in a book of this length. As a result, *Plagues and Peoples* is a brief overview of the role of epidemic disease in shaping human history.

The most recent attempt to approach the impact of epidemic disease upon human society and history, *Epidemics and Ideas* edited by Terence Ranger and Paul Slack (1992), fails to provide a comparative approach to understanding how disease has been addressed throughout human history. More specifically, it is suggested that "this volume examines the ways in which these great crises have influenced ideas, how they have helped to shape theological, political and social thought, and how they have been interpreted and understood in the intellectual context of their time" (Ranger and Slack

1992 quoted from the inside sleeve). Unfortunately the examination, as defined in the blurb, is confined to the introduction.

*Epidemics and Ideas* (1992) is a good and useful collection of essays that deal with epidemics during different periods, but there is no section to be found within the text that examines, compares and synthesizes the findings of these separate papers. Similarly, many authors have discussed the subject of epidemic disease and medical beliefs in their histories, but they have not approached the subject in a traditional anthropological manner. They have compiled regional studies (for example, Gottfried 1978; Mullett 1956; and Shrewsbury 1970) explaining how disease has affected a society or village demographically, economically, psychologically or sociologically (for example, respectively: Shrewsbury 1970; Baily 1996; Nelkin and Gilman 1988; and Porter 1997), but they have not approached the subject matter comparatively.

In addition to the history of epidemics, the historians of medicine have generally failed to portray Western medical beliefs - those in antiquity and modernity - as explanatory belief systems. Put simply, medicine is presented as separate from culture (and cultural paradigms such as religion) and therefore is not subject to cultural inquiry or critique. Of course there are exceptions. Some authors, for example Allan M. Brandt (1988), have followed the lead of Susan Sontag ([1978,1989] 1990) and consider the symbolic meaning that has been ascribed to certain diseases in our society. Other authors have built upon the idea of explanatory systems and have produced ethnographies of modern medicine; take for example Good's *Medicine, Rationality and Experience* (1994).

Given the above, a substantial argument has been made in favour of the anthropological inquiry into the role of epidemic disease in human history. It has been illustrated that there are no models or agreements on how the subject ought to be approached, nor is there any consensus regarding what this type of pursuit should look like. The call for other disciplines, for example sociology and anthropology, to contribute to medical history and the role of epidemic disease in human history has been made, but the field is still undeveloped (Park 1992). Systems of medical beliefs, whether they are scientific or ethnomedical, fall within the domain of anthropology and its sub-field, medical anthropology. "Medical anthropology is about how people in different cultures and social groups explain the causes of ill-health, the types of treatment they believe in, and to whom they turn if they do become ill" (Helman 1990:1). Consequently, by offering an anthropological understanding of the role of epidemics throughout human history, while applying relevant anthropological models, an understanding of cultural change in the history of medical beliefs will be offered. In addition, changes in the medical paradigm of the twentieth century will be discussed.

### **Synopsis**

In this thesis I understand epidemic disease as a factor that has incited changes in Western systems of belief because of the impact it has had upon human societies. Epidemic disease has caused catastrophe among the societies it has effected and has exerted extreme strains upon their explanatory systems. When confronted with these strains, a society's explanatory system begins to operate. In other words, the system in

question is used to explain the phenomena that the society is experiencing. In the end, however, the explanatory system in question can either be successful or unsuccessful.

As an anthropologist I am interested not only in the documentation of a society's culture, but also in the process of creating, adopting and developing culture. The operation of culture - not only in everyday life - is particularly interesting and revealing. It can tell us how a given society has explained new phenomena - for example, virgin-soil epidemics - and can provide information about cultural change.

Fundamentally, medical history is the history of explanatory systems, or what we refer to in anthropology as "culture." With this in mind, an extensive argument in favour of the anthropological inquiry into medical history will be made in the second chapter. As suggested by Neve (1995:478; cf. Sigerist 1951:31), "medicine . . . is not necessarily the possession of the doctor." In chapter two, then, I examine and critique medical history. I elaborate upon the brief criticisms made in this chapter regarding medical history in an effort to make the problems with the history of medicine more lucid. The second section of chapter two examines the transition from pre-Hippocratic beliefs to those offered under the Hippocratic system. This examination works critically within the boundaries that the medical historian has imposed upon him/herself by adopting an uncritical stance regarding traditional medical narratives (Neve 1995; and Gladston 1981). As suggested by Iago Gladston (1981:134), the medical historian is dependent "upon the already published word." "To call into question a simple idea of progress, to attempt a different history, can sometimes be seen as doubting the purposes and longings of medicine itself. . . ." (Neve 1995:478). Consequently, a different history, one that

looks beyond the established conventions in the history of medicine “might easily yield controversial results” (Sigerist in Gladston 1981:136).

Chapter three begins with an inquiry into the process of cultural change and anthropological theories of cultural adaptation. I suggest that a model for understanding cultural change (and continuity) can be adopted from the anthropology of religion. Accordingly, the anthropology of religion is critically discussed and revitalisation movements are reviewed. A model for understanding and explaining cultural change is developed and applied to the subject in question: medical belief systems. The second section of chapter three turns to methodology. The resources and limitations of this methodology are discussed.

In chapters four through six I examine specific epidemics in human history. In these chapters I inquire into the ways in which the people of each society responded to the epidemic in terms of culture. Chapter four examines the Plague of Thucydides. Arguments for the adoption of a new system of belief will be offered as the only way that we can explain the adoption of Hippocratic Medicine over traditional Greek beliefs. This chapter draws upon Erwin H. Ackerknecht’s “Primitive Surgery” (1978) and will compare it with other evidence that suggests that there are no efficacious advantages to be found between the two systems. If there are no advantages to be found between the two systems, then we must consider other factors for the adoption of the new beliefs. Consequently, the discussion of cultural change begins.

Chapter five begins with the decline of the Greco-Roman medical beliefs and the rise of Christianity. Christianity is not presented as a revolt against traditional Pagan

beliefs, but rather as an alternative epistemology. The acceptance of Christianity over traditional beliefs is presented in terms of the crisis caused by the epidemic during this era. In other words, Christianity is understood to be a revitalisation movement that gained its momentum as a result of the failure of Pagan explanatory systems to deal with the epidemics efficaciously or epistemologically.

Chapter six turns its attention to the Black Death. The beliefs and responses of Christians are compared to Muslims. The beliefs of Christians and Muslims during this era will be viewed in two ways, namely: revitalistic and explanatory. The intent of this chapter will be to establish that culture has functioned (and functions) in two ways during crises: negatively and positively.

In an effort to conserve space, chapter seven turns to the epidemic of smallpox in the new world and syphilis in the old world. The epidemic of smallpox offers another example of how disease has impacted culture while addressing the hypotheses that have offered for the domination of Europeans over Amerindians. The epidemic of syphilis is used as an example of how epidemic disease has been consciously used to illustrate dissatisfaction with traditional beliefs. Finally, this chapter will briefly summarise and compare what has been learned about the historical period before moving on to the present.

Chapter Eight surveys epidemics in our more recent past including the HIV/AIDS epidemic in Zimbabwe, Africa. I examine two epidemics during the twentieth and twenty-first centuries, namely cancer and HIV/AIDS. Although cancer is not an infectious disease, the mortality that it has caused has reached epidemic proportions and

it is prudent to ask if it is culturally significant. The second section of this chapter draws upon the work of a medical anthropologist at McMaster University - Dennis Willms - who has integrated the biomedical perspective into an ethnomedical paradigm in attempt to deal with the HIV/AIDS epidemic in Zimbabwe. This study is particularly interesting because it offers an anthropologist's examination of how a society's beliefs are affected by epidemic disease and the ways cultural continuity and revitalisation have been promoted recently.

Finally, the purpose and findings of this thesis in the discipline of anthropology are summarised. Suggestions for future research and the application of revitalisation theory are offered and this tentatively concludes the inquiry into epidemics and cultural change.

## CHAPTER TWO

### **TOWARD AN ANTHROPOLOGY OF MEDICULTURAL HISTORY: EXAMINING THE NARRATIVE OF PROGRESS IN MEDICAL HISTORY**

Since this thesis involves an examination of medical history and will criticize traditional historical narratives, perhaps it is appropriate to begin with a survey of the historical endeavour. In his paper "The Vindication of Rubbish," Walter Pagel presents an understanding of historical narratives that is similar to the anthropological critique of ethnographic narratives (see Clifford 1986 and 1988). He argues:

the Medical Historian selects and simplifies. The material at his disposal is overwhelming. He chooses from it what he thinks relevant to his particular task . . . . He endeavours to trace the stepping-stones leading to the modern point of view; he sketches a line of steady progress taking us to a climax - present-day medicine and science. All these involve processes of selection and simplification guided by the modern point of view - that of the historian and his contemporaries. [Pagel 1985:1]

The story is not only limited by the author's selective narrative technique, but more importantly, it is limited by time, space and disciplinary focus (cf. Ackerknecht 1982:xi). To be sure, Lester King (1978) states that producing a comprehensive account of the history of medicine is an unrealistic task. Although he recognizes the variety of factors that have shaped the history of medicine, he has limited his studies to only one small aspect of it. Similarly, Sigerist (1943, 1960) argues that the medical historian must investigate a number of non medical-scientific factors to determine the success or failure of medicine. In his address to the Californian Academy of Medicine (1940), Sigerist calls for economic, philosophical, political, religious, and social investigations into the history of medicine.



Different disciplines of study, then, make various contributions to the understanding of our past and present by offering their own unique perspective on given subjects. As suggested by Pagel (1985:1), the historian is often concerned with tracing the paths that *appear* to have lead to the modern point of view according to a modernist perspective. The historian is interested in describing historical events and making connections between different ages. For example, the historian traces the progression of ethnomedicine from human prehistory to modernity. It is within this attempt at description that the narrator is forced to simplify and thus necessarily overlook or plainly avoid questions that are not relevant to the study at hand (McNeill [1976] 1998; and King 1978).

In literature, whether the audience is the layperson or scholar, we find that human history has been presented teleologically (Gladston 1981:135; also Pagel 1985). In other words, our history has often been presented as an unfolding of stages (for an example see Hegel's *History of Philosophy*) ranging from the primitive to the techno-scientifically modern. In addition, this model presents intellectual and technological advancements in terms of evolutionary progress; take for example, the history of medicine.

As with many of the texts that offer a history of medicine, Ackerknecht's *Short History Of Medicine* ([1955] 1982), Charles-Edward Amory Winslow's *Conquest of Epidemic Disease* (1943), and Wade W. Oliver's *Stalkers of Pestilence* (1930) begin with the assumption that the medical practices of the West have progressed from a primitive stage where man's intellectual capabilities were limited (for a discussion of these stereotypes see Cohen 1989:1ff). To be sure, Winslow (1943:v) begins by stating that the

most “fascinating objective [in medical history] has been the history of ideas, the slow and gradual evolution of human thought.” Raymond Crawford (1914:2) accounts for the reappearance of magic, for example, by suggesting that “the human mind, as it passes to higher stages of enlightenment, does not wholly discard its primitive beliefs.” Finally, while Ackerknecht ([1955] 1982:47) states that “it has never been fully explained why all of a sudden, more than twenty-five hundred years ago, a small group of people in the Eastern Mediterranean took this important and radical step in human thought” - and therefore includes culture and technology as an influence in the adoption of new medical practices - he also attributes these changes to ideological influences (see Ackerknecht [1955] 1982 pp.19, 47, 51, and 55) such as those of the Greek philosophers.

Among these medical narratives described above, one finds that the narrator offers a story of a natural progression to a higher stage of intellectual, political or cultural evolution, but one does not find the narrator questioning the adoption of these new beliefs. Similarly, Lindsay Granshaw (1992:197) has referred to the historical approach of medicine as positivistic. It is assumed that somehow, “for reasons unknown to modern man” (for example, Ackerknecht 1965:47; Wilcocks 1965:16), there was a radical shift in human thought that produced the cultural and paradigmatic changes that would be part of a continual progression to medical enlightenment.

In Granshaw’s (1992:197) view, medicine is seen as the epitome of natural progress. This positivistic approach to the history of medicine is not confined to the scholarly generations of the early twentieth century. For example, Vivian Nutton in the “Social History of Graeco-Roman Medicine (1992:23) suggests that “it was philosophical

speculation . . . that enabled physicians to develop their own medical theories” and thus differentiate themselves from the earlier Homeric medicine. Hamsterley Mill (1992), and Longrigg (1992) suggest that the Greeks *invented* rational medicine by emphasizing that

one of the most impressive contributions of the ancient Greeks to Western culture was their invention of rational medicine. It was the Greeks who first evolved rational systems of medicine for the most part free from magical and religious elements and based upon natural causes. [Longrigg 1992:1; also see Mill 1992:viii]

On the contrary a wide array of factors have contributed to the acceptance of new beliefs and in the end, our paradigm or worldview. It can be shown that intellectual progress, for the most part, has neither been directed by the scientific process, nor has it been stimulated by mere philosophical skepticism or speculation. Fielding H. Garrison argues that “the development of science has never been continuous, nor even progressive, but rather like that tangled, tortuous line which Laurence Sterne drew to represent the course of his whimsical narrative of *Tristram Shandy*” (Garrison 1917:42). In other words, Garrison is suggesting that we have adopted new beliefs and practices for a wide variety of reasons, rather than for any predominant one.

The development of the Western medical belief system must also be understood in a similar manner to Garrison’s remarks regarding the development of science. We need to approach this subject matter in this way not simply because of the epistemological affinities between science and medicine, but rather because the history of medicine tells us nothing about the process of cultural change. In contrast to the literature that addresses the progress of humanity - biographically, culturally,

economically, medically, politically and otherwise - this thesis will move beyond the descriptive and will account for some of the cultural developments in history through a comparative examination of the effects of epidemic disease. For example, we know that there has been an historical line drawn from the Hippocratic school of thought to Modernity. Within this narrative the changing beliefs relative to medicine and society in general have been outlined, but why these changes have occurred, and how new ideologies were able to replace established traditions has not yet been fully addressed by academics.

It is at this point that this inquiry diverges from the discipline of history and begins to become anthropological. As we move away from historical narratives, it is necessary to ask why established traditions have been replaced by new beliefs and practices. In other words, how do we account for and explain cultural change? There are pragmatic reasons for the adoption of new practices - a society does not whimsically give up its god(s) in favour of a new one(s). If we accept this proposition, then we cannot assume that cultural change is simply a matter of technological advancement (cf. White 1959). When a society adopts a new world view and its associated practices, but there are no efficacious advantages to this adoption that can be observed - in the technological or scientific sense - it takes more than scientific progress to begin to explain this process of change.

Paraphrasing the work of Sigerist, Galdston (1981:134) argues that "the essential deficiencies in academic medical history derive from its commitment to the 'great man, great discoveries' view of medical history and of medical progress." Medical history,

then, as it has been told by the medical historian is

largely futile. It may entertain, as does good fiction. . . . [but] it has entangled us in numerous prejudices, myths and misunderstandings. . . . to set things aright we need not only to learn much that is new, but also to unlearn much that is old and in error . . . . the academic medical historian is ill equipped to initiate and to develop such studies. Even if he were receptive, he would need the cooperation of other discipline - economics, sociology [and] anthropology. [Galdston 1981:134ff]

This thesis thus follows the call of Sigerist (1943, 1960, 1961), Galdston (1981) and others who have oriented themselves towards understanding the history of medicine according to sociological principles, rather than in terms of the medical heroes who warred against ignorance and disease.

### **Medical History as Teleology**

As noted above, it has been suggested that those who use terminology such as “evolution” to understand and portray medical progress do more harm than good to our academic and popular understanding of cultural history. The reason is quite simple. Rather than understanding how or why we have progressed, historians have created myths, stereotypes and prejudices regarding medical culture and the people who used it (Gladston 1981). For example, although the term evolution has been used along with terms that imply evolutionary progress, such as primitive, barbaric and civil, the historian often tells a story of a *self-directed evolution* in medical history. Ackerknecht provides an excellent example of the type of fallacious thought common in medical history when he states that “man emancipated himself from supernaturalistic thought” ([1955] 1982:51).

There is no concise theory of evolution in medical history, though. For example, all medical historians refer to Hippocrates as the father of modern medicine. They present the medical history of different civilizations in chronological order in a single text and never deny, nor make clear that this is evolution. It is a “story of a progressive stream of human thought” (Winslow 1943:xii). Consequently, these medical historians use terminology that implies a linear progression from one point to the next - respectively, from the primitive to the modern. Consider the following quotation:

I have compressed into twenty short chapters the fascinating story of man's progress in the science and art of medicine. The story begins with the first groping attempts of primitive man to fight disease with magic and stone knives. It goes on to describe . . . the accomplishments of the great authorities . . . from Hippocrates to Galen; the stagnation of the Middle Ages; and the progress that followed . . . to the rapid developments of the nineteenth century. . . . As a whole [the history of medicine] . . . is considerably more encouraging than the history of many other human activities . . . this book will evoke in the reader at least some of the fascination and enthusiasm which its author has experienced in studying the long road which man has trodden in his fight against disease. [Ackerknecht (1955) 1982:xi-xiii]

It is obvious that Ackerknecht assumes that there is a story to be told. According to Ackerknecht this is a story about man's progress from his primitive antecedents to the enlightenment he achieved in modernity. Consequently, this story is not about a haphazard progression, it is a teleological heroic epic of how man took control of himself and directed his own evolution towards medical enlightenment.

As suggested by Gladston (1981), we need to “unlearn” much of what we have been taught and to do this we need to understand how our thoughts have been influenced. The classic formulation of evolution begins with the work of Charles Darwin and Herbert Spencer, which inspired the cultural and social evolutionists such as Edward Burnett

Tylor (1832-1917), Lewis Henry Morgan (1818-1881) and Sir James Frazer (1854-1941).

Tylor, in *Primitive Culture* ([1871] 1974), argued that human societies have progressed over time. While Tylor argues that all humans have similar intellectual potential, he refers to small-scale societies as “living cultural fossils.” The term implies that small-scale societies are living examples of an earlier stage of human existence from which we evolved. Consequently, these peoples, although they have the intellectual capabilities to reach a stage similar to our own, have not progressed as far as we have and are thus considered to be primitive examples of modern humans. Similarly, in *Ancient Society* (1877), Morgan suggested that there were three major “ethnical periods” in human history. Morgan (1877) defined these stages in human evolution as: Savagery, Barbarism, and Civilization. According to Stephen K. Sanderson (1997:173), “these are essentially stages of technological development in which humans moved from primitive hunter-gatherers to societies based upon complex agriculture and writing.”

In 1890 Frazer wrote *The Golden Bough*, which was an attempt to construct a general theory of cultural evolution for the human race based upon a comparative methodology (Hutton 1997:207). Like the other cultural evolutionists, the work of Frazer was met with enthusiasm until the theoretical canons of cultural evolution was challenged by Boas and his Historical Particularism (Hutton 1997; Appleby et al. 1996).

Although the interest in cultural evolution began to decline in anthropological academia by the early twentieth century (Hutton 1997:207; Sanderson 1997:174), the idea of progress and cultural evolution became useful devices to illustrate the superiority of Western society. For example, the sociological progressivist, Talcott Parsons,

suggested “that modern societies represent the culmination of the human achievement so far, and that the United States is the ‘new lead society of modernity’” (Sanderson 1997:176). It is evident, then, that words such as “primitive” are powerful devices in modern society that have functioned to distinguish between Westerners and non-Westerners (cf. Appleby et al. 1996).

As with any proper story, the narrative of human evolution has a beginning, middle and end: the primitive, barbaric and civil. These themes have not only infiltrated academia, but they have popular appeal (Hutton 1997; Appleby et al. 1996).

Frazer, like Freud, seemed to have uncovered the savagery that lay beneath the veneer of civilization, and he was hailed as a seer. . . . His striking images influenced the work of Eliot, Pound, Yeats, Edith Sitwell, Graves, Forster, D. H. Lawrence. . . . In the 1980s they remained central to the film *Apocalypse Now* and the American bestselling novel *The Mists of Avalon*. The abridged edition of the *Bough*, issued in 1922, has never been out of print. It has become part of the Western consciousness. [Hutton 1997:207]

In short, mass media has influenced Western consciousness and the media has affected the presentation of our cultural history by influencing the way that we think (Ackerknecht [1955] 1982; Gladston 1981; and Pagel 1985).

Although we cannot deny that medical thought, practice and technology have “evolved” (since the rise of modern science), we need to be careful about how we use this terminology. For example, if we are referring to recent progress in medical understanding and knowledge derived from technological advances this terminology is fine. However, if we are using it in reference to earlier periods then the term becomes problematic because ancient knowledge was often hypothetical (Ackerknecht [1955] 1982; Kuhn 1970; Lindberg 1992). For example, Democritus (c. 460-370 BC ) suggested



that the basic element of all things in the universe is not water (in contrast to Thales, c. 640-546 BC), nor is it earth, fire, air or any combination of the four, but rather tiny particles called *atoms*. Can we argue that this was justified true belief, or even knowledge? Is it scientific, or was it simply philosophical speculation? Unless Democritus had access to an atomic mass scale, an atom probe or the like, then the later point of view must be accepted.

### **Deconstructing the Narrative in Medical History**

It has been illustrated above - in the introduction and in this chapter - that the concept of evolution, in one way or another, has been a central theme in medical history (also see Ackerknecht 1971:7). As I have suggested, the adoption of new medical practices were not a result of increased medical efficacy in technology - contrary to Leslie White's argument in *The Science of Culture* (1949) and *The Evolution of Culture* (1959). Briefly, White suggested that there are laws in culture, one of which is the use of energy per capital as a means of ranking societies on an evolutionary scale. According to White (1959), technology is thus the driving force in cultural evolution. If technology is the driving force of cultural evolution, then we should expect to see technological advances where there is cultural change. If there are technological advances, then we should expect to see improvements in its application.

In the case of medical history there is one point that draws the attention of most scholars, namely the transition from Homeric to Hippocratic medical belief systems. It is assumed, within this body of theory, that the transition to Hippocratic medicine was

owed to Hippocrates' new etiology. In this body of literature, however, historians, philosophers and the like have failed to critically examine the transition for Homeric to Hippocratic medicine.

### **The Hippocratic "Invention"**

The history of medicine in the West begins with the supposition that the great achievement of Hippocrates is found in his rejection of metaphysical medicine (see Cartwright 1972; Lindberg 1992; Longrigg 1992; Mill 1992; Oliver 1930; Porter 1992 and 1997; Siraisi 1990; Rhodes 1976; Wilcocks 1965; and Winslow 1943). "The Greeks invented rational medicine," claims Mill (1992:viii). According to Longrigg (1992a), the "transition from mythological conjecture to rational explanation . . ." was brought about simply because of the philosophical attempt to "explain the world without recourse to supernatural intervention" (1992a:1). If we want to understand the cultural changes that have occurred throughout human history, we must uncover why these people chose to reject their traditional beliefs and adopt a new belief system.

In order to understand the changes that took place during the fifth century BC, we need to examine the Hippocratic tradition and former medical belief systems comparatively. To begin, historians argue that with the emergence of the Hippocratic school of thought the practice of "clinical observation" - common in Western modern medicine - (see Ackerknecht [1955] 1982:55) made its first appearance. Hippocrates is thus hailed for the careful attention paid to recording the symptoms, diagnosis, treatment and prognosis, of sickness, albeit radical for his time, this could hardly have influenced

the beliefs of a society.

Another theme in the history of medicine is the Hippocratic revolt against the metaphysics. According to Nancy G. Siraisi (1990:2) the “Hippocratic medical authors criticized traditional beliefs and attempted to construct causal accounts of health, disease, and physiology that did not rely on magical, theological, or mythological forms of explanation.” Ackerknecht ([1955] 1982:58) suggests that the Hippocratic tradition differed from former traditions because these placed their emphasis “on the practical rather than the theoretical.” In addition, Ackerknecht ([1955] 1982:60-61) suggests that the Hippocratic physician was primarily interested in prognosis and treatment. He was a craftsman.

According to Ackerknecht ([1955] 1982:22ff), medical techniques were well established in the Old World by at least 2000 BC. Evidence for this claim is found in the surviving medical papyruses of Egypt and in the [clay tablet] legal codes of Mesopotamia (Ackerknecht [1955] 1982 pp.22 and 27). Although there is religious influence in all of the ancient Egyptian, Mesopotamian, Chinese, and Greek texts, these peoples did have substantial medical technologies. As suggested by Ackerknecht ([1955] 1982:47), the medical technologies of the Greeks during the Homeric period were well developed because their geographic location allowed for the diffusion of medical knowledge from Egypt, Mesopotamia and the like. By approximately 1000 BC there is mention of Greek physicians in the Homeric epics, and as suggested by Ackerknecht ([1955] 1982:49), this illustrates that individuals who held the name of a physician were respected, knowledgeable craftsmen.

A comparison can be made between ancient Greek medical practices and those of “primitive” societies. It seems that the basic practices that are found in each culture do not differ to any great extent (see Ackerknecht [1955] 1982, 1978; and Mettler 1947). For example, in "Primitive Surgery" (1978), Ackerknecht enumerates the types of medical practices and treatments that are cross-culturally evidenced within “primitive” societies: (1) wound treatment with the use of astringents or disinfectants derived from botanical elements; (2) the suturing and cauterization of wounds, vessels, and viscera; (3) bloodletting techniques; (4) bone-setting practices; (5) caesarean section; (6) amputations of medical, ritual, and judicial motivation; and (7) trepanations. The primitive medical *bricolage* is quite satisfactory in its application although limited. According to Ackerknecht ([1955] 1982), these are also the type of practices that are described in ancient Egyptian and Mesopotamian writings. In addition, these are the medical techniques that diffused from ancient civilizations to Greeks and were thus common during the Homeric era.

As suggested by Bernard F. Stern (1941), “before the practice of medicine could even begin to attain social status as a profession, . . . secular medicine had to be regarded as more efficacious than dependence upon healing by divine intervention” (1941:3). It can be concluded, then, according to the medical historian’s perspective (for example Ackerknecht [1955] 1982; and Stern 1941) that the Hippocratic system was adopted because it was more efficacious than the former medical tradition (also following White 1949 and 1959). The Hippocratic medical system was not efficacious, though! “Most of the cases described in clinical histories in the Hippocratic works end fatally” (Stern

1941:5); and yet Homeric medical beliefs passed into history in favour of the Hippocratic medicine.

The starting point for the medical historian's story regarding medical progress becomes problematic when it is critically examined. We have been told stories about clinical observation, case studies, practice rather than theory, Hippocrates being a craftsman and finally the lack of medical efficacy evidenced in Hippocratic texts. Historians have failed to realize how they have contradicted themselves while telling their story of progress (for example, Stern 1941:3 and 5 passages above).

As suggested by Neve (1995:447), "no idea of tradition, let alone an idea of the 'Western medical tradition' can be coherent without making certain assumptions." Rather than trying to understand why Hippocratic beliefs became part of Greek culture, historians have concerned themselves with inventing a tradition (see Hobsbawm and Ranger 1983; and Neve 1995:482). They have focussed upon those aspects of the Hippocratic tradition that create affinity between modern medicine and its so-called foundation, Hippocratic medicine, for example, clinical observation and rationality. To be sure, observation has always been present. If not how was anything learned in the past? Medical practitioners of *all ages must have observed* cause and effect, unless someone is willing to argue that bone-setting, the use of astringents, suturing, trephining, caesarian section, cauterization and the like are a consequent of *a priori* knowledge.

Consequently, once the idea of observation has been addressed, we are left with the word "clinical". It is my argument that the term "clinical" is a word that has been applied in the same way as "primitive." It makes the stereotypical differences apparent

between the primitive (irrational) and the civil (rational). The term “clinical” conjures images of modern hospitals and the biomedical approach. In other words, medical historians have used the term “clinical,” along with its scientific connotation, to establish a strong affinity between Hippocratic and modern medicine while at the same time differentiating between “primitive” (non-scientific) types of medical practices. In short, the phrase “clinical observation” is being used to invent tradition.

Duffin (1999:66) correctly asserts that “disease concepts are ‘built’ from observations of many individual sufferings of a similar nature.” Logically, then, as long as a society has a disease etiology and medical practice - religious, scientific or the like - there is a process of observation. Duffin (1999:70) invents tradition by assuming that clinical observation is somehow a starting point for the Western tradition. She states that Hippocratic disease descriptions are “classic examples of clinical observation, because they are recognizable as conditions diagnosed today” (1999:70). Duffin, however, assumes what she intends to prove. Her argument is circular and cannot be accepted as a cogent explanation.

Duffin (1999:70) nevertheless goes on to suggest that “Hippocratic pathology predicated, interpreted, and justified diseases and their treatments in concert with the best science of the day - clinical observation and reasoning.” Unfortunately these statements tell us nothing. What Duffin (1999) is really suggesting is that Hippocrates is the father of modern medicine because he observed and used reasoning. This, however, is not any different from past ethnomedical approaches.

Finally, there is the issue of Hippocrates’ naturalization of phenomena and it is

for this reason he has been applauded for introducing rationality to medicine. Briefly, rationality means in accordance with reason (that is, reason established within a given paradigm). Now, if a society believes that disease is caused by the gods, then logically when one is sick they believe that the gods caused it. This is perfectly rational.

Historians of medicine use the term “rational” in a very specialized and stereotypical sense that derives its meaning from our current system of belief, namely Western scientism. Nevertheless, praying to the gods was rational during the Homeric era.

Although Hippocrates’ naturalization is rational according to our current worldview, it may be argued that it was irrational according to the traditional Greek worldview. With the above in mind, one wonders how Hippocrates did not meet the same fate as Socrates for challenging traditional Greek beliefs.

Nevertheless, so we are told by the medical historian, it was not until man cast aside his animistic, mystic and magical beliefs - or as they argue, irrational beliefs - in favour of rational thought, that he could progress to a higher stage of enlightenment. For example, recall that Mill, and Longrigg argue that “the Greeks *invented* rational medicine” (Mill 1992:viii; Longrigg 1992a:1, emphasis added). Siraisi (1990:2) suggests that “rational medicine and rational natural philosophy emerged at about the same time in Greece” and Stern claims that “rational [medical] procedures existed side by side with magical rites and ceremonies” (1941:3).

The complete enumeration of all of the authors who have suggested that there is “rationality” to be found in the Greek medical philosophy would be a labourious, not to mention futile task. While constructing a story of medical history based upon teleology,

medical historians have failed to ask the most important question to understand the development of Western medicine: "How can one explain the decline of traditional beliefs in favour of new beliefs?" In other words, first we have to understand that the Hippocratic medical philosophy *contradicted* the traditional beliefs of Greeks. Traditional Greek culture explained disease in terms of supernatural agency while the Hippocratic medical philosophy offered a natural theory of causation (Lindberg 1992; Longrigg 1992a; Rhodes 1976; and Siraisi 1990). Hippocratic medicine would not been seen as rational, but rather *irrational* according to the traditional beliefs of the Greeks. The medical philosophy of Hippocrates can only be understood, then, or defined as rational when it is viewed retrospectively (Pagel 1985:1). Otherwise, when it is understood according to the traditional beliefs of the period it cannot be seen as the emergence of rationality, but rather as a revolt against an aspect of traditional Greek culture.

In addition to the above, we cannot accept that Hippocratic medicine was more efficacious than the traditional medical practices common to Greek antiquity. Ackerknecht ([1955] 1982:11ff; also 1978), for example, describes the basic types of therapeutics and medical practices that the prehistoric humans would have used. Some of this evidence is based upon paleopathology and other evidence is derived from ethnographic accounts of non-literate, small-scale societies. If one compares the medical practices of the prehistoric period to those of Greek antiquity and through the later Hippocratic medical period, it is clear that there were no medical advantages to be gained from these new practices.



According to Ackerknecht ([1955] 1982, and 1978), there is little difference to be found between the so-called “primitive medicine” and the early Greek medical practices. At the same time, there are no explanations for the adoption of new medical practices. For example, Ackerknecht states that “it has never been fully explained why all of a sudden, more than twenty-five hundred years ago, a small group of people in the Eastern Mediterranean took this important step in human thought” ([1955] 1982:47). Similarly, Charles Wilcocks (1965:16) states that

there sprang, in about the fifth century B.C., a system of rational medicine, based on observation and reason. . . . The striking fact is that there, in a community soaked in tradition of religious medicine, there began this system of dispassionate observation of the phenomena of disease, these attempts at physical cure, and these observations on the influence of environment on the incidence of disease, which own nothing to preconceived ideas of supernatural intervention, and which from the starting point of the fruitful empirical method of scientific inquiry which has eventually liberated the Western world from so many of the disabilities of more primitive life.

It is a problem that many authors have failed to ask the really important question while attempting to present a concise history of the progress of medicine. Some of the questions that need to be addressed are “why did these people change?” and “if the practices offered by the Hippocratics were no more efficacious than former medical practices, how do we explain the adoption of this new medical system?”

“There is no golden thread that runs consecutively and continuously throughout the history of medicine” (Gladston 1981:135). Perhaps, more than any other reason, Hippocrates has been honoured as the father of medicine out of convenience. He systematically recorded his observations and these writings have been passed down throughout the ages; a perfect beginning for a story. This ignores traditions that are oral

and places those societies outside of history. In the end, the history of medicine cannot tell us why traditional beliefs declined and Hippocratic beliefs were adopted in Greek culture. If we are to rectify the essential deficiencies, biases, myths and prejudices in medical history (Gladston 1981 pp.134 and 136), then we cannot be satisfied with making certain assumptions about the Western medical tradition (Neve 1995:477). We need to inquire into the process of change instead of simply accepting the tradition as it has been constructed.

## CHAPTER THREE

### AN ANTHROPOLOGICAL MODEL OF MEDICULTURAL CHANGE

Some authors use the term “ethnomedicine” to describe all those systems of belief regarding health and healing that do not fall within the domain of Western biomedicine. To be sure, Robert A. Hahn (1995:4) defines ethnomedicine as “the part of a society’s cultural system concerned with sickness and healing.” Whether we are discussing the health practices of non-Western people, who may be practicing theurgical medicine (see Ackerknecht 1978 for a discussion), or the highly technoscientific practices of the West, we are discussing the practices employed to treat sickness based upon a society’s beliefs (Hahn 1995, and Sigerist 1960). Consequently, medicine understood for what it is, a cultural system, falls within the domain of anthropology.

In this chapter I construct a model of “medicural change” based upon anthropology rather than produce a narrative that affirms traditional medical history as it has been told by medical professionals. I define “medicural change” as *the process of the adoption of a new set of cultural beliefs regarding health and the practice of healing within a given society, or community*. In addition, it must be stressed that this definition does not exclude any beliefs regarding health that may be of a religious or metaphysical nature because “in many traditional, non-Western societies the domain of medicine is not clearly differentiated from that of religion, politics, and the rest of social life” (Hahn 1995:4).

## **Cultural Change: a Brief Overview**

Historically, theories of cultural change have followed the lead of evolutionary theory. In spite of the obvious differences between physical and cultural evolution, the analogy has served as a model for understanding cultural change. Wallace (1956:265) has advised that while constructing these theories it has been assumed that cultural change, like physical evolution is a slow and gradual process. The terminology used to explain cultural change needs to be clarified, however. On one hand there is evolution, and on the other there is what has been referred to as revitalisation (Wallace 1956). This is where cultural anthropology departs from the analogy borrowed from physical anthropology. Although cultures can and do change over a long period of time, change within a culture can occur quite abruptly whereas evolution does not occur abruptly.

Although I have argued in favour of an anthropological approach to medical history, it must be noted that many anthropological models that explain cultural change are problematic because they do not account for rapid cultural change or multiple influences (external and internal). As I have outlined in chapter two, the first theories regarding cultural change were offered by the Cultural Evolutionists: Spencer, Tylor, Morgan and Frazer. Boas' Historical Particularism contributed to the decline of Cultural Evolutionary theory, and a variety of new theories regarding cultural change emerged with it.

With the decline of cultural evolutionary theory, North American anthropologists found interest in theories of acculturation and diffusion as the key processes of cultural change (Hatch 1997:95). The Cultural Ecologist, Julian Steward ([1955] 1973),

criticised diffusion because it implied that cultural change can be explained as a product of historical accident, or in other words, by chance (Hatch 1997:95). Cultural ecology (Steward [1955] 1973), in contrast, suggested that cultural change can be understood as successive adaptations to a particular environment. According to cultural ecology, “in principle . . . it should be possible to predict how a society will change over time as a response to certain environmental conditions” (Hatch 1997:95; also see Steward [1955] 1973:3).

A strong argument against cultural ecology points out that the theory assumes that “all people will respond the same way under the same circumstance, and that such features as cultural values and beliefs do not play a significant role in influencing cultural change” (Hatch 1997:95). According to Elvin Hatch (1997:95), an alternative to cultural ecology amends the ecological position by suggesting that “the environment is culturally mediated.” The world is not experienced directly, then, but rather through cultural systems of thought. It is thus argued that people of a different culture will respond to the world in different ways. This, however, tells us nothing about the process of cultural change, nor does it offer a model for cultural change.

Outside of the North American brand of anthropology, during the 1920s-1950s the British social anthropologists informed by Durkeimian sociological theory such as Bronislaw Malinowski and A. R. Radcliffe-Brown developed Functionalism. Functionalist theories assumed that cultures are stable. According to Functionalism, if cultural change takes place, then it is the result of external influences. Although it is difficult to deny the idea of function, Functionalism does not account for change as a

result of the society's culture or internal influences. If we are in any doubt of internal influences having a role in culture change, consider Celil G. Helman's concept of culturogenic stress (see Helman 1990:30ff).

Another theory of [cultural] change that has been considered is McNeill's 'equilibrium theory' as presented in *Plagues and Peoples* ([1976] 1998:25ff). McNeill generalizes from an organic model and argues that this exceedingly complex process has guided and affected the success or failure of any given system. More specifically, he suggests that

at every level of organization - molecular, cellular, organismic, and social - one confronts equilibrium patterns. Within such equilibria, any alteration from outside tends to provoke compensatory changes throughout the systems so as to minimize over-all upheaval, though there are always critical limits which, if transgressed, result in the breakdown of the previously existing system. Such a catastrophic event may involve dissolution into simpler, smaller parts, each with equilibrium patterns of its own; or on the contrary, may involve incorporation of smaller parts into some larger or more complex whole. [McNeill (1976) 1998:25-26]

Although this theory is initially attractive because of its ability to generalize broadly (and perhaps because of its similarity to revitalisation theory; see Wallace 1956:265), this is its methodological downfall. For example, McNeill ([1976] 1998) in his musings on plagues and peoples has not developed a systematic understanding of the role of epidemics in human history according to the model he has offered. In the end McNeill ([1976] 1998) has failed to explain how this model operated in the face of disease and to elaborate on the process of adaptation.

Albeit very brief, this synopsis of cultural change theory demonstrates that the problem with anthropological theories regarding cultural change is that no single theory

can be applied universally, although each claims universality. There is no single theory that can be applied to cultural change, cross-culturally, without engaging in extensive anthropological debate. To be sure, we only need to recognize the plethora of contrasting theories offered in the history of anthropology. They all have made excellent arguments for their particular brand of anthropology. Take for example Steward's theory of cultural change. We cannot deny that the environment has an effect upon cultural change (a tenant of this thesis), however, based upon my research here I cannot accept the idea that all cultures will respond the same way to a specific environmental factor - this will be illustrated in subsequent chapters. In the end, the lack of attention paid to internal factors - for example, culturogenic stressors (Helman 1990) - make this theory problematic.

If there are aspects of each theory that are useful, it might be suggested that the theories should be synthesised. Unfortunately, the resultant theory would not be parsimonious. Furthermore, if it becomes my task to cut and paste, that is, construct a theory of cultural change from a multiplicity of theories and perspectives, then the objective of this thesis will never be fulfilled. Consequently, I find it necessary to turn away from the traditional theories for cultural change and look elsewhere for a model.

As noted by an anthropologist:

many of the really interesting ideas of scientists are not the product of original field or laboratory research. They are, rather, the application of powerful concepts derived from other fields of knowledge or from the general intellectual milieu of the time to an already defined issue. [Wallace 1966:39]

## **Culture: the Paradigm and the Anthropology of Religion**

It is basic in anthropology that humans have adapted to their environment through biological and cultural change. I am concerned with the latter of these two adaptations, namely culture. Within this category it is argued that humans have adapted to their environment through technology and the like; this is material culture. On the other hand, there are those beliefs and meanings that are shared by a society. E. B. Tylor asserts that culture is a “complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by a man as a member of society” ([1871] 1974:1).

In *Religion, an Anthropological Perspective* (1966), Wallace reminds us that it is difficult to discuss the sociocultural functions of religion without mentioning the name of three scholars (Emile Durkheim, Max Weber, and Talcott Parsons), conventionally regarded as sociologists, who have made important contributions to our field (1966:25). Following the work of the Symbolic Interactionist, Weber, then, Clifford Geertz refers to culture as the “webs of significance people both spin and are caught up in” (Lindholm 1997:215). These “webs of significance” are the essence of human social life. They offer “believers a sense of purpose and agency within a world rendered orderly and meaningful” (Lindholm 1997:215). In other words, the total culture of a society provides people with a *weltanschauung* (worldview) - or what some authors have referred to as a paradigm or ideology (Barfield 1997, Geertz 1965; Kuhn 1970; and Townsend 1984) - that is used to predict and prescribe in attempt to bring order to chaos. As suggested by Hahn (1995:4), then,



the total culture of a society consists of several cultural systems - for example, science religion, economics, and medicine - each of which may be thought of having three basic features: a distinctive domain of knowledge and practices; a means of socialization . . . ; and an arena in which the activities of this domain are conducted.

### **Religion and the Paradigm**

In "Religious Perspectives in Sociology and Social Psychology" ([1952] 1979), Parsons suggests that religion is a universal feature of human society. Religion is understood as a set of beliefs, practices and institutions that are responses to human life and situation (Parsons [1952] 1979:63). According to Parsons, religion is an attempt to deal with phenomena that are not understood or already controlled by material culture. It is through the religious belief system, then, that people attempt to order and control chaotic aspects of human life (Parsons [1952] 1979). Similarly, in "Religion as a Cultural System" ([1965] 1979), Geertz puts forth a comparable understanding of religion. Geertz suggests that

for an anthropologist, the importance of religion lies in its capacity to serve, for an individual or for a group, as a source of general, yet distinctive conceptions of the world, the self and the relations on the one hand - its model of aspect - and of rooted, no less distinctive mental dispositions - its model for aspect - on the other. [(1965) 1979:88]

A paradigm, then, provides a community with a model of reality. It combines a number of cultural beliefs and allows them to see reality in a particular way, and respond to it accordingly. The anthropology of religion, consequently, provides a logical starting point for an inquiry into medicultural change. More specifically, religion and biomedicine are both explanatory systems that inform the members of a society (or

community) how to interpret and respond to phenomena. Let there be no mistake, "like all systems of healing, biomedicine is a cultural product: it is formed in, reflects, and helps to create and re-create social and cultural world views" (Hepburn 1988:59; also cf. Hahn 1995).

Medical beliefs are one facet of culture (like religious beliefs) that are combined with a number of other beliefs to produce a paradigm (a way of viewing and responding to reality). Anthropology, however, is not concerned with the objective truth of any particular belief or explanatory system. Anthropology is concerned with how these systems function within a given society, how they provide meaning for individuals, and how they change or evolve over time (Townsend 1984:138).

### **Failed Paradigms, Revitalisation, and Culturogenic Stress**

In the anthropology and sociology of religion, authors such as Wallace (1956, 1966), Charles Y. Glock (1973), and David Aberle (1972) have provided valuable insight into the development of new religious movements. Although these authors do not specifically deal with the subject of epidemic disease in their treatment of religion, the models that they have offered are cogent and can provide insight into the processes of medicultural change (or continuance) as a result of epidemiological stress.

Joan B. Townsend (1984:137), in "Anthropological Perspectives on New Religious Movements," states that "religion as one aspect of culture, has long intrigued anthropologists." She notes that recent efforts in anthropology have focussed on the rise of new religious movements in Western society instead of religious change as a result of

“contact.” In effect, this drift from traditional anthropological research with non-Western societies has contributed to a model of change that focuses upon *internal rather than external pressures* (Townsend 1984:137).

### **Revitalisation Theory**

As suggested by William A. Lessa and Evon Z. Vogt (1979), Wallace's paper, “Revitalization Movements” (1956), represents a “landmark in anthropological attempts to formulate the general characteristics of major cultural-system innovations that typically involve religious patterns” (1979:422). In this paper Wallace (1956:265) argues that in the past cultural change has been regarded as an “essentially slow, chain-like, self-contained procession of super-organic inevitabilities.” According to Wallace (1956), however, there is another process by which a culture changes, but here change is abrupt. More specifically, a revitalisation movement is an organised attempt to produce a more satisfying culture because the current cultural system is perceived as unsatisfactory (Wallace 1956:265). The revitalisation movement is different from other processes of cultural change (for example, contact, ecology, evolution, drift theory, diffusion, historical change, acculturation) because it involves a conscious effort to bring about an abrupt change in the culture (Wallace 1956:265).

Wallace suggests that a revitalisation movement is an event that occurs under two conditions, namely stress and disillusionment (1979:424ff). Albeit vague, it is argued that as a result of the decreasing efficiency of stress-reduction techniques, the members of a population endure a higher level of stress. Moderate levels of stress are tolerable

within a given society; however, once a certain level of stress is reached, alternative stress-reduction techniques are needed and developed (Wallace 1979:425). The development of new stress-reducing techniques emerges out of anomie within the society, for example:

as the inadequacy of existing ways of acting to reduce stress becomes more and more evident, and as the internal incongruities of the mazeway are perceived, symptoms of anxiety over the loss of a meaningful way of life also become evident: disillusionment with the mazeway, and apathy toward adaptation set in. [Wallace 1979:425]

Wallace (1979:425) further argues that if this process of cultural deterioration is not “checked” it can lead to the death of the society (for a discussion of the death of a society see Aberle et al. 1950). According to Wallace, the purpose of the revitalization movement is to perform a number of tasks that will circumvent the decay of a society by revitalising the culture.

In *Religion, an Anthropological Perspective* (1966:158ff), Wallace suggests that there are four stages in a revitalisation movement: (1) the steady state, (2) the period of increased individual stress, (3) the period of cultural distortion, and (4) the period of revitalisation. In steady state, a society will respond to stress through its current belief system (the mazeway according to Wallace 1956) or by adopting new stress reduction techniques. It is argued that the

gradual substitution or even rapid modification of techniques for satisfying some needs may occur without disturbing the steady state, so long as (1) the techniques for satisfying other needs are not seriously interfered with, and (2) abandonment of a given technique for reducing one need in favor of a more efficient technique does not leave other needs, which the first technique was also instrumental in satisfying, without any prospect of satisfaction. [Wallace 1979:424]

According to Wallace, this process of cultural augmentation will keep the society within the tolerable limits of stress (1979:424).

Anomie and disillusionment are characteristic of the second stage of revitalisation theory (Wallace 1966). Anomie and disillusionment occur when the “sociocultural system . . . is progressively pushed out of equilibrium by various forces, such as climatic and biotic change, epidemic disease, war and conquest, social subordination, or acculturation” (Wallace 1966:159). In addition, Wallace argues that as the stress reduction techniques decrease in efficiency because of the stress the various external forces has exerted upon the society, “the failure of the system to accommodate their needs . . . are placed under intolerable stress” (1966:159). As individuals begin to perceive their culture as inadequate and disorganised, anomie and disillusionment ensues.

As a result of intolerable stress, it is hypothesised that the individuals of a society will attempt to restore personal equilibrium through various “psychologically dynamic regressive innovations” (Wallace 1979:425). Alcoholism, venality, breaches of mores, and scapegoating are some of the types of behaviour that are evidenced during this stage (Wallace 1966:159). Wallace argues that once the attempt to restore the sociocultural equilibrium has thoroughly distorted the society’s culture, “symptoms or anxiety over the loss of a meaningful way of life becomes evident: disillusionment with the maze, and apathy toward problems of life, set in” (1979:425).

Following the ‘Period of Prolonged Cultural Distortion’ (Wallace 1956, 1966) there will be a period of revitalisation or “the population will either die off, splinter into

autonomous groups, or be absorbed into another, more stable, society” (Wallace 1966:159-160). It is during this phase that individuals will attempt to revitalise the culture through a new system of belief. Wallace (1966:160) suggests that the following functions must be completed, however, if revitalisation is to be successful: (1) formulation of a code, (2) communication, (3) organisation, (4) adaptation, (5) cultural transformation, and (6) routinisation.

Briefly, the first function requires that a ‘goal culture’ is contrasted with the existing culture. “Connecting the existing culture and the goal culture is a transfer culture - a system of operations which, if faithfully carried out, will transform the existing culture into the goal culture” (Wallace 1966:160). In an effort to make converts, the code must be communicated in an evangelistic spirit. “Benefits promised to the target population need not be immediate or materialistic, for the basis of the code’s appeal is the attractiveness of identification with a more highly organized system. . . . (Wallace 1966:160). Once the code has attracted converts “it differentiates into two parts: a set of disciples and a set of mass followers. The disciples increasingly become the executive organization, responsible for administering the evangelistic program, protecting the formulator, combatting heresy, and so on” (Wallace 1966:161). The code must be able to adapt to changing circumstances, consequently it is the objective of the disciples to rework the code. If the revitalisation is successful there will be a “drastic decline in quasi-pathological individual symptoms of anomie and by the disappearance of cultural distortions” (Wallace 1966:162). This stage is marked by the adherence of a substantial portion of the local population.

If the preceding functions are satisfactorily completed. . . . the movement's function shifts from the role of innovation to the role of maintenance. If the movement was heavily religious . . . its legacy is a cult or church which preserves and reworks the code, and maintains through ritual and myth, the public awareness of the history and values that brought forth the new culture. [Wallace 1966:162]

As a note, it ought to be remembered that not all revitalisation movements are religious (although Wallace has confined his studies to religion), however there are analogous institutions and mechanisms to those mentioned above.

### **Criticisms of Revitalisation Theory**

Wallace's (1956, 1966) revitalisation theory is vague. For example, he discusses the decreasing effectiveness of a society's stress-reduction techniques as a necessary factor for the development of a new religious movement, however, he never gives an example of such a technique and how it might fail. Wallace (1956) also makes substantial reference to the "needs" of a society and the failure to satisfy these needs although the types of needs are not addressed. Further, the concept of stress in itself is an important factor revitalisation theory. At the outset of his theory Wallace, however, does not explain the different types of stress that may be experienced.

As noted by Wuthnow (1982:52), "conventional accounts of revitalization movements have emphasized social disruption as their source, but not all sorts of disruption produce revitalization." Rather than address this criticism, Wallace (1956, 1966) complacently assumes that factors such as epidemics, war and the like will lead to revitalisation because the sociocultural system will be pushed out of equilibrium and

there will be an attempt to restore the equilibrium. In contrast to Wallace's assumption, during this research I have found that this is not always the case. For example, during the pandemic of the Black Death Muslim and Christian communities did not respond to the epidemic in the same manner (see Dols 1974). This theme will be elaborated upon in chapter five, although it must be noted here that we cannot assume that an epidemic will necessarily cause stress and lead to sociocultural disequilibrium, revitalisation, societal death or absorption by another society. It may, in fact, contribute to cultural continuity (this will be discussed below in "Culturogenic Stress: the Positive and Negative Operation of Culture").

### **A Synthesis: Building Upon the Ideas of Revitalisation**

Although there are some problems with Wallace's (1956) theory of revitalisation, they are not substantial enough to abandon the model entirely. There is another model - Glock's (1973) model of relative deprivation - that complements Wallace's model. When the two models are combined, the process of revitalisation is explained more succinctly than either theory is capable of doing singularly.

Beginning with the question, "what accounts for the rise of new religious groups in society?" Glock (1973:207ff) argues that while the sect-church theory fails to account for the diverse forms of new religious movements, its idea of deprivation is useful. "Deprivation, as we conceive it, refers to any and all of the ways that an individual or group may be, or feel disadvantaged in comparison either to other individuals or groups or to an internalized set of standards" (Glock 1973:210). Sect-church theory limits itself,



however, by only recognizing one from of deprivation - economic - as the cause for the rise of new religious movements. In an effort to expand the explanatory ability of deprivation theory, Glock (1973:210-12) suggests that there are five kinds of deprivation that can be experienced: economic, social, organismic, ethical, and psychic (psychological).

According to Glock (1973:212), although deprivation is a necessary prerequisite for the rise of any social movement - religious or secular - there are additional conditions that need to be met. Consequently, a revitalisation movement will not develop unless three conditions are met: (1) shared deprivation; (2) alternative institutional arrangements for a solution are not perceived; (3) leadership must arise with an innovative idea (Glock 1973:213ff; Townsend 1984:142).

#### *Stage One: Shared Deprivation*

As noted by Townsend (1984), if a revitalisation movement develops it depends upon a group of people sharing the deprivation. Social and economic deprivation respectively refer to the differential distribution and limited access of income or highly regarded attributes in one's society (Glock 1973:210). Organismic deprivation refers to the deprivation of physical or mental health. "People who are blind, deaf, mentally ill, chronically ill and so on may experience organismic deprivation" (Townsend 1984:141). "Ethical deprivation occurs when an individual feels that the society's dominate values do not give him a meaningful way of organizing his life" (1984:141). Finally, psychological deprivation refers to a dissatisfaction with the current culture or an aspect of it. "A likely response to psychic deprivation is the search for new values, a new faith,

a quest for meaning and purpose" (Glock 1973:212).

*Stage Two: No Alternative Perceived for a Solution*

Although this second stage begs the question, that is, it assumes what it intends to prove - the development of a new system of belief - I think that what is meant is more like psychological deprivation. In other words, in this stage there is a failure on the part of institutions, or better yet, some aspect of the cultural paradigm, to effectively deal with the deprivation.

Wallace's (1956, 1966) failure to address the reasons that the mazeway becomes ineffective can be discussed here alongside of deprivation theory. What can be suggested, then, is this: Wallace has suggested that "anomie and disillusionment become widespread as the culture is perceived to be disorganized and inadequate" (1966:159). The reason for this dissatisfaction with culture is because culture has failed to perform two essential functions. Drawing upon the definition of culture, the first function is epistemological (see Geertz's definition of culture and religion in this chapter). In other words, culture needs to explain the phenomena with which humans are confronted.

The second function of concern is the given efficaciousness of the belief system in question. For example, if a system of belief prescribes placing Homer's *Iliad* under the head to relieve a headache and it does not work, then the culturally prescribed treatment fails to perform a vital task within the medicultural system. With this failure, there must be an explanation for why it has failed, or the belief will not only fail efficaciously, but it will also fail on the epistemological clause. Once a given system has failed on both accounts, only then will no alternative be perceived. In response to

Wallace's (1956, 1966) ambiguity: Societies, communities and the like become dissatisfied with their culture because culture has failed epistemologically and efficaciously.

*Stage Three: A Leadership Must Arise*

Finally, as noted above, when the old system is no longer perceived as an effective way to explain one's environment, there must be an alternative epistemology that explains the phenomena that has caused the stress (the external factor) and will revitalize the society with a new cultural belief.

As I have already discussed regarding Wallace (1956, 1966), there are also problems with Glock's (1964) model for the development and evolution of new religious groups. For example, Glock (1973) assumes that following relative deprivation, the society will be revitalised if the former stages are met. Consequently, Glock has failed to take into consideration the possibility of the death, absorption, or fraction of a society (Wallace 1966, McNeill [1976] 1998).

**The Relative Deprivation Model and Revitalisation Theory**

As noted above, there are three stages (Glock 1973) that must be met if a revitalization movement is to develop. I suggest that the following conditions (Wallace 1956, 1966) are correlated with the relative deprivation model in order to understand cultural change as a process of revitalisation, which is initiated by epidemic disease: Wallace's *Steady State* is assumed as the initial state of a society. With the onset of an external factor, such as an epidemic, some members of the society will undergo *social*,

*economic, organismic, ethical or psychological deprivation* (Glock 1973). Deprivation will lead to *increased levels of stress* for some individuals (Wallace 1956, 1966). This *shared deprivation* (Glock 1973) will *progressively push the sociocultural system out of equilibrium* (Wallace 1966). With extreme pressures this level of deprivation will increase as some *individuals attempt to restore personal equilibrium by adopting socially dysfunctional expedients* (Wallace 1966). Following such behaviour and piecemeal attempts to restore the equilibrium, *the culture will become distorted* (Wallace 1966). Traditional explanatory systems will fail efficaciously and epistemologically - no *alternative institutional arrangements for a solution are perceived* (Glock 1973). Following the period of severe cultural distortion and the lack of alternatives, the society will either *die off, be absorbed or breakdown into autonomous groups* (Wallace 1966). This end can be *circumvented by the adoption of a new set of beliefs that will revitalise the culture* (Wallace 1956, 1966; Glock 1973).

With this understanding of 'revitalisation movements' the following can be stated about communities experiencing epidemics: An epidemic presents a challenge to any cultural paradigm. If the paradigm cannot explain the epidemic and offer a course of action, the levels of stress will increase. Once they have reached critical levels there will be an *attempt* to create or adopt a new paradigm and revitalise the culture.

### **Culturogenic Stress: the Positive and Negative Operation of Culture**

Unless we erroneously assume that any society which is faced with a stressor, such as epidemic disease, will undergo a process of revitalisation or is somehow

ultimately doomed, cultural continuity needs to be discussed. In a distantly related discussion regarding health and culture, Helman (1990:304ff) states that “while culture can protect against stress, it can also make it more likely. . . . [as such] there are both *negative and positive sides* to belief (1990:303-304, emphasis added). Culture, then, can operate positively or negatively. In the first case, in situations where the culture operates and explains the stressor in positive terms (a positive epistemological function) cultural continuity will prevail. However, if the society’s culture explains the stressor in negative terms and promotes chaos, then competing systems of belief are given the opportunity to gain acceptance, and the culture will undergo a change. This final type of change resulting from the negative influence of culture can be referred to as *cultrogenic stress*, that is: stress produced by culture (following Helman 1990).

### **The Sociocultural Effect of Epidemics versus Pandemics**

It is worth pausing to consider whether or not there are any differences between the effect an epidemic or pandemic has upon a culture. In chapter six (page 118ff) I rejoin this topic and examine whether or not people in the past feared “pandemics”, and if they did, how fear shaped their response to lethal disease.

The term “pandemic” (fr. Greek *pan*, all + *demos*, populace) refers to a disease which affects a substantial percentage of the population over a wide geographic area and period of time. In contrast, an “epidemic” (fr. Greek *epi*, upon + *demos*, people ) refers to a disease that affects many people within a specific geographic region over a short period of time. *Geography* and *duration*, then, are the features that define whether a

disease is an epidemic or pandemic.

### **The Geography of Disease**

If one is to consider whether or not a *pandemic* will affect people psychologically (that is, create fear), then it is logically necessary to assume that the people in question are aware of the geographic nature of the disease. Generally speaking, people will fear death if they have witnessed disease annihilate a neighbouring village. To fear a pandemic, however, implies that one is aware of the geographic nature of the disease. Without geographic knowledge disease is feared because of the mortality witnessed. It is therefore necessary to ask whether or not Europeans had geographic knowledge of the plague elsewhere; otherwise, any example referring to the psychological effects produced or not produced by a pandemic is *non sequitur*.

### **The Duration of Disease**

Aside from geography, a pandemic can have a greater sociocultural effect upon the society in question because they tend to have a longer duration than epidemics. The duration of disease, then, can affect the explanatory ability of the culture. With increased duration, the explanations that are offered for the disease will be tested through time. For example, if the duration of disease is short, the explanations that are offered for the disease may be perceived as effective if they correlate with the end of the epidemic. However, the impact a virgin-soil epidemic cannot be underestimated because of the associated mortality rates.

## CHAPTER FOUR

### AN EPIDEMIC IN ANCIENT GREECE: THE DECLINE OF HOMERIC MEDICULTURE AND THE SUBSEQUENT REVITALISATION OF GREEK SOCIETY

Although a model for medicultural change has been offered, it is necessary to examine the cultural milieu where the new medical beliefs developed. By doing so, the application of this model will be grounded through case study.

An attempt might be made here to ask whether or not the Greeks believed in their myths; however, such an approach implies the possibility that ancient Greek civilisation existed without an explanatory system. It is possible that the Greeks, who are known if for nothing else other than their philosophical inquiries, did not attempt to explain the phenomena that they experienced prior to the philosophical movements. Did they have other gods than those that are described and depicted in their poetry, literature, art, sculpture and material culture? Let us recall that Hippocrates swore by the gods in his Oath, and Socrates was sentenced to death for not believing in the gods of Athens.

In *The Healing Gods of Ancient Civilization* (1925), Walter Addison Jayne confidently states that “scattered references in *The Iliad* and *The Odyssey* make it clear that in the early period the Greeks believed that the deities sent disease and death upon mankind in anger and revenge. . . .” (1925:201). It might be argued, though (following Porter 1997), that in the same way that Westerners go to the ballet, the theatre, or the opera, for example, so too did the ancient Greeks, thus collapsing any argument in favour of the Greeks’ beliefs being based upon such forms of evidence. The problem with

taking such a position is that it forces the investigator to search for evidence of another belief system and reject *prima facie* evidence for the gods of Greece. Alternately, it forces us to consider the possibility that ancient Greece was without gods, which also discredits all other authorship in Greek antiquity that speaks of the gods.

In the *Sacred Disease* the Hippocratic author “dismisses the explanation of disease as being due to the personal intervention of a deity” (Jouanna 1999:189). In this statement, then, the Hippocratic author has presented us with ethnographic information regarding the culture of ancient Greece. There is no question that medical beliefs in Greece were intertwined with religion; otherwise, Hippocrates’ refutation in the *Scared Disease* would be absurd.

With the above said, I do not dismiss the fact that we must be careful about the information that we derive from the literary sources of antiquity because they were not intended to be historical accounts (cf. Sigerist 1961). In the same way, however, that we can derive sociocultural information about Victorian-England by examining Charles Dickens’ *Hard Times* (1854), we can gain similar types of information from *The Iliad*, *The Odyssey* or the like. This is the ethnohistorical approach.

### **Medicultural Steady State in Ancient Greece**

In the epic poetry of Homer and Hesiod, in the literature of Herodotus, and Thucydides, and in the plays of Aeschylus, Sophocles, and Euripides, the gods of Greece are seen as the cause and cure of disease. From an anthropological and epidemiological point of view, it is interesting to note that not only did the god Apollo *send* disease for



punitive purposes, but, more importantly, he also *cured* epidemic disease (for example, see *The Iliad*, I.10ff, I.93ff, XIII.667, XIII.670, XXIV. 601ff, and *The Odyssey*, V.397, XV.408 for disease sent by Apollo and *The Iliad* I.520-550, V.99ff, V.305ff, V.447ff, XVI.514ff, and *The Odyssey* V.394ff, XV.411ff for diseases that are cured by Apollo). This is of anthropological importance because in the ancient texts from which we are deriving our ethnohistorical information regarding Greek culture, there is consistency between what they *believed* and what they *experienced*. This [perceived] consistency constitutes a worldview that meets the criteria for a cultural steady state. In other words, whether or not the gods actually cured the diseases that they sent is irrelevant (cf. Townsend 1984); however, the *belief* that the gods caused and cured disease fulfills the epistemological and efficacious criteria for a steady state, which has been outlined in chapter three of this thesis.

In addition to the fulfilment of the criteria above, there must have been an acceptable level of congruence between belief and the phenomenological world; this is also of epidemiological interest. In other words, according to revitalisation theory, if the Greeks believed that the gods sent and cured epidemic disease, then the epidemics must have either been cured, or an alternative explanation for the failure of the gods to cure the epidemic disease must have been offered. If the belief system cannot offer an explanation for the incongruence between belief (*what ought to be the case*) and phenomena (*what actually is the case*) the belief system will fail efficaciously and epistemologically, thus disturbing the steady state. With this dichotomy in mind, anthropologically we are forced to ask: (1) whether or not the gods cured the epidemic

(that is, if the disease disappeared), or (2) if an explanation was offered for the failure of the gods to act and cure the epidemic.

In addition to the two questions above, a further question of epidemiological interest can be posed, namely: "Was the so-called epidemic was severe enough to affect the society's culture?" Some authors have argued that because Apollo has been referred to as "Smintheus, god of the plague" in *The Iliad* (I.45), the Homeric plague was bubonic because "Smintheus" means mouse-god (Knox 1990:678). In *The Iliad* (I.50-77) we are told that Apollo heard Phoebus' prayers for the theft of his daughter and

down he came like night. . . . First he went for the mules and circling dogs but then, launching a piercing shaft at the men themselves, he cut them down in droves. . . . Nine days the arrows of god swept through the army. . . . let us question a holy man, a prophet. . . . to tell us why Apollo rages so. . . . [and if] Apollo might be willing, still, somehow, to save us from this plague.

If the plague that is noted in the first book of *The Iliad* continued to strike-down men, then we would expect an epistemological crisis as noted above. To be sure, if the plague persisted, there would have been a discrepancy between belief (what ought to be the case) and phenomena (what actually is the case). The gods' role in disease was not challenged until the rise of Hippocratic medicine. This implies a congruence between belief and the phenomenological world in Homeric Greece, therefore, it is unlikely that the disease described in *The Iliad* was bubonic plague. If the disease was bubonic plague or an equally destructive disease, the outcome of the plague would not have been so modest nor would it have left the belief system completely intact. Logically, then, it can be argued that because of the moderate impact of the disease upon the lives of the Greeks, they attributed its withdrawal to the will of the gods.

Greek culture, or mythology as most authors prefer to refer to it, fulfills the epistemological and efficacious criteria for a medicultural steady state. It provided them with a shared system of belief that explained the phenomena that they experienced. In Geertzian terms, it provided them with a “model of and for reality.” Lest this anthropology be naive, this does not mean that the ancient Greeks did not witness breaches between belief and phenomena either. Surely, people died from diseases that ought to have been cured by the gods. As noted by Wallace (1956 and 1966; also McNeill [1976] 1998), though, a certain amount of stress is tolerated in any given system, and so long as the critical limits of stress are not transgressed (McNeill [1976] 1998), a steady state will prevail.

### **The Period of Increased Stress: an Epidemic of Disease**

In the *History of the Peloponnesian War*, Thucydides informs the reader that the Plague of Athens (or alternately, the Plague of Thucydides) arrived from the south. Let there be no confusion: this is not the plague that Hippocrates apparently ended by setting a series of fires that purified the air (in contrast to Clendening 1942:13). According to Jouanna (1999:32) the Plague of Athens (430- 429 BC) “developed in Ethiopia, was propagated in Egypt, Libya, and thence the majority of the territories of the Great King before finally penetrating Athens through the port of Piraeus. . . .” In contrast, the details in the *Speech of the Envoy* suggest that the plague of the “Hippocratic tradition came from the north, from the barbarian countries located beyond Illyria and Paeonia” (Jouanna 1999:32) and struck during the years 419-416 before the common era.

An epidemic, then, which took an unprecedented toll upon human life fell upon Athens in the summer of 430 BC (Thucydides in Warner 1954:151). The mortality that resulted from this external stressor caused the disintegration of the traditional Greek mediculture that sustained the prior steady state. For example, according to traditional Greek mediculture disease was sent and cured by the gods, however, “as for the gods, it seemed to be the same thing whether one worshipped them or not, when one saw the good and the bad dying indiscriminately” (Thucydides in Warner 1954:155).

When the epidemic first struck Athens, the traditional medicultural beliefs were employed; however, the result was not epidemiologically efficacious. People consulted the oracles, prayed in the temples to the gods, and physicians attempted to cure the disease, but they were all equally useless (Thucydides in Warner 1954:152). According to Thucydides’ testimony, when the epidemic struck the citizens of Athens attempted to address the external stressor with their traditional mediculture, but those methods were not effective.

In addition to the medicultural practices not being physically efficacious, the system was losing epistemological ground as the discrepancy between belief and phenomena grew. For example, Thucydides describes an epistemological challenge that was brought to the traditional beliefs by noting that “what did good to some, did harm to others” (Thucydides in Warner 1954:154). How could this be? The disease defied explanation. Thucydides explains that “those in perfect health suddenly began to have burning feelings. . . . there seemed to be no reason for the attacks. . . . strong and weak were equally susceptible. . . . some died in neglect, some in spite of every possible care

being taken of them” (1954:152-154). The inability to explain why the disease did not discriminate between good and bad, healthy and unhealthy, and the like caused an epistemological crisis which resulted in intolerable stress among Athenians.

Thucydides explains that “in the end people were so overcome by their sufferings that they paid no further attention to such things” (Thucydides in Warner 1954:152). They realised that any appeal made to deities through prayer or worship, through any human art or science, or through the efforts of the physician was futile. The traditional mediculture was perceived as inadequate. Consequently anomie and disillusionment began to set in as the revitalisation model predicts. For example, “the most terrible thing of all was the despair into which people fell when they realized that they had caught the plague; for they would immediately adopt an attitude of utter hopelessness. . . . (Thucydides in Warner 1954:154).

### **A Period of Medicultural Distortion**

Following the model of revitalisation, anomie and disillusionment set in as a result of the culture being perceived as inadequate. Attempts to restore the cultural equilibrium by adopting socially dysfunctional expedients lead to a continuous decline in organisation (Wallace 1956, 1966). There are no exceptions to be found with the plague of Athens. To be sure:

an unprecedented state of lawlessness was owed to the plague. . . . the catastrophe was so overwhelming that men, not knowing what would happen next to them, became indifferent to every law of religion or of law. All the funeral ceremonies which used to be observed were now disorganised. . . . people now began openly to venture on acts of self-indulgence which before they kept in the dark. . . . As

for what is called honour, no one showed himself willing to abide by its laws. . . . No fear of god or law of man had a restraining influence. [Thucydides in Warner 1954:155]

The passage above describes a society that has lost hope and that has abandoned the laws as in the Homeric texts such as honour and heroism. In the section of the *History of the Peloponnesian War* that deals with the plague, Thucydides does refer to some acts of heroism by those who did abide by the laws of honour, however he notes that such acts of heroism were short lived because these people immediately met with death. Others, seeing the fate of these people, left their families and friends to die alone.

### **The Period of Revitalisation**

In short, as a result of epidemic disease and the inability to provide a functional explanatory system thereby maintaining the steady state, Athenians were subjected to intolerable stress, anomie and disillusionment with their culture. Attempts were made to restore the equilibrium by adopting socially dysfunctional expedients, which led to a continuous decline in societal organisation. According to Wallace (1956 & 1966), this is the critical moment where either the society will be revitalised through the construction of a new mazeway (thus providing a functional explanatory system), or the society will be absorbed by another or else it will die out.

I have demonstrated in earlier chapters that the historians of medicine have failed to ask why the Hippocratic belief system replaced the belief system that was in place prior to it. This is not the concern of historians. It is the purpose and objective, however, of an anthropologist to inquire into the decline of beliefs and subsequent adoption of new

explanatory systems. Why, then, did the Greeks adopt a new system of medical belief? It is not because their belief in the gods was extirpated. Consider the opening sentence of the Hippocratic Oath: "I swear by Apollo the healer, by Aesculapius, by health and all the powers of healing, and call to witness all the gods and goddesses that I may keep this Oath and Promise to the best of my ability. . . . I will be . . . religious in my life and my practice" (Hippocrates in Porter 1997:63). This does not sound like an author who does not believe in the gods.<sup>1</sup>

It is ironic that the very person to whom the death of the Greek gods in medicine is attributed is a descendent of them. As I will illustrate below, Hippocrates did not kill the Greek gods, nor did they wither from Greek culture; but rather their authority, or better yet, their role in human affairs was diminished much in the same way the philosophers of the Enlightenment shifted the epistemic authority from the Church in matters of natural philosophy. Although authority was removed in a particular domain, the gods nevertheless exist in each case.

It is true that Hippocrates rejected the role of the gods in health and sickness - we only need to consider the subject matter of his text, *The Sacred Disease*. If we examine the pottery, coins, art, sculptures, and architecture in Greece following the period that Hippocrates flourished it is evident that the gods did not disappear from Greek material culture. Of course the gods still existed, but during the plague the gods failed to respond to the pleas of Athenians, consequently, the people lost faith in their mediculture. The Hippocratic medical system revitalised Greek society not necessarily because it was more efficacious than the former mediculture, but rather because it provided an

epistemological framework that explained the epidemic in different terms without challenging an entire system of belief.

### **Hippocrates: Myth or Revitaliser?**

Hippocrates was born into an aristocratic family on the island of Cos in 460 BC (Jouanna 1999:10). He is said to be a descendent of Heracles and the seventeenth (to nineteenth) male descendent of Asclepius who is described in the “cyclic poems, which completed the *Iliad* and the *Odyssey*” (Jouanna 1999:11-12). Although Hippocrates’ lineage is divine in origin and intertwined with the epic poetry of Homer, it is argued that Hippocrates nevertheless existed. According to Jacques Jouanna (1999:5; and Clendening 1942:13), Hippocrates’ existence is evidenced in the ancient writings of a younger contemporary, Plato, in his *Protagoras* and *Phaedrus*, and in Aristotle’s *Politics*.

Although Ackerknecht ([1955] 1982:55) states that Thucydides mentions Hippocrates in his *History of the Peloponnesian War*, there is no reference or description as explicit as Ackerknecht would have us believe. A single sentence from the writings of Thucydides leads one to assume that Hippocratic medicine may have already been developed: “every kind of bile that has been given a name by the medical profession” (Thucydides in Warner 1954:152). It is not reasonable, however, to assume that Thucydides’ reference to bile necessarily implies our physician in question. To be sure, we know that Hippocrates was not in Athens during the plague of 430 BC and he does not refer to this plague in any of his writings (see Rosen [1958]1993:6). It would be curious that a physician who has been praised for his astute observations and meticulous



details missed an event of such magnitude. Finally, according to Jouanna's calculations, Hippocrates did not leave the island of his birth until the decade after 430 BC when he had reached full maturity and had raised two sons and married his daughter to Polybus (1999:10, 27). In all likelihood, it is Empedocles that Thucydides is referring to (see Clendening 1942:39 for a discussion).

According to Ackerknecht, although Hippocrates lived during the years 460-379 BC (also Porter 1997:55), he managed to "flourish" between the victory of Salamis (480 BC) and the Peloponnesian War in 431 BC (1982:55). While examining this discrepancy between Hippocrates' life and writings, Ackerknecht oddly concludes that "it can no longer be maintained that the Hippocratic physicians were the successors and pupils of the priests of Asclepius. . . ." (1982:49). I say that this is an odd conclusion because the logical consequence that ought to have been drawn is that we can no longer assume that Hippocrates wrote the Hippocratic texts if they were written twenty years before he was born! Alternately, we can conclude that the dates ascribed to the texts are faulty given the precise knowledge regarding his birth date (see Jouanna 1999:10 for a discussion).

In addition to the above, we cannot assume that the Asclepiad tradition was well established prior to the fame of Hippocrates, at least in the way that Hippocrates presented it. This is an important claim because if the Hippocratic explanatory system was founded upon the same beliefs as the Asclepiad tradition, and the Asclepiad tradition was well known prior to and during the plague, then it would be absurd to argue in favour of a Hippocratic revitalisation movement while maintaining the position that people had lost faith in the beliefs that Hippocrates was espousing. To be sure there was

a revitalisation, “in the *popular mind* . . . the divine Hippocrates, who cleansed the earth and sea . . . of beastly wild disease, [in his death] had become the equal of Heracles” (Jouanna 1999:37, emphasis added).<sup>2</sup>

There are a number of contradictions in the scholarly portrayal of Hippocratic medicine. For example, let us assume that the best physicians in Greece prior to the Hippocratic movement were the Asclepiads, as Jouanna (1999) argues based upon *The Speech of the Envoy*. Jouanna further suggests that “there was no official medicine” in Greece prior to the Hippocratic movement, and “by the end of the fifth-century [Hippocrates] was known for his teaching and that he was already the *paradigmatic representative* of the art of medicine” (Jouanna 1999:43, 188, emphasis added). It is problematic that Jouanna (1999) accepts *The Speech of the Envoy*, constructs an understanding of medical history based upon it while finding “it rather surprising that Herodotus does not mention [the Asclepiad] doctors from Cos or Cindus among the celebrated centers of the age” (1999:43). To be sure, Herodotus only states that the most illustrious physicians of the sixth century BC were of Croton in southern Italy and of a Greek colony in Cryene in Libia (Herodotus in Jouanna 1999:43).

In contrast to Jouanna’s (1999:43) claim that there was no official religion in Greece, Jouanna (1999:188) later argues that “faced with competition from a popular medicine founded on a religious conception of disease, the Hippocratic author categorically denied any possible role in the production of disease for anthropomorphic deities and so rejected any form of therapy that aimed at appeasing the anger of the gods.” In response, to state that there was no ‘official medicine’ in Greece is misleading

because there was a dominant mediculture as I have already argued and Jouanna supports above (1999:188). If we are to accept Jouanna's claim that the Asclepiads were famous prior to the introduction of Hippocratic medicine, then we must conclude that they practised a form of medicine that was not foreign to the beliefs of the Greeks - namely one founded on a religious conception of disease. We know that Hippocrates countered the popular mediculture, which was religious; therefore, he must have opposed the Asclepiadic teachings.

One of the problems when we try to do ethnological work for the past (or ethnohistory) is, of course, the reliability of our sources. For example, although *the Speech of the Envoy* is full of many details, as Jouanna notes, we must remember that this account is biased (1999:9). In other words, *the Speech of the Envoy* was apparently delivered to the Athenian assembly by Hippocrates' son, Thessalus, during the fifth century BC. The circumstances of the speech are not clear; however, Jouanna suggests that it was over a dispute between the island of Cos and Athens (1999:9). In contrast, Herodotus' *Histories* were intended to be just that: a history. And while we must be careful, Herodotus' work does not present an account of a family tradition by a family member, not to mention a questionable situation, which may have called for embellishment. In all likelihood, given that Asclepius was the son of Apollo, it is reasonable to assume that the Asclepiads were famous. With this in mind, perhaps Herodotus neglected to mention them because their medicine relied upon the appeal to the gods rather than medical techniques and procedures.

In Greece, medical knowledge was obtained through patrilineal descent (Jouanna

1999:17-18). It was the father's duty to teach his son the medical tradition that had been passed on to him by his father. Curiously, the family medicine that is described in the *Speech of the Envoy* is not the of the form that Hippocrates practised. For example, a pestilence broke out in the confederate camp during the siege of Crisa, which Hippocrates' sixth ancestor, Nebros, is said to have ended.

Rankling at their suffering and disagreeing among themselves, they turned to the god and asked what they ought to do. He bade them fight, and promised that they would win if they went to Cos and brought back for assistance a deer's child. . . . The Coans were at a loss and did not understand the oracle, but a man stood up, an Asclepiad by family. . . . by common agreement the best physician of the Greeks at that time, whose name was Fawn (Nebros). He said that he believed that the oracle was directed to him. [*Speech of the Envoy* in Jouanna 1999:13]

This passage presents medical beliefs in the same form associated with Homeric medicine. In other words, the gods are still an integral part of Greece's mediculture. If the Asclepiad tradition was based upon a belief system that accorded with Homeric medicine, as it seems to be, we can only conclude that Hippocrates presented a different medical system from what he would have been taught as an Asclepiad.

There is still the question of why Hippocrates maintained the Asclepiad name. According to revitalisation theory, however, this makes perfect sense. For example: "the reformulation of the mazeway generally seems to depend on a restructuring of elements and subsystems which have already attained currency in the society and may even be in use, and which are known to the person who is to become the prophet or leader" (Wallace 1956:270).

## **The Hippocratic Revitalisation Movement: a Discussion**

For the astute Hellenic scholar, a number of inconsistencies will become apparent, one of which is the problem of the Asclepiadic tradition. For example, Jouanna (1999) has suggested that there seems to be rivalry between the Asclepiad physicians and the Asclepiad priests. It is suggested that during the period that Hippocrates flourished so too did the Asclepiad religion, which also dealt with healing. If people lost faith in the gods, and Hippocrates offered a natural explanation rather than the collapsed religious explanation described by Thucydides, how is it that religious beliefs are thriving?

The reason that a problem is perceived between the priestly Asclepiads and the physicians is because we view the tradition of Hippocrates retrospectively. That is to say, the Hippocratic tradition is viewed from a scientific position which assumes that the dichotomy between religion and science, which is evident in science today can be attributed to Hippocrates' efforts. Unfortunately, as I have illustrated in earlier chapters, scholarship in this area always begins with the assumption that Hippocrates naturalised medicine and at the same time ought to be credited with the stark separation between the two domains in present in Modernity. This bias skews our understanding of Greek culture during the Hippocratic period.

To be certain, the authors of the Hippocratic Corpus are careful not to set religion and science against one another (Jouanna 1999:190). One author goes as far as to suggest that the method taken in one of the healing temples did not accord with theory, and he suggests what ought to have been done. The Hippocratic writers do not challenge

the gods in all matters, but rather only those pertaining to health. Moreover, it cannot be forgotten that Hippocrates is also an Asclepiad - doctorally and religiously. With this in mind, it is not implausible that there were two domains to the Asclepiad tradition: the first was religious and the second was the naturalised medicine offered by the Asclepiad physicians.

As noted by Jouanna "the sick had no alternative to apply to Asclepius when physicians could do no more for them by human means, or what came to be the same thing, when physicians refused to treat them, judging their condition incurable" (1999:200). It is not unreasonable to accept that the Hippocratic Asclepiad tradition and the Asclepiad religious tradition could exist side by side without conflict. It would be absurd, though, to suggest that somehow this presents a problem to understanding Greek culture and subsequent revitalisation. For example, biomedical doctors today are Catholic, Muslim, Hindu, and so on. Christians, Muslims, or the like all seek medical attention from a de-mystified science, namely biomedicine. What is brilliant about the Hippocratic system is that in asserting it, Hippocrates did not challenge the authority of the Asclepiads in the religious sector, nor did he challenge their religious attempts to heal. In this light, Hippocrates can be said to have presented a holistic worldview in the Asclepiad tradition. Hippocrates attempted to heal; however, when he had realised that he could do no more, any further help could only be offered through the Asclepiad priests.

In the end, we only need to consider the similarities between Hippocrates and Asclepius to understand that the two traditions were not diametrically opposed.

Examples in Greek material culture illustrate that Hippocrates had strong ties to religion. For example, coins from the centuries following Hippocrates' death bear the first two initials of Hippocrates (III) and his face on one side of the coin, and the sign of Asclepius on the other. This is symbolic of the two sides to Hippocrates: physician and priest. Perhaps even more convincing is the fact that Asclepius became a demi-god during the period of Hippocrates, and following his own death, Hippocrates also gained a godly status (see Jouanna 1999:37).

In short, the Hippocratic movement provides a 'text book example' of a revitalisation movement. All of the components are there; we only needed to expand our understanding of revitalisation in the religious sense to incorporate other explanatory systems; for example, those that fall into the domain of mediculture. Wallace (1956:270ff) outlines the functions of a revitalisation movement that are necessary for its success. Each of these "six major tasks" (Wallace 1956) is fulfilled by the Hippocratic movement.

Briefly, during the reformulation of the mazeway there is a restructuring of societal elements that have already attained distinction by the leader or prophet. Hippocrates is a leader who espouses an older tradition that has already attained currency in the society, and although the beliefs that Hippocrates offers are different from the Asclepiad tradition, Hippocrates nevertheless is an Asclepiad. Communication and organisation, as the second and third major tasks, occurred during the second stage of Hippocrates' life. For example, Hippocrates left the island of Cos and became an itinerant physician because "he wished to expand his experience through examination of

the practices of other lands . . . to learn about their environments” (Jouanna 1999:28-29). During this period Hippocrates “gather[ed] disciples, [who] each assume[d] much of the responsibility for communicating the good word” (Wallace 1956:272). To be sure, there are some sixty Hippocratic writings and scholarship suggests that these are not the work of a single man but rather of a group of people who wrote under their mentor’s name (see Jouanna 1999:56 for a discussion). Moreover, “three orders of personnel” (see Wallace 1956:273) are distinct in this movement: as noted, (1) the *leader or prophet* (given the association with Asclepius perhaps the latter applies), Hippocrates; (2) the *disciples*, for example Polybus and others who wrote under the Hippocratic name; and finally, (3) the *followers*, namely those that adopted this new form of mediculture.

The *Hippocratic Oath* is a creed that crosses the boundary between communication and the fourth major task, adaptation. As noted by Wallace (1956:274), in response to resistance, “the movement may have to use various strategies of adaptation.” Certain treatises may be viewed as responses to the threat of resistance; take for example, the treatise on the *Sacred Disease* and Hippocrates’ treatment of charlatans, soothsayers and quacks. The fifth major task - cultural transformation - is implied, that is given our understanding of Hippocratic history. Finally, Wallace (1956:275) suggests that if the movement is effective in reducing “stress-generating situations. . . the preservation of doctrine and the performance of ritual” is maintained through the movement’s transformation into a church, or in Hippocrates’ case, a medical school.

In conclusion, many authors have been on the verge of approaching the question



of revitalisation and the contribution of epidemics, but their focus has not been anthropological. For example, Pliny the Elder states that

medicine [was] famous in Trojan times, in which its renown was more assured, but only for the treatment of wounds. The subsequent story of medicine, strange to say, lay hidden in the darkest night down to the Peloponnesian War, when [medicine] was restored to the light by Hippocrates, who was born in the very famous and powerful island of Cos, sacred to Aesculapius. [*Natural History*, Book 29]

Pliny the Elder has presented all of the components necessary for a theory of revitalisation. He has alluded to the importance of the epidemic; if only through the Peloponnesian War. Reference has been made to the difference between wound (physical treatment) and the religious approach to healing that dominated the era. Moreover, the fact that Pliny the Elder has referred to the sacred island of Cos seems to imply the recognition that Hippocrates turned away from this tradition and restored medicine to a state that embodied what was excellent about medicine in Trojan times, namely a physical approach to healing. With that said, however, we cannot forget the role of the epidemic and the failure of traditional beliefs. Without such an event it is questionable whether or not Hippocrates' medical philosophy would have been received as well as it was. To be sure, we only need to consider the fate Socrates met for not believing in the gods of Athens.

## **CHAPTER FIVE**

### **ROMAN PAGANISM, THREE EPIDEMICS AND THE RISE OF CHRISTIANITY**

Lest there be any confusion, it cannot be assumed that for every epidemic there will be cultural change. No rigid formula for cultural change is being offered here. Epidemics, though, can create a climate that is ripe for the development of a revitalisation movement which may stimulate cultural change. In addition, we must keep in mind that the movement itself must also fulfil a number of tasks if it is to be successful, and the traditional culture must also fail to perform a number of tasks. To address the question in advance: "What about the epidemic in such-and-such a year?" Perhaps there might have been a revitalisation movement, however it might have failed to perform the tasks necessary to revitalise the society's cultural life, or conceivably the traditional culture in question managed to offer a satisfactory explanation for the crisis that circumvented cultural change.<sup>3</sup>

Greek mediculture was not only popular in Greece, but it also diffused into Rome where it gained substantial acceptance (Porter 1997:69). For instance, "as Rome's power and prosperity increased, its leisured class began to appreciate Greek achievements in literature, philosophy, politics, and the arts" (Lindberg 1992:134). While Porter (1997:79) suggests that Greek "therapeutics changed little" as they diffused into Rome, we cannot forget that Rome was a syncretistic society. In other words, as the Roman Empire conquered new nations they often incorporated the beliefs of the conquered people into their own explanatory system. For example, Merry E. Wiesner, Julius R.

Ruff and William Bruce Wheeler (1993:67) argue that the Romans incorporated the gods of other people into their own belief system because they believed that these new gods would make the Roman state stronger. The Roman Empire not only employed the Greek's naturalised medicine, but also restored the authority of the Greek gods in matters of health and sickness.

### **The Rise of Christianity and Revitalisation**

The second millennium of medicine is important because it represents another paradigm shift that was stimulated through epidemic disease. This paradigm shift was comparable to the change from Homeric to Hippocratic mediculture. As I have suggested in earlier chapters there are no technological advances (comparable to those of modernity) to be found in the development of these new medicultural movements, but rather the epistemology offered by them proved to be efficacious over the former system.

In the same way that I have suggested that historians have understood the development of Western biomedicine teleologically, and have taken the changes in medical beliefs for granted, Rodney Stark has noted, following Peter Brown (1964), that "scholars more often recount, rather than try to account for, the Christianization of the West, and in doing so seem to take the end of paganism for granted" (1997:93). "This enormous thing called paganism . . . did not just topple over dead" (MacMullen 1981:134). According to Stark (1997) paganism was an effective explanatory system for centuries, "but that fact remains that paganism did pass into history [as a dominant explanatory system]<sup>4</sup>. And if some truly devastating blows were required to bring down

this enormous thing, the terrifying crises produced by two disastrous epidemics may have been among the more damaging” (1997:94).

The epidemics that are relevant to Stark’s interpretation are the plagues of Galen (165-180 AD) and the plague of 251-266 AD when “Christianity burst out into the open so that neither emperors nor their subjects could ignore its challenge” (Starr 1982:138). Problematically, Stark (1997) and Starr (1982) fail to consider that “in 312 AD there was another severe epidemic of smallpox” (Rosen 1993:20), and this is also the year when Constantine’s opinion regarding Christianity changed (Fox 1986:612).

In the *Rise of Christianity* (1997), Stark argues that in the early centuries of the common era, Christianity was an obscure movement that can be compared to the new religious movements of our century. This thesis allows Stark (1997) to draw upon Wallace’s (1956) revitalisation theory in an effort to understand the rise of Christianity in terms of what it offered as a cultural system. He suggests that although Wallace’s (1956) claim that all religions develop in response to crisis is a “needlessly extreme view . . . there is abundant evidence that faith seldom is blind, in the sense that religions frequently *are discarded* and new ones accepted in troubled times, and surely periods of raging epidemics meet the requirements outline by Wallace” (1997:78, original emphasis). In the fourth chapter of *The Rise of Christianity* (1997), Stark develops three theses based on the idea of the functional capabilities of the explanatory systems in question, the contribution of Christian values, and the application of control theories of conformity.

Following Wallace (1956), Stark (1997) argues that natural and social disasters

are often translated into crises of faith, and that this is often the impetus to the development or adoption of new faiths. More specifically, Stark suggests that the adoption or development of a new faith can occur because religion has proved to be ineffectual against the disaster (Stark 1997:77-78). If religion cannot provide an explanation for the disaster - or fails to deal with it physically - a crisis of faith invariably ensues. Once the society is experiencing a crisis of faith there is an opportunity for new ideas and beliefs to gain acceptance and perhaps eventually become tradition. In effect, Stark has provided a condensed version of Wallace's revitalisation theory.

In contrast to other theories regarding the rise of Christianity, Stark's (1997) explanation is considerably more appealing. For example, Hugh Thomas in *An Unfinished History of the World* suggests that "[a]fter centuries of toleration, cynicism, agnosticism, mild polytheism, pessimism . . . the Roman Empire in the third century A.D. constituted an easy conquest for Christianity" (Thomas 1995:163). E. Glenn Hinson claims that with Constantine's conversion "Christianity now became the fad" (1995:167). Similarly, according to E. R. Dodds (1970), paganism "began to collapse the moment the supporting hand of the state was withdrawn from it" (in Hinson 1995:167), and finally, Henry Chadwick argues that "Paganism was far from being moribund when Constantine was converted to Christianity" (1967:152). In critique, Stark argues that "the idea that paganism's weakness was caused by Christian political power fails to explain how Christianity managed to be so successful that it could become the state church" (1997:197, also see p.208).

## A Positive Christian Epistemology

The first thesis that Stark develops is the idea that “Christianity offered a much more satisfactory account of why these terrible times had fallen upon humanity, and it projected a hopeful, even enthusiastic, portrait of the future” (1997:74). For example, Stark refers to the writings of Cyprian in 251 of the common era to demonstrate this positive epistemology in Christianity. He quotes from *Mortality* 15-20:

the just are dying with the unjust, it is not for you to think that the destruction is a common one for both the evil and the good. The just are called to refreshment, the unjust are carried off to torture; protection is more quickly given to the faithful; punishment to the faithless. . . . How suitable, how necessary it is that this plague and pestilence, which seems horrible and deadly, searches out the justices of each and everyone and examines the minds of the human race; whether the well care for the sick, whether relatives dutifully love their kinsmen as they should, whether masters show compassion for their ailing slaves, whether physicians do not desert the afflicted. . . . Although this mortality has contributed to nothing else, it has especially accomplished this for Christians and servants of God, that we have begun gladly to seek martyrdom while we are learning not to fear death. These are trying exercises for us, not deaths; they give to the mind the glory of fortitude; by contempt of death they prepare for the crown. . . . [O]ur brethren who have been freed from the world by the summons of the Lord should not be mourned, since we know that they are not lost but sent before; that in departing they lead the way; that as travellers, as voyagers are wont to be, they should be longed for, not lamented . . . and that no occasion should be given to the pagans to censure us deservedly and justly, on the ground that we grieve for those who we say are living. [Cyprian in Stark 1997:81]

In comparison to Thucydides’ account of the plague of Athens, if one did not know any better it could be argued that Cyprian was responding directly to the crisis as presented in the *History of the Peloponnesian War*. Cyprian begins here by addressing the incongruity between belief and phenomena, that is, between the good and the bad dying indiscriminately. According to Cyprian, there is a difference between Christian and pagan morality whereas in Thucydides there was no plausible explanation to be found for

the common mortality. For Cyprian, the bad are dying because they need to be punished, however, the plague is understood as a test for the good. The pestilence is defined as an effort by God to differentiate between Christian and pagan values (cf. Sontag [1978, 1989] 1990:43).

To be sure of the differences between pagan and Christian responses to disease, we only need to remember that Galen fled Rome when an epidemic struck (Stark 1997:85). This was a logical response. Roman mediculture was influenced by the naturalised medical beliefs of Greece. As a result of the recognition of the “contagious” nature of the disease, many individuals neglected their friends and family (Stark 1997:85). In addition, the Pagan belief in an afterlife was poorly defined. According to Fox, “on the topic of an afterlife, the sentiments of the ancients admitted of infinite variation. . . . many of those who have left any word on the topic denied it altogether, in their epitaphs, their poems, their books. . . .” (1986:95). The idea of an afterlife was not absent from Roman paganism, however, in contrast to Christianity, the range of opinion on the matter lacked coherence and orthodoxy (Fox 1986:97). According to Lerney, Meacham, and Burns “the Roman religion . . . had no dogma or sacraments or belief in rewards and punishments in an afterlife” ([1941] 1988:178). Christians, on the other hand, had a well formulated belief system. They believed that life lived in accordance with Christian doctrine was rewarded with eternal happiness in Heaven.

### **The Problem with the First and Second Epidemic: Revising Stark’s Analysis**

As I have noted above, Stark bases his argument for revitalisation upon the first

two epidemics of the common era. If we are to gain a deeper understanding of the rise of Christianity as a revitalisation movement, I must point out that Stark (1997) has failed to ask *why* it took three centuries for this process of revitalisation to occur. As I have suggested earlier, we cannot assume that for every epidemic there will be cultural change. Stark (1997), however, has argued that the first two epidemics of the common era can account for the development of Christianity. Without criticizing Stark's interpretation of epidemics and the rise of Christianity we would be left with an incomplete account of this process of change. Why, then, did Christianity fail to revitalise the Greco-Roman world after the first or second epidemic?

To begin, contrary to what McNeill ([1976] 1998:131) has suggested, the epidemics of the first two centuries were not that serious. A mortality rate of one quarter (McNeill [1976] 1998:131) hardly signifies the existence of a virgin-soil epidemic. Consequently, we must be sceptical about the impact the epidemic had upon society. In short, although the epidemic killed off one quarter of the population, we must consider that paganism may have maintained a steady state by remaining within the tolerable limits of stress. After all, it was an effective explanatory system for centuries prior to its fall as the dominant system of belief.

The most decisive argument for the slow rise of Christianity is derived from an aspect of religion that Stark has overlooked, namely aretalogy (the advertisement of miraculous healing, or miracles). In "Early Christianity as a Religion of Healing" (1992), Gary B. Ferngren argues that

there were hundreds of pagan healing shrines in the second century . . . .



Testimonies to miraculous cures effected by the gods were advertised to attract those seeking health. Given the spirit of the age, it seems surprising that Christianity did not more forcefully exploit its healing potential. While pagans advertised their healing miracles (aretalogies), Christians mentioned healing in a general way, largely for the purpose of apologetics. [1992:7]

In the third century the role of demons and demonic explanations for disease became a popular concern. At the same time there was also an increase in the “frequency of allusion to supernatural healing among Christians . . . [and] *by the fourth century there are more instances of miraculous healing reported [by Christians] . . . than from all three preceding centuries combined*” (Ferngren 1992:10-11, emphasis added).

The reason for the lack of revitalisation during the first three centuries becomes apparent. According to revitalisation theory we are forced to consider that Christianity was not performing the tasks necessary for revitalisation. Specifically, Christianity was not communicating their code and without an effort to make converts through an evangelistic spirit, how can cultural transformation occur (see chapter three Pp.59-60)? “The evidence of the first three centuries suggests that mainstream Christianity did not promise physical healing” (Ferngren 1992:14). If Christianity did not promise physical healing in a time when people we faced with the threat of death, it is no wonder Christianity was not seen a an alternative to paganism.

With a revised understanding of Christianity, it can be asserted that it was not until Christians started to “advertise” their beliefs and address health publically that they can be understood as a revitalisation movement and a religion of healing (see Ferngren 1992:12). As suggested by Ferngren (1992), it was the ideology of demonology that caused Christianity to become vocal.

The new outlook reflected the credulity of the age, found in pagan and Christian alike, which lessened the appeal of rational medicine and encouraged frequent resort to exorcism or other forms of supernatural healing . . . [and] it is this credulity that underlies the dramatic increase in exorcism, magic, and supernatural forms of healing among Christians in the fourth century. [Ferngren 1992:10-11]

### **The Contribution of Christian Values to Cultural Revitalisation**

An important point to consider when examining epidemics is that quite often people die from the inability to recover because they cannot meet the basic requirements for subsistence. "When all normal services break down, quite simply elementary nursing will greatly reduce mortality. Simple provision of food and water, for instance, will allow persons who are temporarily too weak to cope for themselves to recover instead of perishing miserably" (McNeill [1976]1998:108). In addition, the idea of contagion disappears from the religious doctrine of Christianity, or at least it is superceded by a greater compulsion, namely to serve God. Stark suggests that not only did the Christians explain the epidemic in positive terms, but the caring attitude that was present within the Christian doctrine gave them an epidemiological advantage over the pagans (1997 pp.79 and 86ff).

Greco-Roman paganism lacked any religious or philosophical basis for charity which encouraged a personal concern for those in physical need. Christianity on the other hand, rooted philanthropy in theology: the impulse behind philanthropy was to be a self-giving love of one's fellow beings which reflected the love of God. [Ferngren 1992:14]

Now, this is not to suggest that the Christians *cured* the sick through an efficacious medicine per se, but rather, they provided *primary healthcare* to the sick, and those who were cared for had a better chance of recovery (McNeill [1976]1998; Stark 1997).

In contrast to the pagans, Christians were distinguished by their “self-confidence, self-sacrifice, hard work, austerity, determination and selfless care for the sick at a time of increased numbers of plague” (Thomas 1995:165). Further, they were not hindered by threats of contagion. Religious doctrine also contributed substantially to the development of this role through its insistence upon the Christian obligation to God. Given that God loves humanity, “Christians cannot please God unless they love one another. Indeed, as God demonstrates his love through sacrifice, humans must demonstrate their love through sacrifice on behalf of one another” (Stark 1997:86).

As a result of the primary healthcare that was given, according to Stark the total rate of mortality for the Christians was less than the pagan mortality rate (1997:88ff). For example, Stark suggests that there was a ratio of 1 Christian to 249 pagans prior to the epidemic (1997:89ff). Arguing from modern medical expertise regarding “nursing” (see Stark 1997:89), a mortality rate of 30 percent is ascribed to this epidemic with a two third survival rate given to those who had access to primary healthcare; consequently, Stark argues that a shift in the ratio occurred: there was 1 Christian for every 197 pagans.

There are a few details that can be inferred from the above. First, the higher survival rate (among Christians) was most likely noticed by non-Christians and this became a factor that needed to be explained. For example, the pagans may have asked: “Why are we dying and they are not?” As noted by Stark, when physical measures fail, then quite often there is a return to explanations that evoke “supernaturalism” (1997:77-78). With this in mind, it is likely that the differential mortality rates would have been explained by referring to the gods, their absence, or the power of the Christian God. “A

much superior Christian survival rate hardly could seem other than miraculous.

Moreover, superior survival rates would have produced a much larger proportion of Christians who were *immune*, and who could, therefore, pass among the afflicted with seeming invulnerability” (Stark 1997:90, original emphasis).

The primary healthcare that was provided by Christians greatly reduced the mortality among them. The decreased mortality rates among Christians thus raised epistemological questions among the pagans, and in the end this contributed to pagan conversions to Christianity. In this sense Christianity was not only able to explain the epidemic in positive terms - thus circumventing anomie and maintaining a steady state in Christian communities - but it also revitalised the lives of pagans by offering them a new explanatory system. This satisfies the epistemological and efficacious criteria for revitalisation theory.

Christians did not discriminate between pagans and Christians. For example, consider the following passage from Matthew in juxtaposition to an epidemic:

For I was hungry and you gave me food, I was thirsty and you gave me drink, I was a stranger and you welcomed me, I was naked and you clothed me, I was sick and you visited me, I was in prison and you came to me. . . . Truly, I say to you, as you did it to one of the least of these my brethren, you did it to me. [Matthew 25:35-40]

Aside from the significance this passage holds for the role of a primary healthcare provider, it also directs the Christian to the needs of all humans that are suffering. In effect, because the Christians did not flee from the epidemics, but rather stayed to care for pagans and Christians alike, strong social networks were created through healthcare. Stark has calculated that because pagans did not provide healthcare the survival rate for

pagan-pagan bonds is 49 percent whereas Christian-pagan bonds are 63 percent and Christian-Christian bonds, 83 percent (1997:91). "Thus not only are attachments among pagans almost twice as likely to perish as attachments among Christians, pagan bonds to Christians are also much more likely to survive than those uniting pagans to one another" (Stark 1997:91). Stark further argues that these survival rates must take into account the fact that pagans fled and Christians did not, consequently the new survival rates for Christian-Christian, Christian-pagan, and pagan-pagan bonds are: 81, 45, and 25 percent respectively (1997:91). In the end, Stark hypothesises that if a pagan had five very close attachments prior to the epidemic, four with pagans and one with a Christian, shortly thereafter that same pagan (if s/he survived) would have only two friends left, one pagan and one Christian (1997:91)! Pagan social relations became chaotic during the epidemic and left many pagans without social attachments and this profoundly altered the community membership, which contributed to the rise of Christianity (Stark 1997:91).

It is thus hypothesized, by Stark (1997), that through primary care, increased mortality, perception of differential mortality rates, and the creation of new social networks, Christianity revitalized the culture during the epidemics. Further, Christianity asserted a well formulated doctrine of the life-after-death and this may have been an attractive feature of the Christian paradigm when death was evidenced everywhere. It is no coincidence that the rise of Christianity coincided with the epidemics of the first centuries of the common era. As suggested by Stark (1997), by understanding the rise of Christianity in terms of revitalization in response to social disruption (caused by epidemics), we can better explain the collapse of paganism and subsequent religious

developments. In other words, “paganism . . . was an active, vital part of the rise of Hellenic and Roman empires and therefore must have had the capacity to fulfil basic religious impulses” (Stark 1997:94). As such, we cannot assume that paganism came to an end because “its time was up.” By understanding Christianity in terms of revitalization and epidemics, paganism can be understood as a paradigm that came to an end because it failed to address basic human needs in times of crisis.

### **Discussion: Christianity as Mediculture**

“By 313 AD, when Constantine established Christianity as one of the official imperial faiths. . . . healing became more spiced with religion” (Porter 1997:83-84; also see Ferngren 1992). While it is true that pagan mediculture appealed to the gods, and used both physical and metaphysical attempts to cure, the same cannot be said for Christianity. According to Porter (1997), the Christian healing doctrine grew out of older traditions, one of which was eastern asceticism (1997:84). Following eastern asceticism, then, Christianity also prized spirituality over the flesh, and the need for a naturalised medicine diminished. In addition, Christianity also drew upon the disease etiology presented in early Judea and the Old Testament, consequently disease often signified the wrath of God (Porter 1997:84).

*Christus Medicus* (Jesus the Great Physician) referred to afflictions of the soul and only rarely to those of disease (Ferngren 1992:14). Disease, however, was curable by the Lord alone, and consequently, there was no place for the professional physician in Judaism<sup>5</sup>; “Jahew alone is the Healer” (Porter 1997:85; also see Ferngren 1992:10).

According to Porter the Christian position on this matter was also clear:

the divine was above the temporal. Sometimes the Lord's will was to punish sinners with plague; sometimes it was man's duty to preserve life and health, for the glory of God and the salvation of souls. But the body was to be subordinated to the soul, and healing, like every other temporal activity, had to be under ecclesiastical regulation. [1997:110]

The Christian martyrs, Damian and Cosmas, replaced Asclepius as the patron saints of medicine. Interestingly, in the same way that the early Greek and Roman pagans blamed and appealed to different gods in matters of health and sickness, Christianity also had a standing reserve of saints to draw upon. St Luke and St Michael could be called upon for any matter of illness there were also specialists in the field of sickness, for example:

St Anthony was invoked for erysipelas (St Anthony's fire); St Artemis for genital affliction, St Sebastian for pestilence. St Christopher dealt with epilepsy, St Roch protected against plague buboes; St Blaise was good for goitre and other throat complaints, St Lawrence for backache, St Berardine for the lungs, St Vitus for chorea (St Vitus's dance) and St Fiacre for sore arses. St Apollonia became the patron saint of toothache . . . while St Margaret of Antioch was the patron of women in labour. . . . The blood of St Thomas a Becket cured blindness, insanity, leprosy and deafness. . . . [Porter 1997:111-112]

With the rise of Christianity health and sickness returned to the hand of God and the alleged age of darkness descended upon the West. "Disease was a punishment for sin . . . . Consequently, prayer, penitence and invocation of saints were the means employed to deal with health problems" (Rosen [1958] 1993:29)

With the above said, although Stark has utilised Wallace's revitalisation theory, he has not used it in a way that exceeds its original purpose. More seriously, Stark has avoided asking why it took Christianity three centuries to successfully revitalise the Greco-Roman world. After all if he wanted to remain within the parameters of

revitalisation theory as a model for *rapid* cultural change, this poses a serious question.

In short, revitalisation did not occur until the fourth century because Christians were not fulfilling the tasks necessary for a revitalisation movement. If people were not aware of the potential of Christian mediculture, how could they adopt it. Towards the end of the fourth century Christianity began to advertise its miraculous healing. This effort to communicate, combined with a philanthropy rooted in theology (and the associated mortality differential and social bond hypothesis: see Stark 1997) explains the slow rise of Christianity the subsequent revitalisation of the Greco-Roman world in the fourth century.



## CHAPTER SIX

### A COMPARATIVE EXAMINATION OF THE BLACK DEATH: ITS CONTRIBUTION TO CULTURAL DISSOLUTION, CONTINUITY, AND CULTUROGENIC STRESS

The anthropological concern in the fourth and fifth chapters was to explain how new belief systems have developed in response to a crisis that has been produced by epidemic disease. The fourth chapter questioned the explanatory ability of positivism in medical history. It examined the change in Greece's beliefs from a system that was predominantly metaphysical to a system of belief that appealed to natural causes for disease rather than supernatural ones. Similarly, chapter five traced the diffusion of Greek culture to a pagan Rome which incorporated a multiplicity of beliefs into its culture. The decline of Rome's mediculture and the subsequent rise of Christianity was also understood as a process of cultural revitalisation in response to epidemic disease.

Following the criticism of cultural ecology, it is reasonable to assume that not all cultures will respond to epidemic disease in the same way. The subject matter of this chapter, then, shifts from the development of a new mediculture in response to epidemic disease and turns our attention to the question of what happens when a crisis is explained by a *negative* epistemology, or conversely, a *positive* epistemology.

The pandemic of the fourteenth century, touted as the 'Great Dying', had its origins in central Asia and swept through the Mediterranean world (Dols 1974:269). The pandemic consisted of three major forms of plague: bubonic, pneumonic, and septicaemic; and it is assumed that the severity of the disease was devastating throughout

all the regions afflicted by it (Dols 1974:271). The fourteenth century author, Giovanni Boccaccio, wrote the following regarding the plague in Europe:

The Era of the fruitful Incarnation of the Son of God had arrived in the year 1348 when the deadly plague reached the noble city of Florence. . . . [the plague] had started some years earlier in the Orient, where it had robbed countless people of their lives, moved without pause from one region to the next until it spread tragically into the West. . . . the atmosphere was charged with the stench of corpses. . . . not a soul was destined to remain alive in the city. [*The Decameron* [1351]1982:7-11]

Similarly, the fourteenth century Muslim historian, Ibn Khaldun, wrote the following on the plague in Islam:

In the middle of the eighth [*ca.* fourteenth] century, civilization in the East and West was visited by a destructive plague which devastated nations and caused populations to vanish. . . . Civilization decreased with the decrease of mankind. Cities and buildings were laid waste, roads and signs were obliterated, settlements and mansions became empty, dynasties and tribes grew weak. The entire inhabited world changed. [Khaldun in Dols 1974:270]

Based upon these two accounts of the plague, it can be asserted that the Black Death devastated the areas it affected. According to the hypothesis set forth in this thesis, each civilization was faced with the same paradigmatic threat posed by the pandemic. We expect, then, that the communities in question responded to the phenomena through their culture and attempted to address the epidemic, physically and/or epistemologically. According to revitalisation theory, if these imperatives were not met there would be an attempt to revitalise the society's culture.

In the *History and Geography of the Most Important Diseases* (1965), Ackerknecht notes that the "Black Death was not without effect on the religious and economic development of Europe" (1965:15). Ackerknecht (1965:15), however, is

sceptical of the extent to which the plague affected religious and economic development in Europe. For example, Ackerknecht argues that although the plague may have had an effect upon religion and economics, historians have largely exaggerated the effects of the plague (1965:15). Speaking to this point, Ackerknecht asks “why the plague should have had an effect on *Europe alone*, considering the fact that it had been *raging all over the globe*” (1965:15, emphasis added).

In response to Ackerknecht’s (1965:15ff) argument, I suggest that his scepticism towards the impact of the plague in Europe is a result of the failure to understand epidemic disease anthropologically. It has been suggested thus far that a community may develop a new paradigm to explain new phenomena; however, there is another situation that needs to be appreciated. We must consider the resistance a paradigm might have towards a stressor, or the ability to *reinforce and accelerate traditional beliefs* through culture. In other words, we cannot assume that culture will always fail in times of crisis as it has for many of the societies described in this thesis. According to the model of revitalisation, if a society can meet the criteria for a steady state it can circumvent cultural dissolution.

### **Positive and Negative Explanations, and the Profit of Dying**

In “Comparative Communal Responses to the Black Death in Muslim and Christian Societies” (1974), Michael W. Dols suggests that the reaction to the plague was quite dissimilar in the societies in question because of each culture’s respective identity (1974:272). The response to the Black Death differed in Christian and Muslim societies

because of the explanation that their paradigm offered. For example, albeit a simplistic explanation, let us tentatively follow Dols (1974:275) who suggests that the Christians responded to Black Death in a way that was consistent with biblical beliefs - namely visions of the Apocalypse as described in the *Revelation* of the Holy Bible.

In Christian societies the most commonly held belief about the plague was religious: "the European Christian viewed the Black Death as an overwhelming punishment from God for his sins and those of his fellow Christians" (Dols 1974:272; also see Park 1992:64; and Porter 1997:124ff). The Christian response to the Black Death "took the forms of the flagellant movement, the persecution of alien groups (particularly the Jews), and a pessimistic preoccupation with imminent death" (Dols 1974:275).

Among the Christian responses to Black Death, it is interesting to look at the beliefs from which they developed. By doing so we can gain an understanding of how beliefs are enacted as a response to stressors in an attempt to order and deal with the phenomena that is present. As suggested by Dols (1974), one of the responses of the Christian community to the Black Death was the persecution of alien peoples - namely the Jews. In the *Pursuit of the Millennium* Norman Cohn provides us with an example of how a social myth is created out of existing beliefs in response to, and in an attempt to deal with the plague. In the *Pursuit of the Millennium* (1961), Cohn states:

opposite the armies of the Saints, and scarcely less powerful than they, there appears a host of demonic fathers and sons. The two opposing hosts, each the negative of each other, are held together in a strange symmetrical pattern. . . . Like the messianic leader, Antichrist is filled with supernatural power which enables him to work miracles; but this power comes from Satan and is exhibited

in the black arts which he exploits for the ruin of the Saints. . . . [L]ike Satan [the antichrist] is a creature of darkness, he is the beast who ascends out of the bottomless pit, he is an earthbound monster out of whose mouth come unclean frogs, scorpions and other familiar symbols of earth and dirt. . . . Everything which was projected on to the imaginary figure of Antichrist was also projected on to those 'outgroups' which were regarded as serving him. . . . To these demons in human form, the Jew and the false cleric was attributed every quality which belonged to the Beast from the Abyss - not only his cruelty but also his grossness, his animality, his blackness and uncleanness. . . . [T]he Saints knew that it was their task to wipe that foul black host of the face of the earth, for only an earth which had been so purified would be fit to carry the New Jerusalem, the shining Kingdom of the Saints. [1961:71-3]

In this quotation it is evident that the cultural beliefs of Christianity provided a way that Christians could respond to the Black Death. It allowed them to explain Black Death according to biblical text. It told them that the Black Death was a result of the soldiers of Satan and the Antichrist who were believed to have been embodied in the Jews.

As suggested earlier, Stark (1997) has argued that a society must respond to a epidemic by either epistemological or physical means. Christians responded to Black Death in both of these areas. The Bible allowed an epistemological interpretation of the plague and Jews (among others) became the scapegoat. For example, Cohn suggests that in the Middle Ages theological convictions contributed to the construction of a demonology that was accepted by all alike, including the clergy.

But at times of general disorientation these phantasies became more obsessive and compelling than usual. Hardship and distress did not in themselves produce this result. Poverty, wars and local famines were so much a part of normal life that they were taken for granted and could therefore be faced in a sober and realistic manner. But when a situation arose which was not only menacing but went altogether outside the normal run of experience, when people were confronted with hazards which more all the more frightening because they were unfamiliar - at such times a collective flight into the world of phantasies could occur very easily. [Cohn 1961:73]

The Black Death was such an event. It called forth cultural beliefs in attempt to explain and address the plague physically.

The Muslim response to the Black Death was similar to the Christian response because it developed out of culture and was consistent with religious doctrine. In contrast, however, the beliefs of the Muslims differed largely from Christians and it allowed them to explain the epidemic in different terms. For example, "the dominant Muslim view of plague was set forth in the formulation of three religio-legal principles, which directly affected communal behaviour" (Dols 1974:275). It was thus believed by the Muslims that (1) the plague was a mercy from God and a martyrdom for the faithful; (2) the Muslim should not enter nor flee from a plague stricken land; and (3) the plague was not contagious since it was sent from God (Dols 1974:275).

According to Muslim religious belief, the plague was understood in the same way as a *jihād* or holy war (Dols 1974:276). The doctrine of the *jihād*, then, served as a useful *analogy* (cf. the Qur'ān 2:190, 216, 244, 193; 3:142, 169, 170; 9:20 for appropriate responses) for the Muslims when they were confronted by the problems of plague (Dols 1974:276). In the Christian communities we see millenarian movements develop (see Cohn 1961), but in the Muslim communities we also see the intensification of religious beliefs. If each of these religions were explaining the same phenomena, why, then, was the situation in Christian communities much more problematic than in the Muslim communities?

Although the beliefs in Christian communities stimulated a response to the Black Death according to biblical and philosophical beliefs, it stimulated chaos, frenzy, fleeing

and millenarian movements because it explained the epidemic *negatively*. Muslim communities defined the plague differently. Rather than producing chaos and turmoil, the plague intensified the religious beliefs of the Muslims whereas it eventually stimulated the development of new religious and social movements in Christian Europe (Cohn 1961). I suggest, then, that the economic benefits of the plague contributed to the intensification of religious beliefs for the Muslim: the profit of dying. For example, “many men left their normal occupations to profit from the funerals, as by chanting the funeral prayers at the head of processions. . . . [the funeral processions] were so numerous that they could not pass in the roadways without disturbing one another” (Dols 1974:279). Boccaccio describes the situation in Christian communities as such: “One citizen avoided the next, there was scarcely a man who would take care of his neighbour” ([1351] 1982:11). Boccaccio further illustrates that traditional funeral rites and the like were abandoned during the plague. When a funeral should have taken place “they would drop the corpse into the nearest available tomb that had space, without too much effort being wasted on a lengthy solemn or requiem” (Boccaccio [1351]1982:12).

Given the above, the following can be suggested: the Muslim response to the Black Death was born out of biblical ideology (the *hadith*) and it was understood to be analogous to jihād. Muslim theological doctrines were employed in an attempt to explain and order the presence of the Black Death. As a result of the Muslim’s theological doctrines, the plague was not feared and individuals did not flee the plague stricken areas. More specifically, it would not be honourable, or culturally logical, to flee a plague and in doing so forego one’s expected entrance into the seventh heaven.

Further, since death from the plague was seen as analogous to death from a jihād, the individuals who died from the plague deserved proper burial and associated rites. As a result of the high mortality and the need to bury these individuals in accordance with religious beliefs, it was economically lucrative to enter this area of self-employment. What we see, then, in Muslim societies is an intensification of two logical correlates: economics and religion. In other words, as a result of the plague and cultural beliefs, a feedback cycle developed between economics and religiosity. As more people died, more people were needed to perform religious functions. As people filled these vacancies they too became infected and more people were needed to perform their duties. People continued to enter plague infected areas because it was not only economically profitable, but because they were fulfilling religious obligations to Allah.

As suggested by Dols (1974) the Qur'ān and the Hadith supplied the Muslims with guidance whereas the Bible provided themes of the apocalypse for Europeans:

The operative European Christian concepts were lacking in Muslim society as were their unattractive consequences of religious fanaticism, persecution, and desperation. The predominant theological views of the two societies set the framework for normative attitudes and the prescriptions for communal behaviour . . . . [1974:287]

The responses to Black Death were determined by each society's cultural paradigm. In response to Ackerknecht's assumption (1965), the reason why the European response differed from other responses is because they viewed the plague differently. And, even though one might envision disaster and chaos, this may be an image that has developed out of our contemporary thinking and a stereotype of how people ought to respond to plague.



## **A Re-Examination of Christianity during the Black Death**

Dols suggests that “the most commonly held opinion about the ultimate cause of the plague pandemic was religious: the European Christian viewed the Black Death as an overwhelming punishment from God for his sins and those of his fellow man” (1974:272). He goes on to suggest that “the pandemic was considered . . . by *most European* observers to result directly from the pestilential miasma, and it was believed that the disease was contagious, which accounts for . . . the widespread advocacy of flight” (1974:272, emphasis added). If it was believed that the disease was a punishment from God, why then did they take flight from the cities?

In an attempt to reconcile the above, it might be suggested that the first quotation above refers to commoners while the second refers to learned individuals. If this was true, however, we would expect to see the learned observers fleeing and not those who believed that the plague was an act of God. Surely the commoners did not believe that they could escape the wrath of an omniscient, omnipotent, omnipresent God. To be sure, “the natural inclination of survivors to escape the contagion by fleeing from a plague-stricken region was encouraged by European *physicians* and *clerics*” (Dols 1974:275, emphasis added). We cannot assume, consequently, that there were two classes of individuals responding to the plague based on different understandings within Christian communities.

### ***De jure* and *de facto* Explanatory Models**

As most fourteenth century people believed, the Black Death was sent by God as

a punishment for the sins that humanity had committed (Duffin 1999; Ziegler 1969). In a further attempt to explain the plague, scholars pointed out that there was a rare conjunction of the planets in the constellation of Aquarius. The formal presentation of this explanation in the 'Plague Tractate' was met with a sense of inevitable doom (Duffin 1999; Ziegler 1969). For example, "if the plague was decreed by God and the inexorable movements of the planets, then how could frail man seek to oppose it?" (Ziegler 1969:39).

Fallacious reasoning will lead us to the conclusion that there was a period in human history when magico-religious healing existed without physical methods, or visa versa. Even today people in the biomedical-West pray to God to cure their diseases. In Ackerknecht's essay, "Primitive Surgery" (1978) he argues that in non-literate societies, physical therapeutics are always accompanied by magical incantations and the like. Although Ackerknecht has demonstrated that the ethnomedicine of the so-called primitives is by and large a magico-religious system, he has nevertheless shown that these peoples have a extensive surgical bricolage.

As I have argued in chapter four, during the reign of Hippocratic medicine, Greek society was not without medicine that appealed to metaphysics. Similarly, although during the medieval period it was postulated that "disease sprang from the will of God and only one with access to divine power could cure it" (Park 1992:64), there were, nevertheless, other approaches to healing. For example, Park goes on to argue that

[i]n practice. . . the consumers of health care, laity and cleric, rich and poor, saw the saint or holy man as one healer among many. . . Like their pagan predecessors, they appealed to many different kinds of healers - herbalists and

midwives, exorcists and wise women, saints and doctors, lay specialists and monastic amateur. These groups were not clearly differentiated; classically trained physicians might prescribe charms and incantations, while saints and charismatic would recommend medication or perform surgery. Rather they coexisted and overlapped, as colleagues and as rivals, often sharing the same clientele and the same therapeutic techniques. [1992:64-65]

It is apparent, then, that there were *de jure* and *de facto* explanatory models employed by the Christians during the medieval period. On one hand there was the Christian belief that God caused sickness and healing, therefore, must be of the religious nature, however in practice that was not the case.

In *Did the Greeks Believe in Their Myths?* Veyne provides an interesting cultural-paradox from the work of Dan Sperber that provides a similar contradiction between theory and practice. For example, the Ethiopian-Dorze believe that

the leopard is a Christian animal who respects the fasts of the Coptic church, the observance of which, in Ethiopia, is the principal test of religion. Nonetheless, a Dorze is no less careful to protect his livestock on Wednesdays and Fridays, the fast days, than on other days of the week. He holds it true that leopards fast and that they eat every day. [Veyne 1988:xi]

Anthropology, then, offers us a glimpse into the beliefs of other people and teaches us that we must be careful not to impose our own logic when examining the beliefs of other people. It is true on a theoretical level for the Dorze that leopards do not eat meat on Wednesdays and Fridays, yet on an applied level leopards do eat meat on Wednesdays and Fridays. Similarly, it is also possible to believe in the idea of divine punishment and attempt to treat disease through non-divine therapeutics.

## **Christianity and Culturogenic Stress**

The Black Death was understood by some to be the result of a rare conjunction of the planets in the constellation of Aquarius (Duffin 1999; Ziegler 1969). Others believed that foreigners or the poor were responsible. Still more saw it as divine punishment for the corruption of the priests, or simply as a punishment for the actions of humans in general as stated in the 'Heavenly Letter' (Ziegler 1969:89). "For their inability to cope with plague, clerics and medics alike lost credibility" (Duffin 1999:141), and in the end anomie and disillusionment descended upon Europe. To be sure,

it is above all in the works of the artist that the mood of the age finds its most vivid expression. . . . in the thirteenth-century all the inspiring aspects of Christianity are reflected in art - kindness, humanity, love. . . . In the fifteenth-century, this light from heaven has long ceased to shine. Most of the works from this period . . . are sombre and tragic. Art only offers a representation of grief and death. [Ziegler 1969:285]

### **The Development of Culturogenic Stress: An Example from the Flagellants**

Duffin has attempted to save herself a great deal of labour by stating that "social practices [during the Black Death] were overturned in the manner described by Thucydides" (1999:141). This is only partially true, however. In other words, in chapter four I argued that the Greeks were not able to meet the criteria necessary to maintain a steady state and not exceed the tolerable limits of stress. It was because of the *inability* to explain the plague that the Greeks plummeted into a state of anomie and disillusionment. In contrast, there was no shortage of explanations for the pandemic of the Black Death. The reason for the development of anomie and disillusionment during

the Black Death is fundamentally different from the plague of Thucydides. Anomie and disillusionment were the product of a negative epistemology, which created culturogenic stress.

As suggested by Philip Ziegler “the Flagellants, with their visions and their superstitions, their debauches and their discipline, their idealism and their brutality, provide a uniquely revealing insight into the minds of medieval man when confronted with overwhelming and inexplicable catastrophe” (1969:88). As noted above, there was no shortage of explanations for the plague; however, in its castigating wisdom, Christianity provided an explanation for the plague that created culturogenic stress and the turmoil that is associated with the Black Death. For example, the Flagellants believed - following Christian doctrine - that the plague was the direct punishment of God (Zielger 1969:39,114). The aim of these self-flogging itinerants was to induce God to relent through their suffering and pain (Ziegler 1969:89). A great part of their beliefs was based upon the image of Jesus Christ’s suffering and purpose on earth. The Flagellants, then, believed that through their suffering they could appease God and circumvent the apocalypse.

What makes this different from a revitalisation movement is that: (1) it is not offering a new explanation for the phenomena, (2) it is working within Christian culture, although it rejects the Church’s authority, and (3) it is not performing the functions required for a revitalisation movement as detailed in chapter three of this thesis. The Flagellant’s were a product of a negative epistemology. As a result of the epidemic being explained in negative terms, we can argue that not only has culture offered an effective

explanation, albeit negative, but culture has also produced stress through that explanation. The Flagellants are merely enacting, or performing what they believe will save humanity from the wrath of God.

Although the Flagellants have provided an excellent example of effects of a negative epistemology, cutlurogenic stress goes beyond the Flagellants. "The Black Death descended on a people who were drilled by their theological and their scientific training into a reaction of apathy and fatalistic resignation" (Ziegler 1969:39). Anomie and disillusionment were not the result of a crises that went unexplained. Culture did not fail the Christians in that sense, but rather it affirmed that the end was near and encouraged apocalyptic millenarianism.

### **Secular and Religious Strategies at Odds in Christendom**

Dols (1974) has provided a useful comparison to help us understand the differences between Christian and Muslim responses to the Black Death. As I have noted above, though, Dols' comparison is notably incomplete. In *Epidemics and History* Sheldon Watts argues that during the medieval period an ideology of order developed and the poor came to be seen as "sordid people [who] . . . had to be kept in place by the gibbet, the whip, the galleys and other condign punishment. . . . it required only a short imaginative leap to conclude that the collect poor were carriers of disease, and that plague itself was contagious, spread from person to person" (1997:16).

In an attempt to control the plague the Italian government developed an effective quarantine regulation that consisted of five elements (Watts 1997:16-17). For example,

during times of plague there was rigorous policing of human movement between plagued and plague-free zones. Governmental regulations regarding burial existed and the isolation of infected individuals in pest-houses became compulsory. Free medical service and food provisions were given to those who had been quarantined, but this system of quarantine deeply affected the Italian-Christian culture. Funeral processions and funerals were banned. In place of a proper Christian burial, mass graves were dug where the victims of the plague were salted down with lime. According to Watts this burial treatment was only suitable for the "burial of animals, social pariahs - suicides and apostates who had renounced God" (1997:18).

Not only did the governmental regulations regarding quarantine prevent people from giving the deceased a proper Christian burial, but the regulations regarding the containment of the deceased's personal items placed the inheritance patterns of the common person into peril; the clothes, bedding and possessions of people who had died from the plague were burned rather than distributed to family, relatives, friend, and others who provided service for the deceased (Watts 1997:19). In addition to the decay of social norms we begin to see a breakdown in medieval economy with the imposition of a quarantine regulation. As suggested by Watts these regulations blocked the normal venues of sociability and deprived people of making a living (1997:20). For example, cock-fighting and bull-baiting rings, houses of prostitution, alehouses and taverns, marketplaces and street corner vendors and hawkers were shutdown along with wage labour industries (Watts 1997:20).

It is apparent that the enforced sanctions contributed to the decline of cultural and

social stability in Christian communities, especially for the common person. A final example, which contrasts the Christian practices during the first centuries of the common era can be cited. In contrast to the role of healthcare provider, which not only contributed to decreased mortality among the Christians and increased conversions to Christianity (McNeill [1976] 1998 and Stark 1997), Christians were not able to provide this service because of the quarantine.

Christian cultural norms became socially deviant when quarantine was imposed. Christian doctrine prescribed praying and fasting, but religious gatherings in Church or in the form of processions were prohibited. It was the Christian's duty to care for the sick; however, such care could not be provided while quarantine regulations were in effect. Considering the above, it is apparent that Christian culture conflicted with the public health codes that were devised to quarantine the disease and prevent further infections.

### **The Sociocultural Effects of Epidemics versus Pandemics: Re-joiner**

In chapter three I suggested that when examining the sociocultural effects of epidemics and pandemics the geography and duration of the disease in question needed to be examined. It was further suggested that fear develops because of knowledge of the geography of the disease and its implications, or because of observational knowledge in conjunction with the close proximity of the disease. Finally, I noted that the duration of the disease is another factor which needs to be considered. I will examine geography before turning to duration.



## The Geography of Disease

According to Ziegler, Europeans were aware of the geographic nature of the plague. He notes: “[b]y the end of 1346 . . . it was widely known, at least in the major European seaports, that a plague of unparalleled fury was raging in the East” (1969:15).

It must have been at some time during 1346 that word first reached Europe of strange and tragic happenings far away in the East. . . . [however] no medieval savant or merchant would have conceived that what happened so far away could have any possible relevance to his own existence. The travellers’ tales were received with awed credulity but *gave rise to no alarm*. . . . Calamities in China tend to be accepted in the Occident with the polite but detached regret reserved for something *infinitely remote*. . . . Fearful rumours were heard of the disease’s progress: India was depopulated, Tartary, Mesopotamia, Syria, Armenia were covered with dead bodies . . . . *But still it does not seem to have occurred to anyone that the plague might one day strike at Europe*. [Zielger 1969:13-15, emphasis added]

Further evidence for the lack of European concern regarding the spread of disease from the East to the West can be derived from absence of ship or traveller quarantines. To be sure, it would not be beyond the “reason” of a fourteenth century European to implement quarantine measures - we only need to consider the Europe’s familiarity with, and response to leprosy (see Park 1992:87; McNeill 1998:181; also for the lack of an official response to the outbreak of plague, see Watts 1997 pp.2,8,9).

The fact remains that in 1346, the plague reached the shores of the Black Sea. A fourteenth century chronicler of the plague, Fra Michele di Piazza, noted that twelve Genoese galleys fled the East in October of 1347 to Messina (Porter 1997:123). These ships were responsible for carrying the infected crew to Europe. In 1348 the plague reached Europe and spread across the continent in three years. Meanwhile, “elites did not respond to the plague as a *sui generis* disease crisis requiring a special response until

around 1450” (Watts 1997:2).

The mortality rates in the first epidemics were appalling - up to half of the population of some cities died in 1348 - and they inspired new and more stringent strategies against epidemic disease. At first, city governments merely resurrected traditional measures, reiterating prohibitions against dirt and odours. [Park 1992:87]

As suggested by Park, it was the “appalling mortality rates” that inspired more effective quarantine measures rather than a pre-plague response resulting from the fear of a pandemic. Following the initial outbreak of the plague in Europe, then, effective quarantine measures were institutionalized between 1374-1383 in Milan, Venice, and Ragusa (Rosen [1958] 1993:44-45), and by the fifteenth century quarantine measures for ships and travellers were established in most Italian cities (Park 1992:87). The fact remains, then, that quarantine measures were not put into place until plague had already begun to take its toll upon the mortality of the West because Europeans did not see it as a serious threat prior to the year of 1348.

#### *Explaining the Lack of a Pre-Pandemic Response*

In the fourteenth century, the misfortunes that haunted the medieval European were “understood primarily in terms of man’s relation to God” (Rosenberg 1988:5). In addition, scholars also began to reinterpret the medical writings of ancient Greeks such as Hippocrates and Galen; consequently, the culture of the medieval period incorporated a dualism which suggested that “plague was both a divine penalty and a natural phenomenon” (Pullan 1992:105).

Fourteenth century Europeans understood the idea of contagion. They had quarantined lepers for sometime in an effort to prevent infection among the population

(Rosen [1958] 1993:43). The idea of contagion, however, was an *undeveloped* theory which relied upon religious dogma, ancient medical texts, and immediate observation. It is no wonder that Europeans interpreted such common observations as fog, steam rising from water, and other forms of miasma such as mist or smoke as “corrupted air” given the description of smoke and brimstone in the *Revelations* and Hippocrates’ theory of corrupted air (Rosen [1958] 1993:46). Consequently, “[t]his concept of a corrupted atmosphere, visible in the form of mist or smoke, drifting across the world and overwhelming all whom it encountered, was one of the main assumptions on which the physicians of the Middle Ages based their efforts to check the plague” (Ziegler 1969:14).

### **The Duration of Disease: Pandemics versus Epidemics**

During the Middle Ages, disease was projected upon others rather than the self. For example, Europeans blamed the Jews, the poor, and immoral people for the plague. (see Watts 1997 pp.9,10,16; Cohn 1961 pp.130,135,138-139; Ziegler 1969). Blaming disease on others is not isolated to the plague of 1348: leprosy was believed to be a sign of immorality, syphilis “belonged” to foreigners, and AIDS was defined within the parameters of immoral sexual behaviour. If we examine the political response to disease we find that

Cotton Mather called syphilis a punishment which the Just Judgement of God has reserved for our Late Ages. . . . Jesse Helms and Norman Podhoretz . . . [depicted AIDS] as a visitation specially aimed at (and deservedly incurred by) homosexuals, while another Regan-era celebrity, Pat Buchanan, orates about AIDS and Moral Bankruptcy, and Jerry Falwell offers the genetic diagnosis that AIDS is God’s judgement on a society that does not live by his rules. . . . Bishop Falcao of Brasilia . . . declares AIDS to be the consequence of moral decadence,

and the Cardinal of Rio de Janeiro, Eugenio Sales . . . describes AIDS as God's punishment and the revenge of nature. [Sontag (1978,1989) 1990:148-149]

According to Sontag, AIDS provides an excellent example of the classic script for plague:

AIDS is understood in a pre-modern way, as a disease incurred by people both as individuals and as members of a "risk group" - that neutral-sounding, bureaucratic category which also revives the archaic idea of a tainted community that illness has judged. . . . disease invariably comes from somewhere else. . . . [and] plagues are invariably regarded as judgements on society. [(1978,1989) 1990:134-142]

## **Discussion**

The explanations that are offered for disease, then, tend to draw attention to sociocultural and economic differences between cultures and subcultures. Disease is - and has been - used as a form of cultural critique. The explanations that are offered to explain disease remain epistemologically cogent if the disease remains within the parameters established through culture. The death of a few "good" people can be explained, or overlooked if the duration of the disease is short. In other words, if the disease is an epidemic - implying a short duration and isolated geography - the explanations that have been offered for the disease may provide a satisfactory resolution. On the other hand, though, if the disease has a lengthy duration, the disease will inevitably defy the initial explanations that have been offered. It will not differentiate between Christian and non-Christian, pious and impious, or priest and prostitute. New explanations for the disease will develop, while former stigmas lose significance only in the attempt to explain why the disease is not doing what the culture had predicted.

## **The Black Death: Discussion**

The Black Death created a crisis in medieval society, and although new social movements developed in response to the plague, the cultural outcome was comparatively different from that of Greece or early Christianity. It is only partially true to suggest that no new cultural beliefs developed as a result of the Black Death in Europe. If we are looking for a medical paradigm that is comparable to the Hippocratic movement or early Christianity, we will not find it. If, however, we are looking for the development of new social movements, there are plenty; take, for example, the Peasant's Revolt, the development of Public Health Policies, the anti-clerical movement in education, the rejection of the Doctrine of the Transubstantiation, or the Great Schism of 1378-1417 (see Duffin 1999; Porter 1997; and Ziegler 1969:277ff for a discussion). Unfortunately, these topics are not the concern of this thesis. The movements that are of concern are those relevant to mediculture, and although something might be said regarding the development of public health, George Rosen ([1958] 1993) has already extensively covered that topic.

Given the above, it is difficult to suggest that there was a steady state during times of plague in the middle ages because of the well documented social, religious and political schisms. There is no doubt that anomie and disillusionment persisted. The anomie and disillusionment that developed during the Black Death, however, was not a result of the inability to explain the Black Death. The contrast between Christians and Muslims has provided an example of a society's ability to create more stress through its beliefs (culturogenic stress), and the ability of another society to circumvent anomie and

disillusionment.

Muslims explained the epidemic *positively* by asserting that the plague was analogous to a holy war. In Muslim communities economics and religion reinforced each other. Similarly, Christians provided an explanation for the epidemic; however, their explanation was not as optimistic as the Muslim's. The negative explanation caused culturogenic stress. This explains the development of anomie and disillusionment, and social, religious, and political schisms in Christian communities.

In addition to the production of culturogenic stress, there were physical attempts to control the plague; however, these attempts, in the form of quarantine regulations restricted one from engaging in accepted cultural practices. It contributed to the decay of the economy and as a result an effective mode of reducing the incidence of plague affected the culture in destructive ways. It only reinforced ideas of punishment because individuals were not able to worship God or deliver proper burial services.

I think that it is fitting to conclude this chapter by citing a commonly held opinion regarding times of plague. According to B. G. Niebuhr:

the plague not only depopulates and kills, it gnaws the moral stamina and frequently destroys it entirely; the sudden demoralisation of Roman society from the period of Mark Antony may be explained by the Oriental plague. . . . In such epidemics the best were invariably carried off and the survivors deteriorated morally.

Times of plague are always those in which the bestial and diabolical side of human nature gains the upper hand. Nor is it necessary to be superstitious or even pious to look upon great plagues as a conflict of the terrestrial forces with the development of mankind. . . . [Niebuhr in Zeigler 1969:267]

The anthropology that has been presented in this thesis has shown us the falsity of this opinion. Of course there will be high mortality and suffering with any epidemic disease,

especially with virgin-soil epidemics; this cannot be denied. The comparative study of Christian and Muslim responses to the plague of the Black Death has taught us that times of plague are not always those that have been described by Niebuhr, nor do they present a conflict of the terrestrial forces with the development of mankind. Quite often they contribute to the development of humankind through cultural revitalisation as we have seen in Greek and Christian examples.

## **CHAPTER SEVEN**

### **THE EPIDEMICS OF SMALLPOX AND SYPHILIS, AND A COMPARATIVE DISCUSSION OF EPIDEMICS DURING THE HISTORICAL PERIOD**

The only connection to be found between smallpox and syphilis is in the anecdote that in exchange for the Europeans' smallpox, the Amerindians reciprocated with the gift of syphilis. While some contest that syphilis did not originate in the New World, the fact remains that syphilis behaved like a new disease in Europe and smallpox was a new disease in the New World. For a discussion of New/Old World disease exchange, however, see Duffin (1999:145-46), McNeill ([1976] 1998:187-190, 208), Porter (1997:167), and Watts (1997:130).

#### **Spanish Conquest and Disease in the New World**

Historically, one of the most well known experiences of mass cultural change occurred in the New World during the period of early European contact. Based upon Spanish records, it is suggested that within fifty years after the Spanish had landed, the Amerindian population (in central Mexico) had declined to three million, that is, one tenth the amount it was at contact, which amounts to a ninety percent mortality (Harris 1994:592; McNeill [1976] 1998:213; and Watts 1997:84). Further, there is a sudden shift from traditional Amerindian beliefs to the adoption of Christian systems of belief. As such, there are a number of hypotheses put forth to explain how the Spaniards (small in number) could conquer the great civilizations of the New World (Cook 1998:1) and impose a new belief system upon the Amerindians.



In the sixteenth century, it was suggested that the will of God allowed the European subjugation of the Amerindians. For example, a friar in New Spain claimed that “concerning the plagues that we see among [the Indians] I cannot help feel that God is telling us: ““You are hastening to exterminate this race. I shall help you wipe them out more quickly”” (de Mendieta in Stannard 1992:219). A hypothesis related to the idea of mass extermination, the Black Legend, assumes that the Amerindians succumbed to the Spaniards because of the cruelty that was inflicted upon them. With this argument it has been further assumed that technology gave the Europeans an advantage over the indigenous peoples of the New World. For example, “everyone knows Hernando Cortez, starting off with fewer than six hundred men, conquered the Aztec empire, whose subjects numbered millions” (McNeill [1976] 1998:19). To avoid any misinterpretation, there is a dash of sarcasm in this statement.

In “Firearms Against Native Arms” (1983), Townsend argues that complex technology is often mistakenly conceived as superior technology and is used to account for superior/inferior socio-political relations. As such, Townsend addresses this misconception and suggests that any hypothesis which assumes that modern technology can explain “why conquest was possible and how superior status was maintained” (1983:1) is inadequate. What McNeill ([1976] 1998) and Townsend (1983) have in common is their scepticism towards an assumption that has been accepted historically as an *a priori* fact. Further, they both point to the question of infectious disease and its impact upon world history.

McNeill suggests that disease, prior to contact, was unimportant from an

epidemiological point of view ([1976] 1998:208). Disease is viewed as such because “the inhabitants of the New World were bearers of no serious infection transferable to the European and African populations” (McNeill [1976] 1998:208). Archaeological identification of bone lesions indicates the presence of some sort of infection (see Cook 1998; and McNeill [1976] 1998). Further, the presence of intestinal worms and protozoa have been identified, but the varieties are incomparable to those found in the Old World. Based upon the evidence available, McNeill concludes that “Amerindian communities suffered little from disease” ([1976]1998:210).

To be sure, Cook argues that prior to contact, *illness definitely existed* in the New World and people died from infections (1998:17). Recent research has documented the following diseases for the pre-Columbian period: Histoplasmosis, tuberculosis, leishmaniasis and Chagas’s disease, amoebic dysentery and intestinal worms, rickettsial fevers, salmonella and bacterial pathogens (staphylococcus and streptococcus), and nonvenereal treponema (Cook 1998:17).

When inquiring into the histories of past peoples, then, it is difficult to assess their health. Providing there is a good archaeological record, pathological conclusions about health can be drawn, but in the absence of such records how does one approach the question of health? In *Plagues and Peoples* ([1976] 1998), McNeill suggests that disease has always been present in human populations; however, what needs to be considered is the established equilibrium between disease and humans. In the New World, disease was present and there was an established equilibrium, but the introduction of new diseases to these peoples disrupted that balance. From this standpoint the Amerindian people were

not an Old World disease-experienced population and as a result the “critical factor in the European conquest and collapse of New World civilization was disease. . . .”(Cook 1998:17) and not the possession of weapons (Townsend 1983).

### **The Amerindians’ Response to Epidemic Disease**

It was the second voyage of Columbus that brought the deadly diseases to the New World (Cook 1998). The diseases introduced to the New World were smallpox, measles, bubonic and pneumonic plague, typhus, and cholera (Cook 1998:18). As suggested by McNeill ([1976] 1998:212), there are a number of factors that contributed to the Amerindian’s vulnerability to the new diseases, but in the end it was the lack of experience with these diseases that led to the demise of the Amerindians.

The Amerindians represented a virgin population with no inherited or acquired immunity to these new diseases. The Amerindians were thus faced with a phenomenon that produced massive mortality rates. Where mortality had never been so great, an explanation for this demographic decline was indeed in order. Aside from having to explain why they were all dying, the Amerindians were presented with a further paradigmatic challenge. The Amerindians were placed in a similar situation to the Roman-pagans during the epidemics of the early common era. In the same way that the pagans saw a difference between Christian survivors and pagan, the Amerindians saw an absence of the disease among the newcomers. William Bradford reported in the seventeenth-century that “[t]his spring, those Indeans that lived aboute their trading house there fell sick of the small poxe, and dyed most miserably. . . . [Yet] not one of the

English was so much as sicke, or in the least measure tainted with this disease” (Bradford 1634 in Watts 1997:93). Unless we are willing to accept that the Amerindians were not able to notice the differential in morality between themselves and the Europeans, we must conclude that this “differential” played a part in Amerindian cultural change.

The Amerindian response to the epidemics, aside from suicide and infanticide (McNeill [1976] 1998), developed out of their traditional cultural beliefs. In addition to witchcraft, sorcery, or malevolent spirits, Amerindians also believed that deities were often responsible for many unexplained phenomena (McNeill [1976] 1998:216). Following the logic of their own beliefs, then, it was reasoned that epidemic disease was a form of divine punishment ([1976] 1998:216). Further, because of the evidenced difference between Amerindian and European mortality rates, it may have been further reasoned that the gods of the newcomers were more powerful; why else would they survive while all others were dying? Given this interpretation of the epidemic, “native authority structures crumbled; the old gods seemed to have abdicated. The situation was ripe for the mass conversions recorded so proudly by the Christian missionaries” (McNeill [1976] 1998:217).

### **The Contribution of the Missionaries and Revitalization**

It is often assumed that the cultural changes that occurred during the epidemics of the New World were directed by the Spaniards and the missionaries. For example, in *Indian Population Decline*, Jackson suggests that during the epidemics of the New World, there were “forced changes in social and economic organization, culture and

world view" (1994:3). This hypothesis falls into the same type of questionable explanation that was offered for the demographic decline of the Amerindians, namely the Black Legend. There has been another hypothesis offered in a similar attempt to explain Spanish/Amerindian relations:

[T]he White Legend attempts to present a sanitized version of the Spanish conquests in the Americas, and to minimize the negative impact of the conquest on the Indians while stressing what is to be considered to be the positive aspects of Spanish colonization, namely the introduction of a *superior culture and religion*. [Jackson 1994:4, emphasis added]

The cultural change that occurred in the same period as New World epidemics, then, has been attributed to the newcomers; the change has been understood as a forced change brought about by the Europeans. The problem with this hypothesis (cf. Ackerknecht's remarks regarding the Black Death) is that it does not underscore the power of a paradigm to direct new changes in cultural beliefs in times of crises. At the same time, this theory fallaciously assumes (cf. the gun hypothesis) that European culture was superior and this was recognised by the Amerindians. At risk of belabouring the point, it has been assumed (in similarity to [positivistic] historical thought regarding the end of Homeric medicine and Paganism) that the transition from a so-called archaic Amerindian culture to the superior culture of Europeans was somehow inevitable.

Drawing upon the understanding of cultural change according to the model of revitalisation, it is evident that change often comes from within. In other words although change is stimulated externally, change might not be imposed upon a group of individuals, but rather it can develop out of group's desire for order and explanation. Thus, under situations of rapid social change, disruption, or any other stressful situation,

a gap develops between the culture (what ought to be) and what is actually observed in reality (Townsend 1984:145). Once the gap is large enough, or as suggested by Wallace ([1956] 1979), once stress has reached critical levels, individuals begin to search for or create explanations that will be more satisfying than the former. If successful, a coherent explanation and course of action for the situation in question will result.

Similarly, we can suggest that based upon our understanding of Amerindian religious doctrine, the Amerindians responded to the epidemic in the sense that has been described above and not according to hypotheses such as the Black or White Legend. Rather, Amerindian culture provided an explanation for the epidemic, namely that the gods were punishing them. Given the differential in mortality between the Europeans and Amerindians, the reason for this punishment was quite basic and the Amerindians agreed that "the white newcomers had divine approval for all they did" (McNeill [1976] 1998:217). In response to the question of conversion: the Amerindians converted to Christianity in an effort to eschew further punishment. The conversions that were proudly recorded by the missionaries were not a result of their preaching. Rather, Christianity was the system of belief that was accepted by the Amerindians because their paradigm prescribed it. In other words, instead of assuming that the Amerindians simply gave into the Europeans, we can assert that natives adopted Christianity in an attempt to revitalise their cultural life.

From the Amerindian point of view, stunned acquiescence in Spanish superiority was the only possible response. . . . When the divine and natural orders were both unambiguous in declaring against native tradition and belief, what ground for resistance remained? The extraordinary ease of Spanish conquests and the success a few hundred men had in securing control of vast areas and millions of

persons is unintelligible on any other basis. [McNeill [1976] 1998:217]

Following McNeill ([1976] 1998), the epidemics of New World also explain the adoption of a new system of belief, because of the social effects of the epidemic and the strains it placed upon culture.

### **The Epidemics of the Renaissance - Syphilis *et al.***

In "The Black Death and the Silver Lining" (1991), Faye Getz argues that the Black Death was responsible for the mighty rebirth of culture and intellectual life in Europe (cf. Duffin 1999:143). There was, undoubtedly, a period of revolt prior to and during the Renaissance, and perhaps disease is at its base. To be sure, towards the end of the fifteenth century an assortment of epidemics afflicted Europe including: the English sweats (typhus), jail fever and the black assizes, the English disease (Rickets), the black death of the Sea (Scurvy), the diseases of the workers, smallpox, the bloody flux (diphtheria), malaria, a 'smouldering' bubonic plague, and of course syphilis (for a discussion of these epidemics, see Rosen [1958] 1993:62ff). Whether or not syphilis was brought back from the New World to the Old World is unimportant as long as we recognise that whatever the case may be syphilis acted as disease that has invaded a previously isolated community for the first time (McNeill [1976] 1998:79; and Porter 1997:167). As suggested by McNeill, "syphilis broke out so virulently at the end of the fifteenth century, it acted like a new disease among the Europeans, exhibiting unusually florid symptoms and meeting minimal systematic resistance from the human bodies it invaded" ([1976] 1998:188).

Prior to the popularity of Fracastoro's medical poem, *syphilis, sive morbus gallicus* (1530), and hence the subsequent adoption of the name syphilis, the disease was known as the Neapolitan disease by the French, the French disease by the Italians and included other vernacular names such as *la grosse verole*, and *die blattern* (Rosen [1958] 1993:72). It was referred to as the Spanish disease in Holland, the great pox in England, the Russian disease in Siberia, the Polish disease in Russia, the Christian disease in Turkey, the Portuguese disease in India and China, the Castilain disease in Portugal, and *apa no britannia* in Tahiti (Porter 1997:166).

Rosen has concluded that because of the variety of names that have been used to describe syphilis, it can be inferred that syphilis was recognised as a new disease during the Renaissance ([1958] 1993:72). The names that have been given for the disease in question, however, are not merely taxonomical, but rather contain the element of blame. According to Porter "[m]any believed that it was God's will that a disease due to vice should wreak great havoc. . . ." (1997:176). As a result of the threat of syphilis, authorities closed the bath-houses, stews, brothels, and victimized prostitutes while prostitution was a practice that was socially acceptable for that time (Porter 1997:176; and Rosen [1958] 1993:73). Nor did the recognition of the contagious nature of syphilis contradict the belief in divine punishment. For example, while Fracastoro's allegorical poem asserted that a shepherd named Syphilus was punished by Apollo for worshipping a king, he also asserted the doctrine of contagion, diagnosis, and treatment for the foul disease within it.

The theory of disease in the Renaissance was diverse. In addition to the religious



conceptions,

disease . . . was based upon the conception of Hippocrates . . . which in some mystic way [was] associated with the old Aristotelian elemental qualities. . . . Another one of the common beliefs of [the] day was the doctrine of signature. . . . [and] the peculiar practice of sympathetic remedies. [Jaffe 1976:20-21]

It was against these beliefs that the initiators of the Enlightenment fought. For example, Philippus Aurelius Theophrastus Bombast von Hohenheim, or Paracelsus (1493-1541) wrote:

I shall not in my time be able to overthrow this structure of fables, for they are old and obstinate dogs who will learn nothing new and are ashamed to recognise their folly. That, however, does not matter much, but it does matter that, as I hope, the young men will be of a different character when the old ones have passed away. [Paracelsus in Jaffe 1976:21]

As noted by Bernard Jaffe, Paracelsus' "contribution was no one epoch-making discovery, but rather the vital impetus he gave to the study of chemistry for the curing of ills of the body" (1976:21).

### **The Apparatus of Paracelsus**

During a feast of St. John at the University of Basel, Paracelsus, with a book of Avicenna's *Canon of Medicine* under his arm, turned to his students and ordered them to bring him

all the books of the old masters of alchemy and medicine which clutched the thoughts of men in a paralyzing grip. "You shall follow me," he shouted, "you Avicenna, Galen, Rhazes, you gentlemen of Paris, Cologne, Vienna, and whomsoever the Rhine and Danube nourish; you likewise Athenians, Arabs, Greeks and Jews, all shall follow me. The latchets of my shoes are better instructed than you all. All the universities, and all the old writers put together are less gifted than the hairs of my beard and the crown of my head."

Then into the flames of the roaring fire he threw the books of the masters,

and as the fire consumed these evil scrolls he cried out to his students, "All misery shall be carried away in this smoke." [Jaffe 1976:13]

This rejection of past authority is not unique in the study of medicine. An epistemic revolution was occurring in all areas of culture. The printing press was being introduced by Gutenberg, Luther was ushering-in the Protestant Reformation, Copernicus was challenging the authority of Ptolemy, Descartes and Bacon were setting philosophy free from the tyrannical authority of the Church, while Paracelsus introduced chemistry to medicine.

"Learned discussion of syphilis was as florid as the symptoms of the disease"

(McNeill [1976] 1998:245). Joseph Gruenpeck (c. 1473-1532) wrote regarding syphilis:

I have seen scourges, horrible sicknesses and many infirmities affect mankind from all corners of the earth. Amongst them has crept in, from the western shores of Gaul, a disease which is so cruel, so distressing, so appalling that until now nothing so horrifying, nothing more terrible or disgusting, has ever been known on this earth. [Gruenpeck in Porter 1997:167]

"The Paracelsians argued passionately that theirs was a new and violent age - one that had spawned ravaging diseases unknown to the ancients. . . . As a result they needed new medicines, more potent than the traditional Galenicals prepared from herbs" (Debus 1978:29). According to McNeill, syphilis "became one of the stock arguments for resort to the Paracelsian chemical pharmacopia" ([1976] 1998:246). The fundamentals of medicine were thus called into question and the only logical recourse was to observe the potency of Galenical versus Paracelsian cures. "The swift development of European medical practice to levels of skill exceeding all other civilized traditions resulted" (McNeill [1976] 1998:246).

## Discussion

The subsequent incorporation of chemistry into Western mediculture is significant because it illustrates how a group of individuals *consciously* used an epidemiological crisis to assert a new approach to medicine. It is true that in some ways this revitalisation movement is not as grand as the Hippocratic movement or the rise of Christianity. Nevertheless, the Paracelsians did make a substantial contribution to the development of modern science and medicine (Jaffe 1976:21). This contribution cannot be understated.

Whether or not Paracelsus' ideas 'revitalised' the mediculture of the Renaissance is debatable. Many physicians, as Paracelsus has noted, were quite satisfied with the ancients' medical theories. As for the young academic audience, there is no question that these new approaches to medicine, and science for that matter, were revitalising. The period that followed the Renaissance was a period of religious, philosophical, and scientific unrest; in a word, it was a period of immoderate cultural change.

What the founders of modern science . . . had to do, was not to criticize and combat faulty theories, and to correct or replace them with better ones. They had to destroy one world and to replace it with by another. They had to reshape the framework of our intellect itself, to restate and to reform its concepts, to evolve a new approach to Being, a new concept of knowledge, a new concept of science. [Koyre 1968:20-21]

Anthropologically, during the Enlightenment a new culture was developed in the West through an epistemic revolution, and medically, many of the medicultural changes that occurred were a result of the Paracelsians' juxtaposition between theory and disease.

## **A Comparative Discussion of Epidemics During the Historical Period**

Before discussing the epidemics of the twentieth and twenty-first centuries, it is appropriate to conclude this examination of the historical period with a brief comparison as outlined in the introduction of this thesis. Five major disease episodes during the historical period have been examined. It has been maintained that each of these epidemics has been the external stimuli to medicultural revitalisation. In this chapter I have argued that we must be careful when examining human history because quite often the historical record has been misconstrued. Townsend's paper regarding the issue of native arms and firearms clearly demonstrates the erroneous assumptions that are associated with New World conquest. Similarly, the people of the New World did not succumb to nor adopt the ways of the Europeans because they were 'weak-willed' as the Black Legend would have us believe. The Eurocentric hypothesis, the White Legend, which accounts for cultural change by asserting European cultural superiority, does not explain the circumstances of cultural change in the New World either.

The cultural changes that occurred during the period of contact in the New World are best explained by taking into account the effects of disease upon a virgin-soil population. The argument that disease was responsible for the changes that Amerindians underwent during the European conquest and thereafter is not a new thesis. Many anthropologists recognise the importance of disease to the conquest of the new world (for example, Cook 1998, McNeill [1976] 1998, Watts 1997, Harris 1994, and Townsend 1983); however, the application of the model of revitalisation, in an attempt to understand the process of cultural change, has not been applied to any subject outside of

the development of new religious movements.

Anthropologically, the epidemics discussed in this thesis have been examined from an etic and an emic perspective. For example, the purpose of this thesis is to understand the impact that epidemic disease has upon medical systems, and how it has functioned as an external force which has incited cultural change. Emically, however, we have come to understand how the disease was interpreted and what it meant for those who suffered. The emic perspective is, therefore, an important part of this study. In other words, if we cannot know how disease was perceived by those that it affected, then the claim that epidemic disease has incited cultural change is meaningless. As noted in chapter three, revitalisation theory goes beyond the traditional theories of culture change and recognises that external and internal factors must be taken into consideration. Epidemics do not directly challenge culture. People lose faith in their culture and then challenge it.

The process of cultural change as a response to the stresses that are imposed upon a society by epidemic disease has been effectively explained by referring to the model of revitalisation. In chapters four through seven I have presented situations where epidemic disease has caused extreme mortality among the societies in question. Within the model of revitalisation we accept that a society will tolerate stress. Inconsistencies between belief and experience are a normal part of cultural life; however, when the incongruity between what ought to be the case and what actually is the case is no longer tolerable, the society becomes disillusioned with its explanatory system. For example, during the plague of Athens, Thucydides informed us that people lost faith in traditional

explanations for the disease. The epidemics of the common era presented a similar problem for the Roman pagans and the Amerindians. During these epidemics of disease, as the tolerable limits of stress were transgressed, traditional explanatory systems failed to explain the disease, and a new explanation emerged in an attempt to produce a more satisfactory cultural life. The emergence of new explanatory systems during time of plague are not coincidental. These changes in culture are a result of external and internal factors, namely disease and the inability to produce a satisfactory explanation for the resulting mortality.

The medical assertions of Hippocrates revitalised Greece's mediculture. They explained disease without reference to the gods and at the same time did not deny the existence of them. In contrast to Hippocrates' introduction of a new mediculture, the Christians denied the existence of the Roman gods and only gained converts because they seemed to be 'divinely favoured.' In other words, a new mediculture during the fourth century of the common era developed because of the disparity that was obvious between Christian and pagan mortality. The pagans had become disillusioned with their culture. It was just as ineffective as Homeric beliefs in time of plague. Conversions to Christianity during New World conquest bears a similarity to the early common era. In each situation the people in question confronted the fact, if only by perception, that the Christians were not dying as a result of the disease.

As I have illustrated in chapter five, pagans were syncretistic. They incorporated the gods of other people into their own culture in an attempt to produce a 'powerful' state through the strength of many gods. Christians, however, had only one God who

seemed to favour them over the pagans. It is also true for the Amerindians. By converting to Christianity, then, an attempt was made to revitalise the culture of the societies in question and avoid further demise.

Christianity explained disease in positive terms during the early common era and Renaissance. In the same way that Hippocrates offered an explanation for disease that went beyond the divine etiologies that were in popular use, supported experience, and thus offered a more efficacious epistemology, so too did Christianity.

Epidemic disease stimulates revitalisation through mediculture failure. As argued in the third chapter of this thesis, in order to maintain a steady state, the mediculture must be able to either deal with the disease efficaciously or epistemologically, meaning it must either cure or explain the phenomena. When traditional explanations fail, however, the society begins to experience anomie and disillusionment, and is ready to be culturally revitalised.

Explanations are not always positive. In contrast to the Hippocratic and Christian revitalisation discussed thus far, quite often explanations can be negative and produce cultrogenic stress. The comparative study between Christian and Muslim explanations for the Black Death provides a clear example of the difference. As I have argued in chapter six, there was no shortage of explanations during the Black Death in Christian Europe. These explanations explained the plague negatively. They caused the condemnation of foreign peoples, encouraged self mutilation and a preoccupation with the punitive will of God and the apocalypse. In contrast to the cultrogenic stress that was caused by the Christian's mediculture, Muslim culture explained the epidemic positively

and promoted cultural continuity. In contrast, plague in Europe only encouraged cultural fragmentation. Muslims while referring to the jihad did not flee or fear the epidemic, but rather saw an increase in religious functions, which stimulated Muslim economy. As more people entered the communities to preform religious rites and the like, more deaths resulted, which necessitated more religious functionaries.

Finally, the epidemic of syphilis deviates from the described epidemics because the theory of contagion was established and many physicians were satisfied with the Hippocratic and Galenic mediculture that was dominant during the Renaissance. There was, however, a growing dissatisfaction with the knowledge that was borrowed from the ancients. New diseases such as smallpox, typhus, and syphilis, were used as examples of diseases that were unfamiliar to the ancients. The Paracelsians provide an unequivocal example of a conscious movement to revitalise explanatory medical models and pharmacology by referring to epidemic disease. With that said, I have illustrated in this thesis that a theory developed in the anthropology of religion can be successfully applied to questions regarding cultural change and medical history.

Although there are important figures in any field, we cannot let our awe of their contributions obscure our understanding of cultural change. The Hippocratic Oath has served as the ethic of physicians for millennia (in various versions); however, to suggest that the introduction of a natural disease etiology was immediately recognised as more true than Homeric mediculture is simplistic. "How is it," I have asked, "that a new medical system, which was no more efficacious than traditional beliefs, replaces established explanatory systems without accepting the positivist or teleological models of



change prevalent in medical history?" The theory of cultural revitalisation developed by Wallace (1956) in the field of the anthropology of religion, and Glock (1973), has provided insight into this problem. People adopt new beliefs in times of extreme stress because their culture cannot fulfill the basic tasks to maintain a steady state. These movements are not simply religious, but rather they can be understood as movements that attempt to produce a new explanation for the phenomena in question as a response to anomie and cultural disillusionment.

Although I have remained within the parameters of medical history, if only diverging because of a broad definition of mediculture, this model can provide a base for understanding other forms of cultural change like philosophy, science, or politics. However, that is for other academics to take up as a separate project. Medicine like any other science, whether it is social or scientific, Western or Eastern, primitive or modern, is cultural and thus falls within the domain of anthropology. I have demonstrated in the course of seven chapters that there are contributions to be made to the history of medicine by approaching the subject matter anthropologically. The only question begging our attention is whether this theory can be usefully applied beyond an ethnohistorical analysis.

## **CHAPTER EIGHT**

### **THE QUESTION CONCERNING MEDICULTURE IN THE TWENTY-FIRST CENTURY, AND THE APPLICATION OF REVITALISATION THEORY**

According to McNeill "in 1976 many doctors believed that infectious diseases had lost their power to affect human lives seriously. Scientific medicine, they supposed, had finally won decisive victory over disease germs" ([1976] 1998:9). Westerners had undergone an epidemiological transition. Infectious disease as the main cause of mortality was replaced by chronic degenerative diseases. The twentieth century victory over infectious disease was short-lived though. As argued by McNeill ([1976] 1998:10; and Sontag [1978,1989] 1990:159-60), the first counteroffensive to this assumption was introduced with the appearance of AIDS.

Imagine a modern disease that became epidemic in two provinces and states. This epidemic would kill-off the entire population of their major cities, and would begin to infiltrate a third province. The epidemic in question would affect Saskatoon (SK), Regina (SK), Winnipeg (MB), and Thunder Bay (ON), and in the United States the epidemic would wipeout the Grand Forks (ND), Fargo (ND), Bismark (ND), Sioux Falls (SD), and Pierre (SD). Moreover, each year this epidemic would continue to kill 1,700,000 individuals. As interesting as it may be, the contribution of [reemerged] infectious disease to the mediculture of the twentieth and twenty-first centuries is not of concern here. What I am describing are the mortality rates that are credited to cardiovascular diseases and cancer in North America.

In previous chapters I have examined the effects of what have been termed virgin-

soil epidemics. The similarity between virgin-soil epidemics during the historical period and the chronic diseases of the twentieth and twenty-first centuries is found in our inability to produce an efficacious method to treat the diseases. There is an incongruence between what we believe as people who have been socialised in a scientific society and what we are currently experiencing epidemiologically: the so-called successes of modern medicine contrasted with the inability to cure diseases such as cancer, heart disease, diabetes, arthritis, and the like.

According to Sontag "people have started saying that there is an epidemic or plague of cancer" ([1978,1989] 1990:71). Sontag further suggests that because of the incidence and nature of cancer, "a surprisingly large number of people with cancer find themselves being shunned . . . and are the object of decontamination . . . as if cancer, like TB, were an infectious disease" (Sontag [1978,1989] 1990:6). Although Sontag changed her opinion regarding cancer when she wrote *AIDS and Its Metaphors* ([1978,1989] 1990:103), if one briefly surveys the material regarding cancer and its treatment on the internet (for example, [www.cancure.org/](http://www.cancure.org/); [www.cancerdecisions.com](http://www.cancerdecisions.com), [www.datadepo.com](http://www.datadepo.com), [www.alterhealth.net](http://www.alterhealth.net)), I do not believe that the attitudes regarding cancer have evolved as much as Sontag believes they have.

### **No Magic Bullet**

I will limit my discussion of disease in the twentieth and twenty-first centuries to the mortality that is caused by cancer in North American because the failure to cure cancer has stimulated a questioning of the effectiveness of medical science in the West.

In *No Magic Bullet* (1988), Brandt expresses a “disillusionment with the earlier hopes for universal disease eradication” (Duffin 1999:106). Similarly, the rise in alternative approaches to medicine<sup>6</sup> are not simply the result of diffusion, but also reflect Western disillusionment with modern medical methods. We only need to do a brief survey of the vitamins, herbs and extracts that are available in the health-food section of any grocery store in North America and the flood of books published on self-healing and alternative medicine to assert that there has been a shift in Western mediculture. Prior to the 1990s herbs, extracts, and other types of health foods were speciality items that could only be found in health food stores. In fact, a good friend of the family owned two of these types of stores. In contrast, the 1990s saw these speciality items move into stores that deal with sustenance items such as bread, milk, meat, vegetables and fruit, and superstores like Walmart. This shift in consumption indicates that Western culture is changing from one that was rooted in biomedicine to one that is more diverse in terms of the therapeutic options that are culturally available.

Following the Enlightenment’s mission - science for the betterment of humankind - “[t]he belief in the progressive power of scientific medicine to cure has been largely shared by policy makers and consumers, as well as by the medical profession itself. . . . It is only very recently that faith in the capacity of the medical profession and state medical services has begun to falter”(Cancer Cure Foundation, Accessed Sept. 29, 2001). According to the Cancer Cure Foundation “[c]onventional medicine is failing in the fight against cancer. After decades of research and the expenditure of billions of dollars . . . the cancer rate continues to climb. . . . [and] conventional medicine is further from a cure

than when the search began” (www.cancure.org/ Banner, 2001). The question concerning mediculture asks if anomie and disillusionment are active in Western societies, and if there is a societal trend that is turning to a new paradigm in an attempt to produce a more satisfactory belief system.

The disenchantment with mediculture in the West can be evidenced in anti-alternative medicine movements. For example, the internet site [www.quackwatch.com](http://www.quackwatch.com) is a resource intended to provide information to potential alternative medicine consumers. The fact that academics such as Steven Novella, Assistant Professor of Neurology at Yale University School of Medicine, Elizabeth M. Whelan, President of the American Council on Science and Health, along with contributions from the *Journal of the American Medical Association*, the *New England Journal of Medicine*, the *AMA Archives of Dermatology*, and an advisory committee consisting of 139 academics and/or healthcare professionals - who have all felt it necessary to address the situation of alternative medicine in the United States - makes us raise our eyebrows. In short, if the public was not becoming disillusioned with the medicine that is available to them, there would be no need for these academics and medical professionals to support an anti-alternative medicine movement<sup>7</sup>.

In his essay, “Be Wary of Alternative Health Methods”, Stephen Barrett is distressed by the fact that “[d]uring the past few years, most media reports have contained no critical evaluation and have featured the views of proponents and their satisfied clients” (2001:1). Anthropologically, we can look at this phenomenon differently than Barrett has. For example, it might be argued that Barrett, as a medical

doctor has a genuine interest in the health of people, as well as in the integrity of his profession, and this includes protecting them from the alleged quacks. The media, as Barrett argues, has only presented one side of the picture, and a dangerous one at that. This is fine; however, the fact that the media has uncritically presented alternative medicine without scientific critique suggests that the media encourages the public's anti-science stance. In other words, the media focusses upon a topic not because people are disinterested in it, but rather because they know that what is popular sells. The media, then, is building upon the public's disillusionment with scientific medicine as are the grocery stores.

As noted by Barrett "[t]he alternative movement is part of a *general societal trend* toward rejection of science as a method of determining truths" (2001:2, emphasis added). It is interesting that Barrett dedicates the rest of his essay to what constitutes science and what we believe as proponents of science as if it was a fact that ought to be considered. In other words, if people are in fact becoming disillusioned with modern medicine - resorting to arguments that refer to the scientific method and what constitutes knowledge in that paradigm (exactly what they are rejecting) - misses the point. The audience that he is writing for has become disillusioned with science and their adoption of alternative approaches to medicine *ipso facto* implies moving away from the scientific paradigm.

Another contributor to the quackwatch literature criticises alternative medicine because "quackery promoters . . . want to undermine public trust in food companies, drug companies, chemical manufactures, and the medical profession" (Whelan 2001:1; also

see Novella and Barrett 2001:1). Again, the alternative medicine movement has been [uncritically] presented as a group of people who want to undermine a number of organisations in American society. By asking why these people may wish to undermine, say the medical profession (unless we also accept that there is no point to the efforts of these people), Whelan might learn something about the public's perception of Western mediculture. If anything has been achieved in these essays, the contributors to the quackwatch have successfully demonstrated that alternative movements to scientific medicine *do exist*. And, as Barrett (2001:2) has suggested, if the alternative medicine movement is part of a "*general societal trend*" it has clearly surpassed the alternative status.

It is evident that these advocates of scientism continue to fail to understand medicine culturally. For example, according to a 1998 editorial in the *Journal of the American Medical Association*, "there is no alternative medicine. There is only scientifically proven, evidence-based medicine. . . ." (cited in [www.quackwatch.com](http://www.quackwatch.com)). How, then, do we describe the approaches to health in other societies? As published in the *AMA Archives of Dermatology* by Happle (1998), medical science still maintains the fallacious dichotomy that "the paradigm of medicine is rational thinking . . . [and] the paradigm of alternative thinking is irrational" (cited in [www.quackwatch.com](http://www.quackwatch.com)). It is absurd to posit that science rests upon an unprovable metaphysical presupposition and at the same time deny other constructs of health because they do not accord with our model. To be sure, "[s]cience assumes that in order to develop a coherent body of knowledge, it is necessary to *assume* that supernatural powers do not exist or, if they do exist, they do

not interfere. If such interference were possible, then all attempts at controlled experimentation would either be impossible or pointless” (Barrett 2001:3, emphasis added).

### **Discussion: Is Revitalisation a Useful Concept for Understanding the Present?**

It has been demonstrated that there are “movements” in contemporary Western society that are turning away from modern medicine. The Western approach to health seems to be the first method of choice; however, its failure to produce results, especially with the epidemic of the chronic diseases, has lead many people to look elsewhere for a cure. Certainly, there is no question that we have been socialised into a scientific culture. As such, it is understandable that our first method of treatment is medical science; this is our mediculture. I have argued in previous chapters according to revitalisation theory a steady state will be maintained within any given society as long as the tolerable limits of stress are not transgressed.

Since the 1970s infectious disease has not been a major concern in the West; rather our attention has been directed toward diseases such as cancer, heart disease, and the repair of degenerative diseases, for example, congenital hip dysplasia. Substantial advances have been made in many fields of medical science; however, there seems to be an amplification of dissatisfaction where such advances have not been made. As noted by Sontag “pessimism among doctors about the efficacy of treatment is growing. . . .” ([1978,1989] 1990:70). Following closely behind the inability to medically treat various forms of cancer have been accusations of conspiracy directed at the medical profession



(see Novella and Barrett 2001). Individuals have searched outside of conventional medicine for cures and as Barrett (2001:2) claims, many people have begun to believe, in accordance with a postmodern doctrine, that science is not necessarily more valid than any other practice and in the end have called into “question conventional notions of truth and reality” (Stenger 2001:1).

With all questions of efficacy aside, there are movements presenting an alternative to medical science in North America. With that said, we are left to understand why these movements have developed. In the same way that these advocates of alternative theories are developing conspiracy theories regarding various organisations and professions in North America, so are anti-alternative proponents. In contrast to Whelan’s (2001:1) assertion regarding quackery promoters who undermine the medical profession, the adoption of alternatives to scientific medicine illustrates that some people have become disillusioned with scientific medicine - and if Barrett (2001:2) is correct, many people have become disillusioned.

As argued by Arthur Kleinman in *Patients and Healers in the Context of Culture*, “studies of our own society . . . must start with an appreciation of health care as a system that is social and cultural in origin, structure, function and significance” (1980:27; also see page 35). In contrast, then, to the *Journal of the American Medical Association* (1998 editorial as cited in [www.quackwatch.com](http://www.quackwatch.com)), “medicine is a cultural system” (Kleinman 1980:31) and it will continue to undergo changes that are initiated not only by scientific advance, but also by cultural factors. Revitalisation theory provides a perspective from which we can understand these changes in Western mediculture. This

model thus asserts that the medicultural changes that are currently evident in North America are the result of a conscious attempt to produce a more satisfactory mediculture. In contrast to claims that "the popularity of alternative medicine. . . . in North America. . . include a mistrust of government, politicians, highbrow, elitists, professionals, and other authorities . . . . deregulation, loss of power of governmental agencies, increasing court awards for perceived injuries, and internet do-it yourself medicine" (Sampson 2001:1), anthropology can offer a more complex understanding of this phenomenon.

In this chapter I have not simply observed that people show a mistrust of various organisations and professions but rather have inquired into the reason for their mistrust. In the same way that the Greeks did not whimsically lose faith in their gods, North Americans also have a reason for their mistrust. Whether this mistrust is actual or only perceived is not of concern because the effects are nevertheless equal. The steady state of Western mediculture has been disrupted. Epidemics of chronic disease and the return of infectious diseases have been unsuccessfully addressed by Western medical science, especially for the sick and their family and friends. As an attempt to restore equilibrium, alternative methods of healing have been embraced - the process of revitalisation is underway in North American society. Whether or not this movement will produce a new mediculture depends upon its ability to successfully move through the stages and tasks of revitalisation as noted by Wallace (1956, 1966), notwithstanding the anti-alternative medicine movement's efforts to restore faith in scientific medicine. Ideally, a new mediculture will emerge during the twenty-first century, that synthesises scientism and alternative approaches to health and healing in a New Age.

### **The Further Application of Revitalisation Theory**

Acquired immune deficiency syndrome does not stray from the characteristics of infectious disease during the historical period (Barnett and Blaikie 1992:6). According to Sontag in North America “the emergence of a new epidemic disease, when for several decades it has been confidently assumed that such calamities belonged to the past, has inevitably changed the status of medicine” ([1978,1989] 1990:161). Given what has been learned about the societal response to epidemics in the past, we know why the AIDS pandemic is socially and culturally disruptive; however, the impact will differ from one society to the next.

Baker and Chapman, in *Man and Society in Disaster* (1962:363) argue that where “supernatural” explanatory paradigms dominate, certain patterns of behaviour emerge in response to disaster. These societies respond through magic (predictive, preventative, and manipulative), they scapegoat as a means of restoring order, and typically adapt by resigning to their fate (Baker and Chapman 1962:363). While it is true that societies use their beliefs to address the phenomena in question and scapegoat, the inquiry into historical cultural epidemiology has illustrated that people do not resign to “fate.” Even during the plague of the Black Death there were ‘movements’ that took an active approach to the problem of the disease as witnessed through the flagellants.

It is particularly disturbing that Baker and Chapman (1962) have employed a Hegelian understanding of history (cf. Hegel in *The History of Philosophy*, edited by Inwood 1989:357) to understand non-Western responses to disaster. Baker and Chapman seem to imply that these non-Western societies are not capable of producing new

explanations because of their ties to “supernaturalism” (1962:363). They claim that “[o]n many counts industrial-urban systems stand in sharp contrast to pre-industrial orders. The typical industrial-urbanite assumes by and large that man can remake and control the natural. . . . Passive acceptance of calamity is not the credo of industrial man (Baker and Chapman 1962:366).

In *Coping with Catastrophe. A Handbook of Disaster Management* (1991), Hodgkinson and Stewart note that in addition to the loss of loved ones, relatives and friends, and property, “people lose faith - not religious faith, but faith in the fact that B follows A and C follows B - the faith that life has a certain consistency or predictability” (1991:2). Although this model is flawed because it excludes cultural paradigms that are not grounded in scientism, it does express an important observation made during the course of this thesis. Disasters are particularly insidious because they not only cause demographic, economic, and social strife, but can also undermine the *explanatory capabilities* of the affected society.

### **Epidemics as Disasters and the Application of Revitalisation Theory**

Barnett and Blaikie (1992) have adopted disaster theory in an attempt to understand the long term effects of the AIDS epidemic in Africa. It is a useful way to understand the epidemic; however it is flawed like Baker and Chapman’s (1962) model. In contrast, I take an active approach to the problem of AIDS in Africa in an effort to illustrate the utility of the application of revitalisation theory. Although the purpose differs, there are a number of similarities, as there are differences, in our approach. For

example, we both understand that epidemic disease is like any other disaster and has demographic, social, economic, and cultural consequences.

Barnett and Blaikie (1992:6) argue that in addition to the consideration of physical specifications of the disaster (symptoms, mode of transmission, infectiousness, incubation period, and the outcomes of infection), the characteristics of the population at risk must be considered, which necessitates sociological and anthropological analysis. Similarly, Dennis Willms and Nelson K. Sewankambo (1995) have contributed to the understanding of the transmission of AIDS in the *Matare* community in Zimbabwe through ethnographic research. For example, in addition to commercial sex workers, truck drivers, and STD patients (elicited through epidemiological research), Willms and Sewankambo (1995) have found that alcohol sellers, mobile market traders, water vendors, traditional healers and their patients are also at risk.

Working from a similar thesis regarding explanatory systems, and in contrast to Baker and Chapman (1962), Barnett and Blaikie suggest that when

people are confronted by the uncertainty associated with a crisis they will undertake a range of experiments as their experience of the new situation increases. Such experiments can be seen as attempts to reverse the balance between the known and the unknown in a search for normalization. [1992:55]

Unfortunately, Barnett and Blaikie's (1992) assertions are not grounded in examples, not to mention the lack of a systematic model intended for application. A further criticism is that the esoteric tone present in the above citation and its ambiguity is distracting. For example, what are these "experiments" that are undertaken - are they testing a hypothesis? Moreover, how will they know when they have reached "normalisation" -

what kinds of indicators are there, if any?

Barnett and Blaikie (1992) assume that there is a necessary correlation between the duration of the disaster and social, economic, and cultural responses. As argued in chapters three and six of this thesis, we cannot assume that all societies will respond to phenomena in the same way. Although the expected duration of a disaster may be a useful *indicator*, we cannot allocate social and cultural resources based upon an assumption. In addition, according to Barnett and Blaikie (1992), strategies to change high risk behaviour requires “*an accurate explanation of how the disease is transmitted*” (1992:41, emphasis added). On the contrary, as I have argued in “The Role of Medical Anthropology and Anthropological Contributions to Improving Health Cross-Culturally” (1999), by drawing upon examples such as Peter Wellin’s “Water Boiling in a Peruvian Town” (1955), such an approach to cross-cultural healthcare is ineffectual.

More specifically, following Willms et al. (1995), I have argued that “if the biomedical model challenges other worldviews, then any attempt to introduce health programs to other countries will be met with resistance. In the attempt, then, to improve health cross-culturally, the worldview of each culture must be reconciled in a mutually agreeable model of and for disease and illness” (Popowich 1999:39). “Human beings are rational creatures. However, their rationality is only applied to problems in the context of the knowledge and beliefs they have” (Barnett and Blaikie 1992:39). In Zimbabwe, Willms et al. (1995) found that “AIDS is categorized along with *njovela*, *mvirapo* . . . and other diseases caused by sex” (1995:TSB-2) such as *runyoka* or *rukombe*, which are diseases that are thought to be punishments for engaging in culturally inappropriate sex

such as adultery (Willms et al. 1995). As a result "AIDS is thought to be caused by immoral sex and non-sexual means of transmission are by definition not recognized" (Willms et al. 1995:TSB-2) and HIV/AIDS infections continue to rise.

With the above in mind, it is perfectly rational, then, to evoke magic if the cultural paradigm asserts that disease is caused by malevolent spirits, witches or sorcerers. Similarly, if HIV/AIDS is understood as a disease that is acquired through immoral sex, any attempt to introduce explanatory models that principally refer to the biomedical understanding of infection will be met with resistance. In contrast, if we attempt to introduce new knowledge into a society when they are within the tolerable limits of stress, our efforts must be aimed at reconciling the biomedical model and the prevailing culture. If we attempt to introduce new knowledge once the tolerable limits of stress have been transgressed, we are effectively causing cultural change.

There are times, then, when a society is 'culturally vulnerable.' When we are undertaking any project to improve health cross-culturally, we must be aware of the stages of revitalisation and the possible implication of our actions. For example, during the 'Period of Increased Stress' the society will not accept our explanatory models over their own. If we attempt to improve health during the 'Period of Increased Medicultural Distortion' - when anomie and disillusionment have set in - it is necessary for the participants involved to examine their strategy ethically. We need to ask what the effects of the introduction of new explanatory models into a society with a defunct explanatory model means for those people culturally. Moreover, what types of changes may result through cultural change because our healthcare strategies may affect the society's

demography, economy or mode of subsistence, and physiology in ways that we cannot predict.

### **Discussion**

In the late 1980s, *Social Research* sponsored a public conference on the consequences of epidemic disease. Although biomedical technologies had made considerable breakthroughs in the area of diagnosis, medical therapeutics fell behind (Thomas 1988:385). The epidemic of HIV/AIDS "has made it clear that we are not masters of life" (Rosenberg 1988:328). More importantly, people are trying to adopt the traditional roles that medicine has offered because medical science is failing to provide us with them (Nelkin and Gilman 1988:363). In particular, "AIDS has threatened our sense of medical security. After all, the age of transmissible, lethal infections was deemed long past in the Western world. Ours was the age of chronic disease - heart disease and cancers. . . ." (Brandt 1988:425). Consequently, according Arien Mack "focusing attention on the many ways in which disease, particularly catastrophic infectious and contagious diseases, are and have been both biologically and socially defined might help lead the way to a calmer and more effective public response to the problem" (1988:324).

Perhaps diseases such as cancer have lagged behind because of the impact they have had upon North America. Although there is an epidemic of chronic disease, for example cancer, there has not been an overt attempt to place blame for these diseases - at least not in the same way that there has been for HIV/AIDS (see Nelkin and Gilman 1988 pp.361-362 and 374 on blaming AIDS on the CIA). In "Placing Blame for Devastating



Disease" (1988), Nelkin and Gilman argue that although there is considerable public frustration with the slow progress in cancer treatment, placing blame upon social and political institutions has been diverted by attributing cancer to one's lifestyle (1988:372). As noted by Brandt (1988), perhaps the threat of infectious disease was something that the biomedical North America was not yet ready for, culturally. At the emic level of analysis, then, the epidemic of AIDS is culturally significant because of what it means to members of North American society. It has reminded us, or better yet, demonstrated that biomedicine is not as effective as we believed it was.

The National Cancer Institute (NCI) reports that cancer rates are dropping; however, organisations such as the Cancer Cure Foundation (citing the American Cancer Society) report differently ([www.cancure.org.com](http://www.cancure.org.com) 2001). Susan Pepper of the American Institute for Cancer Research is cited by Nelkin and Gilman as reporting that people are turning away from explanations that leave their lives in "the hands of outside forces" and diet and nutrition offer people the chance to control their own lives (1988:372). Curiously, at the same time, diabetes - which is cited as a disease where diet plays a major role in its development - is on the increase.

Not much has changed since the 1980s. Cancer continues to kill at the epidemic level and biomedical therapeutics have not been able to catch up with biomedical technologies. Biomedical technologies have taken the dominant role in medicine with the ability to diagnosis the disease in its early stages. With the advances in diagnoses, then, simpler therapeutics can be effective.

Revitalisation theory provides a useful model for understanding many of the

medicural changes that have occurred in the past and present. I have argued that the rise of alternative medicine movements can be understood within the parameters of revitalisation theory. Many diseases have been measured against medical science's proclamation that it has conquered infectious disease. Great advances have been made in medicine; however, the inability to treat diseases such as cancer, AIDS, and ebola have lead to the development of alternative medical movements.

The development of alternative medical movements is significant because it represents a change in Western mediculture. The alternative medicine movement has been exploited by various people and companies; however, their interest in the economics, or the profitability of alternative medicine is inherently related to public interest. The loss of faith in scientific medicine has opened a new niche in healthcare and in this niche attempts to produce a more satisfactory medicultural life are being made.

Revitalisation theory has been applied to the epidemic of AIDS (Africa). Epidemic disease has been understood as a disaster that not only affects a society's demographics, but also as a phenomenon that can cause cultural change. Healthcare strategies must take into consideration the various stages of revitalisation if they are to be effective during epidemics. If we want to reduce infection by addressing the modes of transmission, our strategies must reconcile the biomedical explanatory model with those that are in current use. Once the society has progress beyond the Period of Increased Stress, though, we need to be aware of the changes we might cause through our attempt to revitalise the mediculture of the society in question.

A contribution to disaster relief strategies can also be made here. In particular,

efforts to organise and maintain the steady state can be made by addressing cultural issues, such as the defunct explanatory system. Perhaps the best way to restore order is by merging explanatory models in a way that *empowers* the society in question and its culture. This is where we must be creative and have a good ethnographic knowledge of the society in question. For example, Willms et al. argue that “the outside reader might be struck by the acceptance and inclusion of traditional healers’ ancestral spirits in the training process” (1995:ii). This, however, is an essential element in the merging of cultural models. Ethnographic knowledge has allowed the researchers involved to “know what is culturally appropriate, and therefore acceptable and understandable, and to craft . . . [their] message in a suitable idiom” (1995:TSB-3). As a result of this approach, new knowledge has been infused into the *Matare* community. It has allowed them to understand the disease in a new, empowering way and to reduce the incidence of HIV/AIDS infection.

The model of revitalisation explains that with the onset of an epidemic of disease, where there are high rates of mortality and contemporary mediculture is unavailing against the disease, the society can lose faith in its explanatory system. Any society that is placed under epidemiological stress should not only receive epidemiological attention in an attempt to relieve the infected and contain the epidemic, but there must be an effort to address the epidemic through the current cultural system in an attempt to maintain the steady state.

## CHAPTER NINE

### CONCLUSION

The problems with medical history are rooted deeply in the tradition and discipline of medicine. Although scholars have called for inquiry into the social and cultural aspects of medicine, they have failed to release their hold over medical history. As noted by Rosenberg, "fitful calls for a new history incorporating and integrating social, cultural, and economic aspects of life were voiced periodically but remained episodic and isolated" (1992:2).

In *A History of Medicine. Volume I: Primitive and Archaic Medicine*, Sigerist astutely observes that "medicine is not a natural science. . . . Methods of science are used all the time in combatting disease, but medicine itself belongs much more to the realm of the social science because the goal is social" (1951:14). This, however, draws our attention to a problem with the perception of medicine. To be sure, Sigerist was criticised for placing medicine in the social sciences. This criticism is a fault of Western culture, however. Similarly, the arts, humanities, and social *sciences* quite often try to appear "scientific" - as if it will somehow contribute to their value.

In this thesis I have focussed upon a number of different themes; for example: the history of medicine, ethnomedicine, the function of explanatory systems, and culture change. I have criticised the historical approach and in many ways I have crossed into non-traditional anthropological subject matter, namely Western civilisation. "The goal of anthropological study [however] is to understand the whole of culture in all periods and ages" (Lowie 1934:384-5) and there is a defect in our current understanding of

medical history. As suggested by Pagel, "the work of historical appreciation, comparisons of past short-comings and present achievements, the distribution of prizes among the *dramatis personae* of Medical History, however legitimate and valuable in themselves, are . . . not the main tasks of the historians" (Pagel 1985:2).

The historical approach to the history of medicine has, nevertheless, continued to focus on the individual. "Only a few realise, however, the usual construction of a line of progress, based upon the selection of material from the modern point of view, may endanger the presentation of the historical truth" (Pagel 1985:2; also Ackerknecht 1971:7-9). "Nothing could be more foolish in comparing ancient theories with ours than to call progressive what corresponds to our views, and primitive what is different" (Sigerist 1951:10). Following Pagel, Ackerknecht, and Sigerist's criticisms of medical history, then, I have seen value in attempting to apply anthropology to medical history as an ethnomedical endeavour. Consequently, Sigerist's objective of "[tying] the history of medicine to larger patterns of culture and cultural transformation" (Fee 1992:301) has been addressed.

As suggested by Brown and Timajchy in the "cultural sense, a medical system is an organized set of ideas referring to a particular healing tradition. . . . When viewed as a cultural system, biomedicine becomes one ethnomedicine among many others" (1996:318-9). When we understand that biomedicine is an explanatory system that is rooted in culture, it begins to have affinity with other cultural systems; for example, religion. The significance of this connection is that models which have been used to understand religious change can be applied to other explanatory systems. To this end,

revitalisation theory (Wallace 1956, 1966) has been used to explain the changes that have occurred in Western medical history.

There is no question that Western medicine does have a history; however, we cannot assume that its "history" can be understood as evolution. Anthropology has allowed one to see the changes that have occurred in medical systems as separate events rather than as a progressive evolution toward medical enlightenment (following Ackerknecht 1971). Each of these events can be understood as a response to an external crisis, which in the end caused an internal cultural crisis. When a belief system fails to provide an explanation for a disastrous phenomenon, the society in question will experience economic, social, psychological, and/or cultural deprivation. If this deprivation persists, the society in question will exceed the tolerable limits of stress, and anomie and disillusionment will set in. The attempt to restore a steady state in the society through a new system of belief is referred to as medicultural revitalisation.

The application of revitalisation theory goes beyond the ethnohistorical analysis of ethnomedicine. There has been a shift in the popular perception of biomedicine and this is evidenced in the current trend toward alternative approaches to healing in North America. If biomedicine maintained the same hegemonic status it had for mid twentieth-century culture, we would continue to acculturate rather than explore other possibilities for healing. Accordingly, revitalisation theory explains that this shift toward the utilisation of a number of different medicines is the result of increasing stress regarding the efficacy of biomedicine. It is not the objective of an anthropologist to question the truth of any given explanatory system, likewise, the efficacy of biomedicine in question

in this thesis. However, the observation that North Americans are questioning the efficacy of biomedicine is required. In this sense, the model of revitalisation has allowed us to understand the changes that are occurring in our own culture.

Through the application of revitalisation theory, a contribution to ethnomedicine and the history of medicine has been made. In addition, this approach to understanding the effects of epidemic disease upon the culture of any given society has allowed a critique of twentieth and twenty-first century culture in North America. The utility of this theory does not stop here, however. Current situations of epidemic disease in other countries can be addressed through revitalisation theory. For example, by drawing upon the forecasted stages we can understand what must occur if we want to improve health cross-culturally. We cannot approach these societies offering the explanatory models that are in use in our society despite the apparent effectiveness of the particular "medicine."

As suggested by Willms et al. (1995), explanatory models that contradict other explanatory systems are dis-empowering. Moreover, as revitalisation theory explains, any attempt to introduce a new explanatory model will be met with resistance if the society has not progressed outside of the tolerable limits of stress. In other words, so long as a society believes that its cultural paradigm effectively explains phenomena, then it will not be open to new explanatory models. With this in mind, it can be suggested that any attempt to improve health cross-culturally must work within the cultural paradigm in question. For example, an educational program to reduce the incidence of HIV/AIDS must draw upon concepts that are accepted within the culture rather than

introduce scientific ideas which may seem absurd within that system of belief (for a discussion see Wellin's "Water Boiling in a Peruvian Town"). Approaches that contradict these cultural paradigms, then, must be merged into - following Willms et al. (1995) - a mutually agreeable explanatory model that incorporates Western knowledge into indigenous systems of belief. This, however, requires an ethnographic understanding of the society in question (for a discussion see Popowich (1999) "Medical Anthropology and Anthropological Contributions to Improving Health Cross-Culturally").

Finally, in addition to the recognition that the success of a program towards improving health cross-culturally is dependent upon ethnographic research and the merging of cultural paradigms, we must also consider that the society in question may have progressed beyond the tolerable limits of stress. Theoretically, in this situation new knowledge can be introduced into the society with relative ease; however, it will be the objective of the researchers involved to assess the impact of intervention during this stage with regard to its ethics.



## ENDNOTES

1. Based upon when Asclepius became a god and when Apollo would no longer be evoked as a god, Clendening ([1942] 1960:13) suggests that the *Hippocratic Oath* was written no earlier than the fifth century BC and no later than the first century AD. More recent research has narrowed the time frame to the fifth and third century BC (Porter 1997:62) while others are convinced that it was written during Hippocrates' lifetime (see Jouanna 1999 pp.49 and 68). Based upon the evidence, it is likely that the oath was an early treatise.

Firstly, according to the model set forth in this thesis, a function of a revitalisation movement is the establishment of a code in an effort to gain converts. According to Jouanna, the Oath was taken by Hippocratic students: disciples outside of the family of Asclepiads (1999 pp.49 and 68). Secondly, as noted by Porter, the reference in the oath to avoiding a "destructive pessary" suggests a belief in the transmigration of the soul and thus implies a Pythagorean influence. Without considering other examples which would have been contemporary with Hippocrates, Ackerknecht ([1955] 1982) has suggested that this is a neo-Pythagorean influence and places the oath outside of Hippocrates' lifetime. There is no justification, however, for assuming a neo-Pythagorean influence while it is evident that Hippocrates' contemporaries, such as Plato and Socrates (Jouanna 1999) were also influenced by Pythagoras. Finally, if Hippocrates is praised for his approach to medicine, his careful documentation of diagnoses and prognoses and the patients he treated, it is reasonable to assume that he also was meticulous about methodology and conveying that information

to those whom he taught outside of the family. Considering what we know about Hippocrates it does not seem plausible that an Hippocratic/Asclepiad medical school could exist without a philosophy or code, or as Jouanna suggests, a “contract” which defined the role of the Hippocratic physician (1999:47).

2. To what extent did the medical beliefs offered by Hippocrates develop and persist within Greek society? Did this new “medicine” exist only among the elites, or did they filter down into other socioeconomic groups such as the middle-class, the poor, and the slave?

In his book *Hippocrates* (1999), Jouanna investigates these questions by examining the Hippocrates’ *Epidemics*, *Precepts*, and Plato’s *The Laws*. As noted, information regarding the life and theories of Hippocrates has been obtained through the Socratic dialogues. By examining Socrates’ knowledge of the physician and given Socrates’ contribution to philosophy, it seems that knowledge was not only “fashionable” for the elites; to be sure, Socrates was a pleb.

In the *Epidemics* the profession of each person treated has been recorded as part of the case study; Jouanna (1999:117) enumerates the following positions: skipper of a large ship, cobbler, carpenter, potter, artisan trades, young vineyard worker, stonecutter, miner, cook, shopkeeper, vinedresser, gardner, groom, boxer, wrestling master, leather worker, and school master. “It was on the basis of such examples, drawn from the *Epidemics*, that Galen gave the prospective physician the following advice: You will treat the poor at Crannon, at Thaso and in other cities” (Jouanna 1999:117).

In the Hippocratic *Precepts*, the author “counsels the physician to display philanthropy in treating foreigners and the poor” (Jouanna 1999:124). Based upon such evidence Jouanna argues that not only did the Hippocratic physicians treat wealthy clients, but they also treated “a humbler clientele, adopting a sliding scale of fees” (1999:120). The Hippocratic clientele, then, included “free-persons” such as Greek elites and professionals, middle-class trades people, women, the poor, and slaves of free-persons (see Jouanna 1999:116-124). Consequently, it may be concluded that the medical beliefs of Hippocrates were not confined to a few groups within Greece’s upper echelon, but rather extended across all socioeconomic levels. This does not imply that Hippocrates’ medical beliefs were accepted by *all* people though.

3. Although I have addressed why cultural revitalisation does not occur during every disease episode, a question has been brought to my attention regarding the pandemic of influenza during the twentieth century. I would like to briefly consider the effects of influenza in North America.

In “The Impact of Epidemic, War, Prohibition and Media on Suicide: United States, 1910-1920” (1992), Ira M. Wasserman examines a drastic increase in suicide rates and concludes that “World War I did not influence suicide; the Great Influenza Epidemic caused it to increase” (1992:240). More specifically, drawing upon Durkheim’s perspectives on anomie and suicide, it is argued that as a result of the Great Influenza Epidemic, social integration and interaction decreased. This decrease in social integration and interaction led to an increase in the national suicide rate (Wasserman

1992:241). The increase in national suicide rates in the United States is important because it illustrates that the influenza epidemic did have an effect upon society, culturally.

According to Porter the epidemic of influenza was "the greatest single demographic shock mankind has ever experienced, the most deadly pestilence since the Black Death. . . . [However], the influenza disappeared as quickly and mysteriously as it had arrived" (1997:484). In other words, the epidemic of influenza was short in *duration*. It shocked people, but it did not continue to strike people down and defy explanation. In response to the question which asks why influenza failed to stimulate cultural revitalisation: the epidemic in question caused anomie within society. Cultural revitalisation, however, was circumvented through politics and public health measures. To be sure, "the decade between 1910 and 1920 marked the first great period in the formulation of American social policy and of legislation in relation to health" (Rosen 1993:440).

Finally, and perhaps most importantly, I do not think that the effects of World War I can be underestimated when considering the impact of influenza upon culture. During other periods the epidemics caused a severe rise in mortality. Unprecedented rates of mortality ultimately caused the people to question their beliefs. In contrast, World War I was just coming to an end and influenza only contributed to the already high mortality rates. Consequently, it is possible that the impact of the epidemic of influenza's mortality upon culture was not significant given the morality that World War I caused.

4. Roman paganism is a polytheistic system of belief which lacks the creeds and doctrines common to Christianity, Judaism, and Moslemism. According to the literature, Roman paganism is better characterised and understood in terms of a cult rather than a religion; consequently it is understood that the gods of ancient Rome were defined and worshipped; however, paganism existed in many forms throughout the state.

5. It is important not to conclude that physical therapeutics were absent from Christian mediculture. Although Christianity “had its own therapeutic methods - namely prayer, penitence, and the assistance of saints” (Ackerknecht [1955] 1982:81; also see Rosen [1958] 1993:29), Christianity nevertheless “exhibits a medley of attitudes towards healing” (Porter 1997:86). For example, contrasting the divine healing exhibited in the Acts of the Apostles, Luke disinfects a wound with wine in the parable of the good Samaritan (Porter 1997:86). (If this is any sign of the importance placed upon physical medicine, let us not forget that less is known of Luke - “the beloved physician” - than any other New Testament writer). In James 5:14, it is noted that the prayer for healing is to be accompanied by an anointing with oil. And finally, in Mark 7:33 it is noted that Jesus applied spittle to the tongue of the mute. This seems to suggest that physical therapeutics were used in conjunction with prayer and is therefore comparable to the characteristics Ackerknecht has made in his essay “Primitive Medicine.” Nevertheless, although physical therapeutic may have accompanied prayer, in Christian culture “every cure . . . was basically regarded as a miracle” (Ackerknecht [1955] 1982:81) rather than a result of physical therapeutics.

6. In the same way that new religious movements often are not new, nor is alternative medicine. The visibility of alternative medicine (formerly a cognitive minority; cf. Berger 1969:7) in Western culture is nevertheless significant because it illustrates the acceptability of this “new approach” as a therapeutic option without the application of the “quackery” label. The continued acceptance and incorporation of homeopathic forms of medicine into Western mediculture represents cultural change because it is altering our shared system of belief.

7. Quackwatch’s electronic publishing list includes: “A Few Thoughts on Ayurvedic Mumbo-Jumbo,” “Chinese Medicine,” and “Don’t Let Chiropractors Fool You,” and Dr. Stephen Barrett has recently opened the site [www.homeowatch.org/](http://www.homeowatch.org/).

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