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Au cours des seizième et dix-septième siècles, un grand nombre d'individus ont été accusés, jugés, torturés et souvent mis à mort pour crime de sorcellerie. Les savants expliquent qu'une telle vogue de la sorcellerie a pu être perçue comme la conséquence du fait que les milieux professionnels, y compris la médecine, étaient incapables de donner à ce phénomène une explication "naturelle." Ce qui toutefois n'exclut pas le fait qu'on ait réussi à exprimer un point de vue différent sur des idées courantes à l'égard de la sorcellerie. En se basant sur la science médicale de son temps, le médecin Hollandais Johann Weyer (Wier) a proposé une explication logique des aveux faits volontairement par les personnes suspectées de sorcellerie. Le présent article analyse les facteurs complexes démontrant que l'acceptation de l'explication "naturelle" de Weyer posait un problème. En somme, disons que Weyer ne réussit pas à rallier les autorités à son point de vue, parce qu'il proposait une idée nouvelle à l'intérieur d'un vieux système de contraintes. Ainsi le philosophe français Jean Bodin a-t-il pu manipuler à son gré les diverses ambiguïtés et contradictions issues de la tradition médicale de Galen et. de la sorte, tirer des arguments contre ceux de Weyer.

During the sixteenth and seventeenth centuries, a great number of individuals were accused, tried, and in many cases, killed as witches. Scholars agree that the witch craze was possible because the learned professions, including medicine, could not provide a convincing "natural" explanation for witchcraft phenomena. However, dissent from the orthodox view of witchcraft did exist. The Dutch physician Johann Weyer (Wier) provided a logical explanation, based on accepted medical beliefs of the period, for the voluntary confessions of suspected witches. This paper examines a number of complex factors which made the acceptance of Weyer's "natural" explanation problematic. Stated simply, Weyer failed to convince others to accept his explanation because he presented a new idea within the constraints of an old system. This allowed the French philosopher Jean Bodin to manipulate various ambiguities and inconsistencies in Galenic medical system, and to use these inconsistencies to counteract Weyer's argument.

INTRODUCTION

In 1486, two Dominican Inquisitors, Heinrich Kramer and Jacob Sprenger, compiled and synthesized various witch beliefs with existing notions of heresy. Their efforts resulted in the production of the Malleus Malificarum (Kramer and Sprenger 1970), an authoritative volume that not only identified witchcraft as a form of heresy, but also explicitly outlined how religious and secular authorities should handle the problem. Although sporadic attempts were made to control witchcraft prior to its publication, Trevor-Roper (1969:24-25) and Ben-Yehuda (1980:8-11) suggest that the Malleus and the Summis Desiderates Affectibus (1484), a Bull issued by Pope Innocent VIII authorizing Kramer and Sprenger to extirpate witchcraft, provided the basis for a more general and intensified attempt to eradicate witchcraft during the sixteenth and seventeenth centuries.

Approaching the problem from a different perspective, but nevertheless arriving at a similar conclusion, Monter 1969b:55-56) argues that the intellectual foundations for the great persecutions of 1580-1650 were firmly established because the Malleus received a general degree of acceptance "among the educated classes of Europe" during that period. Monter argues that none of the learned professions, including medicine, could provide a convincing "natural" explanation for witchcraft phenomena (see also Estes 1983). However, this does not mean that all intellectuals accepted the orthodox point of view. A number of prominent individuals, including the Dutch physician Johann Weyer (see Anglo 1976; Baxter 1977b; Monter 1969b; Mora 1963; Thorndike 1941; Withington 1955; Zilboorg 1967, 1969), Salazar de Frias of Spain (see Henningsen 1980), Andres de Laguna of Spain (see Friedenwald 1939), Reginald Scot of England (see Anglo 1976, 1977), Cornelius Loos of Trier in Germany (see Burr 1943), and others (see Easlea 1980; Midelfort 1972; Robbins 1977), not only disagreed with the official view of witches and witchcraft, but also engaged in active and vocal debate with other intellectuals regarding the nature and reality of witchcraft.

Early attempts to explain what was commonly believed to be supernatural phenomena in terms of natural causation can be found in the works of scholars such as Nicolas Oresme (?-1382) of France and Pietro Pompanazzi (1462-1525) of Mantua in Italy (see Anglo 1976, 1977; Thorndike 1934:398-510). For example, Pomponazzi (1948:372) states that: ". . . those possessed by demons . . . are suffering either from black bile or insanity, or from a trance or are near to death . . . whence it is that they become almost lifeless and irrational."

Within the medical field, the first major literary attack on the doctrine of witchcraft was launched by Johann Weyer (ca.

1516-1588), a Dutchman who became the personal physician of Duke William of Berg, Jülich, and Cleves in Germany. Weyer attempted to provide natural explanations for both the misfortune people attributed to witchcraft and confessions of suspected witches. He suggested that the voluntary confessions of suspected witches should not be accepted as a sign of actual guilt, but rather as a sign that the individual was suffering from delusions. Historians such as Monter (1969b), Nemec (1974), and Zilboorg (1967, 1969) agree that Weyer's ideas did not gain popular support among the intellectual classes of Europe. In fact, Weyer's ideas were severely criticized by the French philosopher Jean Bodin and other contemporary writers.

This paper will attempt to determine why the medical profession, and Weyer in particular, failed to provide a convincing natural explanation for witchcraft. To accomplish this goal, I will (1) examine the medical beliefs and practices of the period; (2) examine the criticism directed against Weyer's explanation, as well as the explanation itself; and (3) attempt to elucidate some of the factors that influenced the decision of members of the intellectual classes to reject Weyer's ideas.

I maintain that the reason courageous intellectuals such as Weyer had so little impact during the two centuries of the witch-craze was not, as generally assumed, because they were silenced. Rather, Weyer's problem was that he presented a new idea within the constraints of an old system. Medical beliefs of the period, as well as the European world view in general, were characterized by the notion of complimentarity between supernatural and natural explanations of disease causation. Weyer did not challenge this complimentarity, but merely attempted to work around it to achieve his goals. By so doing, he became easy prey for a clever ideologue such as Jean Bodin. Bodin was able to manipulate the various inconsistencies and ambiguities inherent in the Galenic medical system to give the impression that he had refuted Weyer's ideas. This, in turn, gave religious and secular authories an additional basis for rejecting Weyer's "natural" explanation.

BACKGROUND: A BRIEF REVIEW OF WITCHCRAFT LITERATURE

Although the Malleus Malificarum may have provided the basis for the witchcraft persecutions of 1580-1650, the importance of this document should not be overemphasized (see Cohn 1976:225; Hoak 1983; Russell 1976). Recent studies indicate that the witchcraft persecutions occurred and were maintained as a result of a number of very diverse and complex factors. These factors included:

(1) The historical development of the witch fantasy. For example, Norman Cohn (1976) traces the development of the negative,

antisocial image of the witch in Europe, and discusses how these beliefs became a part of the witch trials. Kieckhefer (1976) contributes to our understanding of these developments by distinguishing between folk and intellectual views of witchcraft during the fourteenth and fifteenth centuries.

- (2) The status of women. Any study of European and British witchcraft must come to grips with the fact that women, much more often than men, were treated as witches. The following scholars explicitly address this issue: Anderson and Gordon (1978); Ben-Yehuda (1980); Ehrenreich and English (1972); Larner (1981); and Monter (1977).
- (3) The legal system. Currie, for example, examined the differences between English and continental European legal systems, and how these systems dealt with witchcraft. He concluded that: "in both cases, witchcraft as a deviant behavior system took its character directly from the nature of the respective systems of legal control" (1968:28).
- (4) The cosmology of the period. According to Easlea (1980), and Thomas (1971), the decline of magic and witchcraft coincided with the shift from the Aristotelian-Thomistic cosmology to that of the "mechanical" philosophy. The Aristotelian-Thomistic cosmology helped maintain magic and witchcraft beliefs because it was both "diabolicentric and geocentric" (see Easlea 1980:43).
- (5) The role of social and psychological stress. Certain scholars (e.g., Anderson 1970; Ben-Yehuda 1980; Connor 1975; Schoeneman 1975) focus their attention on the interrelationships between witchcraft persecutions and the stressful social and cultural changes that took place in the Late Medieval/Early Renaissance and Post Reformation periods. They suggest that the witch-craze occurred in response to stress experienced at the individual and/or social level.
- (6) Witches as scapegoats. Thomas Szasz is a leading proponent of this point of view. He maintains that: "the persecution of witches . . . is the expression of social intolerance and a search for scapegoats" (1970:112). This argument can also be found in the works of writers who focus on the "social status of women" and/or the "role of stress" (see (2) and (5) above).
- (7) Legitimation of political authority. A number of scholars(e.g., Clark 1977; Easlea 1980; Larner 1981) stress that witchcraft persecutions served to reinforce the political philosophy of the ruling monarch or ruling class. This was particularly true in border areas where legitimacy was often at peril.

Approaching the problem of political authority from a different perspective, Marvin Harris (1974) suggests that the witch-craze was created and sustained by the governing classes to suppress peasant revolutionary movements. Witchcraft beliefs served to redirect the frustrations and tensions of peasants away from the real economic and social problems of the period. Willa Appel (1977) arrives at a similar conclusion for modern evil eye beliefs in southern Italy.

- (8) The role of "suggestion." During the sixteenth and seventeenth centuries, certain individuals came to believe and sometimes to confess that they were witches. Ginzberg (1966), Henningsen (1980:390), and Spanos (1978:28-31) believe that this process occurred as a result of changes in the self-perception of individuals due to "suggestion." A sixteenth-century English writer named Reginald Scot (1964:29-31) arrived at a similar conclusion concerning the voluntary confessions of certain suspected witches in England.
- (9) Functional and dysfunctional aspects of witchcraft. Many scholars continue to find Evans-Pritchard's Witchcraft, Oracles, and Magic Among the Azande (1937) valuable for the analysis of beliefs and behavior associated with the supernatural. Evans-Pritchard's model primarily consists of three interrelated components. He examines how Azande beliefs serve as: (a) a system of explanation; (b) a means of establishing a course of action; and (c) social control mechanisms. Both Alan Macfarlane (1970) and Keith Thomas (1970; 1971) make explicit use of one or more aspects of Evans-Pritchard's model to discuss witchcraft phenomena in England.

According to Midelfort (1972:194-196), small scale witch trials and accusations probably served a positive social function. However, Middlefort also maintains that the larger trials characteristic of continental Europe were "dysfunctional," and that the associated panics served to raise social tensions rather than to relieve them.

(10) Nutrition and the use of hallucinogenic plants. Caporael (1976) and Matossian (1982) suggest that ergotism, a disease caused by the ingestion of contaminated grain, was responsible for the bizarre witch craze behavior which was experienced by the residents of Salem, Massachusetts in 1692. For a critique of this point of view, see Spanos and Gottlieb (1976), and Spanos (1983).

Recently, a new nutrition-related hypothesis was proposed by Anne Zeller (1984). Zeller suggests that the symptoms experienced by certain individuals during the Salem, Massachusetts witch scare may have occurred as a result of hypocalcemia. This argument is similar to that advanced by others to explain incidents of arctic hysteria and involuntary spirit possession (see Foulks 1972; Kehoe and Giletti 1981; Wallace 1961).

With respect to Europe, Harner (1973) notes that belladonna and other drugs which were reportedly used by suspected witches contain atrophine, a substance which can produce hallucinogenic experiences. Certain individuals may have believed themselves to be witches because they actually experienced some of the things attributed to witches while under the influence of these drugs. However, this approach is limited, and accounts for only a small portion of witchcraft cases.

By now it should be apparent that in order to understand European and British witchcraft fully, it is necessary to examine a variety of complex issues. Though it is not possible to address many of these issues in this paper explicitly, it is hoped that a discussion of the Weyer-Bodin controversy will supplement our understanding of the phenomenon.

GALENISM: A MEDICAL PHILOSOPHY

The literary works of Galen (ca. 130-200 A.D.), a Greek physician and philosopher from Perganum in Asia Minor, profoundly effected medical thinking throughout Europe, the Middle East, and North Africa. Galen's ideas were not always new; in fact, they were often based on earlier works such as the Hippocratic writings of the forth and fifth centuries B.C. (Sigerist 1933; Temkin 1973). However, Galen, was able to synthesize previous medical knowledge and contribute his own experiments, observations, and philosophical ideas. Galen's ability to compile a thorough, systematized body of knowledge enabled him to become a prominent medical authority both during and after his own lifetime.

Throughout his work, Galen consistently suggests that health depends on a condition of equilibrium. Illness occurs when internal equilibrium is disrupted. Of primary importance in this medical philosophy is the concept of the four humors and qualities attributed to these humors (see Galen 1928:201-203). The four humors are: (a) blood (hot and moist); (b) phlegm (cold and moist); (c) yellow bile (hot and dry); and (d) black bile (cold and dry). These humors are produced in the liver during digestion. Once produced, they travel as a mixture within the body, nourishing

parts and organs of similar constitution. For example, black bile nourishes the spleen, a cold and dry organ capable of transforming and excreting excess black bile (Galen 1928:205-211; see also Babb 1951:21-22 and Siegel 1968:258).

Since the four humors perform necessary functions, their production is essential for survival. Production of either an excessive or insufficient amount of one or more humors disrupts the internal equilibrium and causes physical and/or mental illness. This is particularly true of excessive black bile, a highly toxic humor (Galen 1928:205; see also Siegel 1968:220-221).

Humoral equilibrium may be disrupted by a variety of factors ranging from inappropriate diet to excessive study (see Avicenna 1930; Galen 1928; Hippocrates 1939a, 1939b).1 In order to restore natural equilibrium, it is necessary to neutralize the offending humor by stimulating the opposite reaction. For example, Galen states that:

. . . we must cool the overheated stomach and warm the chilled one; so also we must moisten the one which has become dried up, and conversely; so too, in combinations of these conditions; if the stomach becomes at the same time warmer and drier than normally, the first principle of treatment is at once to chill and moisten it; and if it becomes colder and moister, it must be warmed and dried. . . (1928:199)

In addition, the individual could restore natural equilibrium by decreasing the amount of the offending humor in his or her system. This could be accomplished by either blood letting, purgation, or emetics.

Although certain Galenic and Hippocratic writings were translated into Latin, the separation of the Roman Empire into Latin West and Greek East effectively isolated the Western Empire from Greek classical ideas for centuries. Meanwhile, Galenism developed and became firmly established as a medical philosophy in the East. After the conquest of Alexandria by the Arabs in 642 A.D., the Galenic system was adopted and refined by Islamic medical scholars (Temkin 1973:59-72). Translation of the medical texts of Islamic scholars into Latin by Constantine of Africa (ca. 1010-1087) and others reintroduced Greek medical and philosophical ideas to the West during the late Middle Ages (Sigerist 1933:89-92; Singer and Underwood 1962:74-77). Later, western scholars made translations of the original Greek texts.

Greek and Islamic medical/philosophical texts, including the works of Avicenna, provided the literary basis for the rise of various medical schools and universities throughout Europe. In general, these schools promoted a scholastic form of Galenism by

emphasizing medical theory rather than clinical medicine. By the mid-sixteenth century, this scholastic approach had profoundly affected medical thought. According to Cipolla:

. . . faith in the "ancients" was blind and absolute . . . medical doctrine stood solidly on its traditional, time-honored, Galenic foundations, both unquestioned and untested, seemingly unaffected by the passing of time and ideas . . . (1976:108)

Although the major Greek and Islamic medical philosophers had become undisputed authorities in the minds of most medical professionals, Galenism began to experience a very gradual decline during the second half of the sixteenth century. This decline continued throughout the seventeenth century. Initial criticism of the Galenic system was provided by the Swiss physician, alchemist, and chemist, Paracelsus (1493-1541) and his followers. In The Archidoxes of Magic, a book attributed to Paracelsus but not published during his lifetime, Paracelsus states that:

Aristotle, Hippocrates, Avicenna, Gallen, and [others]... grounded all their ARTS upon their own Opinions onely. And if at any time they learned any thing from Nature, they destroyed it again with their own Phantasies, Dreams, or Inventions, before they came to the end thereof; so that by them and their Followers there is nothing perfect at all to be found. (1975:B2)

The basis for Paracelsus' critical attack was the fact that many of his chemical cures could not be adequately explained within the traditional Galenic system.

The results of anatomical and physiological studies conducted by Andreas Vesalius (1514-1564), William Harvey (1578-1657), Marcello Malpighi (1628-1694), and others also demonstrated that the Galenic system was based on incomplete or faulty information For example, Harvey's Sigerist 1933: Temkin 1973). circulation of the experimental demonstration of the contradicted many of Galen's suppositions. Galenists reacted to the new information by either rejecting it outright, or maintaining that it did not affect the primary principles of the system. But as the new evidence accumulated and was corroborated by others, Galenism rapidly declined. According to Lester King (1970), the Galenic medical philosophy became obsolete by the end of the seventeenth century.

THE MELANCHOLY WITCH

The reintroduction of Hippocratic and Galenic medical ideas

into Europe during the eleventh century provided physicians with a new, more sophisticated means of explaining and treating illness. However, this medical philosophy was not the only means by which illness could be explained. People could easily implicate supernatural causes such as punishment from God, possession by the devil(s), witchcraft, or sorcery as alternative explanations. Both systems of explanation are based on authoritative sources, and both have long historical traditions. This made it difficult for one system to totally replace the other.

In De Praestigiis Daemonum, first published in 1563, Johann Weyer (1967, 1969) directs a concerted attack against the doctrine of witchcraft. The following excerpt from the book clearly illustrates his intention:2

My object is chiefly of a theological nature: to set forth the artfulness of Satan according to Biblical authority and to demonstrate how one can overcome it. Next, my object is philosophical, in that I fight with natural reason against the deceptions which proceed from Satan and the mad imagination of the so-called witches. My object is also medical, in that I show that those illnesses the origin of which is attributed to witches come from natural causes. And finally, my object is legal, in that I speak of the punishment, in another than the accustomed way, of sorcerers and witches. (Weyer 1969:38-39)

Although Weyer presents a diversified attack, this paper will focus on his convictions concerning suspected witches. For a discussion of other aspects of Weyer's work, see Anglo (1976), Baxter (1977b), Walker (1958), and Zilboorg (1967, 1969).

Recognizing the fact that women accused of witchcraft confessed, often voluntarily, to various charges of performing or participating in unnatural acts, Weyer proceeds to explain how these confessions should be interpreted. First, he dismisses as invalid all confessions obtained by means of torture (see Zilboorg 1969:152-153). Second, and more important for this discussion, Weyer argues that voluntary confessions are based on false delusions experienced as a result of either a melancholic disposition, or the use of drugs such as "belladonna" (see Monter 1969b:61-62; Zilboorg 1969:142-145).3

The Melancholic Disposition

Within the Galenic medical system, the term melancholy has a variety of meanings. It can refer to the cold and dry humor known as black bile, or to a specific temperament. For example, an individual with a melancholic temperament has a natural tendency

to produce a slight excess of black bile. This tendency not only predisposes individuals to diseases caused by black bile, but also affects their personality and appearance. According to Galen, ". . . those governed by black bile are indolent, timid, ailing, and, with regard to body, swarthy and black-haired . . ." (see Klibansky et al. 1964:59). The term melancholy can also refer to a humoral disorder with psychopathological manifestations. From this point on, unless otherwise stated, the term <code>melancholy</code> will refer to this psychophysiological disease.

Galen identifies depression and anxiety as the primary psychopathological symptoms characteristic of melancholy. He also suggests that, in extreme cases, the symptoms are further complicated by hallucinatory delusions (see Jackson 1969:374-375; Siegel 1973:191-196). These effects may occur as a result of two interrelated factors:

- (1) A significant excess of black bile--i.e., production of much more black bile than the spleen can transform and absorb. Excess production of black bile is influenced by a variety of factors ranging from inappropriate diet to excessive study. These factors cause an individual's constitution to become cold and dry, and thereby stimulate the production of black bile.
- (2) Corruption of the humors. Production of extreme heat in the body can transform both black and yellow bile into a highly toxic substance commonly referred to as unnatural black bile (Galen 1928:211-213; see also Babb 1951:21-22; Siegel 1968:219).

In general, Galen's perception of melancholic symptoms is shared by sixteenth and early seventeenth century writers of medical treatises dealing with the subject. For example, Timothy Bright states that:

The perturbations of melancholy are for the most parte, sadde and fearefull, and such as rise of them: as distrust, doubt, dissidence, or dispaire. . . . that melancholick humour. . . . is settled in the spleane, and with his vapours anoyeth the harte and passing up to the brayne, counterfetteth terrible objectes to the fantasie, and . . . causeth . . . monstrous fictions (1586:102)

Almost forty years later, Robert Burton describes very similar symptoms in his Anatomy of Melancholy (1621):

- . . . fear and sorrow . . . according to Hippocrates' and Galen's aphorisms . . . are most assured signs, inseparable companions and characters of melancholy they are not always sad and fearful but usually so, and that without a cause (1965:134-135)
- . . . melancholics very evidently have many fantastic convictions; it would be hard to find two in all ages with the same delusion. . . (1965:146)

The sixteenth and early seventeenth century medical perception of melancholy differs from the original Galenic view in an important way. It links melancholy, at least in certain cases, with the activity of the devil(s). This notion is found in the works of Timothy Bright (1586:237-241), Robert Burton (1965:95-99), and others (see Babb 1951:49-54). Since melancholy impairs judgement, these writers agree that the devil is attracted to melancholic individuals. The devil attempts to manipulate the victim's humors and stimulate fantastic delusions in order to lead the individual to reject God, and thereby to suffer eternal damnation.

In De Praestigiis Daemonum, Johann Weyer's description and discussion of melancholic symptoms is consistent with the medical views of the period. The major innovation in his work is the fact that he attempts to explain the experiences related by suspected witches in terms of melancholic delusions. Weyer suggests that the devil manipulates the humors of melancholic women, thus creating a delusion that they are performing, or participating in, an unnatural act. For the victim, the experience is so vivid that she actually believes the acts did take place and, with a little prodding, is willing to confess her involvement. In reality, the melancholic woman is merely the victim of the devil's deception. Based on this logic, Weyer concludes that suspected witches should be treated by physicians rather than mistreated by judges and jailors.

REJECTION OF WEYER'S ARGUMENT

Weyer's (1967) attack against the orthodox view of witchcraft had three primary effects. First, the Roman Catholic Church officially placed "his name on the *Index* as an auctor primae classis, that is, one whose opinions are so dangerous that none of his works may be read by the faithful without special permission" (Withington 1955:220-221). Second, his fellow Protestants burned copies of the book. Third, Weyer's ideas stimulated a series of

literary counterattacks which challenged each aspect of the argument. However, Weyer himself escaped punishment due to the efforts of the powerful and tolerant Duke William of Berg, Jülich, and Cleves.

In contrast to popular opinion, Weyer's ideas gained a degree of acceptance among certain British and European intellectuals (Midelfort 1972; Robbins 1977). For example:

- (1) Cornelius Loos (1546-1595) of Trier, in Germany, advocated that "witchcraft was a delusion" and strongly objected to the use of torture. Unlike Weyer, he was not under the protection of a tolerant patron. Thus, Loos was imprisoned on two separate occasions and was about to be apprehended and possibly burned when he died (see Burr 1943; Robbins 1977).
- (2) In the Discoverie of Witchcraft (1584), Reginald Scot of England (see Scott 1964) also presents an attack on the doctrine of witchcraft. Scot accepts Weyer's contention that in certain cases, both suspected witches and those who claim to be suffering from witchcraft are in reality victims of melancholy. However, Scot (1964; see also Anglo 1976, 1977) takes the argument one step further by maintaining that demons have no power in human affairs. Both Weiger and Scot's ideas were later attacked by King James I of rigland (1597).
- (3) During their debate with John Darrel, a "Puritan Minister" from England, concerning the nature of spirit possession, Harsnett (1605), and Deacon and Walker (1601; see D.P. Walker 1981:68-73), all of whom were Anglican preachers from England, argued that the symptoms people attribute to possession often occurred as a result of melancholy. For example, Deacon and Walker stated that:
 - . . . some vnskilful *Physitions*, do so rashly ascribe this humorous disease to the operation of the diuell: and that the ignorant people do absurdly imagine the partie thus affected, to be vndoubtedly possessed of diuels. (1601:160)

In the end, Weyer's convictions were rejected on philosophical, religious, medical, and legal grounds by the majority of European intellectuals.

This paper will now focus on the factors which influenced members of the European intellectual class to reject the notion that suspected witches were, in reality, suffering from melancholy. The Weyer-Bodin Controversy

In 1580, Jean Bodin (1530-1596), a politically-minded French lawyer and social philosopher, published what was probably the most thorough refutation of Weyer's argument. 4 Bodin's publication was titled *Demonomanie des Sorciers* (1580, 1969) and does not refute the notion that melancholy may produce delusions. Instead, Bodin rejects Weyer's argument by claiming that women are not prone to melancholy due to their constitution. Thus, only an ignorant (or evil) physician would attribute this condition to women. In order to support this contention, Bodin makes use of the Galenic beliefs of the period. He argues that:

- (1) Production of the melancholic humor is influenced by excessive heat and dryness. Since men have a hot and dry constitution, they are susceptible to melancholy in hot and dry regions. Women, however, are naturally cold and moist; therefore their constitution is contrary to that of melancholy.
- (2) According to Hippocrates and Galen, women are healthier than men. A woman's menstrual flow preserves her from various diseases because it helps eliminate excess humors, including black bile. Thus, the menstrual flow helps prevent melancholy in women.
- (3) A melancholic temperament makes men "wise, serious, or contemplative"; these qualities are not compatible with women.
- (4) Witches abound in cold, northern regions such as Germany and the Alps. However, northern peoples are "... white, green-eyed, blond-haired and slender, reddish-faced, joyous and chatter-boxes. ..."; Their constitution is "... totally contrary to the melancholic humor" (Bodin 1969:50). For this reason, women accused of witchcraft in these regions should not be labeled as melancholics.

According to Sydney Anglo (1976), Bodin presents a very one-sided and selective discussion of the phenomenon. On this point, Anglo and I are in agreement. However, I would like to take this analysis one step further by contending that the Galenic medical philosophy itself was very ambiguous and inconsistent. For this reason, Bodin was able to manipulate various subtleties and inconsistencies in the system to refute Weyer's argument. Several brief examples of this point appear below.

First, within the Galenic medical tradition, heat and dryness influence the production of black bile (a cold and dry humor). However, this black bile is of the unnatural variety (see Galen 1928:211-213). On the other hand, production of natural black bile is influenced by cold and dry qualities. Following Hippocrates' lead

(1939a), Galen (1928:203; see also Siegel 1968:194) stressed that cold winds, and cold climates in general, stimulate the production of black bile in certain individuals. Since women were believed to be governed by a cold and moist constitution, they would be much more susceptible to melancholy in northern regions where the cold quality is naturally abundant.

Second, Bodin's description of the characteristics of northern peoples, and women in particular, differs sharply from the characteristics which Galen attributed to individuals with a melancholic temperament. In the Galenic tradition, a melancholic temperament referred to the natural constitution of certain individuals. In contrast, melancholy refers to a disease resulting from the production of a significant excess of black bile, which in extreme cases produces psychopathological effects. Although individuals with a melancholic temperament may be predisposed to melancholy, anyone, no matter what his or her natural constitution, is susceptible to the disease if the right conditions prevail.

Finally, Bodin correctly employs the Galenic medical beliefs when he suggests that the menstrual flow, like bloodletting, helps prevent melancholy by reducing the amount of black bile in the system. This argument ignores two essential facts. First, Hippocrates (1939a:77-79) states that the menstrual discharges of women exposed to cold winds "are not healthy, but are scanty and bad." Second, in his discussion of the relationship between melancholy and suspected witches, Weyer is referring to elderly women. Since the menstrual flow ceases after a woman's "change of life," it can no longer help purify her system. In 1584, Reginald Scot, a proponent of Weyer's ideas in England, explicitly linked melancholy to "menopause":

. . . why should an old witch be thought free from . . . fantasies who . . . upon the stopping of their monethlie melancholike flux or issue of bloud, in their age must needs increase therein, as (through their weakness both of bodie and braine) the aptest person to meete with such melancholike imaginations. . . . (1964:65-66)

This aspect of Bodin's argument is, therefore, irrelevant.5

Based on the preceding discussion, I suggest that both Weyer and Bodin applied logical arguments to the humoral beliefs of the period. The marked differences in their opinions is possible because they refer to different aspects of the humoral theory. In this sense, the Galenic medical philosophy is ambiguous enough to allow Bodin to manipulate the system, and thereby to give the impression that he has refuted Weyer's argument.

Since inconsistencies can be found in most, if not all, metaphysical systems, Bodin's ability to manipulate the system is not in itself surprising. As Edmund Leach demonstrates in his classic discussion of Kachin political behavior (1954:Chapter 9; see also Migliore 1983), myth (or tradition) is a language of argument, not a chorus of harmony. As disputants, Weyer and Bodin act like the Kachin because they use inconsistencies and ambiguities in a cultural tradition to support their arguments. Later, Weyer and Bodin themselves fell prey to direct or indirect attacks by others who manipulated the concept of melancholy. For example, when Weyer's patron, Duke William, became ill with melancholy, many people interpreted this as "a judgement upon him for his protection of Weyer and neglect of witch-burning" (Withington 1955:221). Duke William's successor made use of this interpretation to force Weyer to resign his post as court physician in 1578 (Withington 1955:221).

In contrast, Harsnett states that:

John Bodin . . . who being in his younger yeeres of a most piercing, quicke, speculative wit, which grew of a light, stirring, and discursive melancholia in him, fell . . . in the midle of his age to be a pure sot . . . For he holds that devils may transforme themselves into any shape of beasts, or similitude of men . . . and may have the act of generation with women . . . And not only that only, but that a witch . . . may transforme herselfe into the shape of beast . . . flie in the ayre . . . And he defends *lycanthropia*. (1605:132-133; see also Walker 1981:70)

Harsnett is using Bodin's own argument to discredit his views. More specifically, Harsnett acknowledges the value of Bodin's political and economic works by suggesting that the initial stages of melancholy made Bodin "wise, serious, and contemplative." However, since Bodin's Demonomaine des Sorciers (1580) was written during the later stages of the disease, this accounts for Bodin's belief in the reality of witchcraft.

What is surprising, then, is not the fact that people were able to manipulate the Galenic medical model, but rather the degree to which Bodin's argument was accepted, while Weyer's argument was generally discarded.

Reasons for the Rejection of Weyer's Argument

Reasons for the rejectin of Weyer's argument are obviously very complex issues that cannot be settled in a few pages. Various factors, including those mentioned in the above review of the witchcraft literature, must be taken into consideration in order to

understand the phenomenon. However, this paper will focus solely on a small number of factors that are directly relevant to the witchcraft/melancholy issue.

Rene Dubos (1976:319-343), a microbiologist, suggests that throughout the history of medicine, disease causation has been explained by either the "physiological" doctrine, the "ontological" doctrine, or both. The "physiological" doctrine stresses that an individual will remain healthy as long as his or her internal bodily processes function normally. Thus, disease is simply an abnormal state that occurs as a result of an internal disruption of the natural equilibrium (Dubos 1976:319). Of primary importance in this medical philosophy is the notion that disease causation is related directly to the individual's personality, bodily constitution, and mode of life. The humoral theory, as outlined in the Hippocratic and Galenic writings, is a primary example of a "physiological" doctrine.

In contrast, the "ontological" doctrine stresses that disease occurs as a result of damage caused by an external agent that either acts upon, or enters into, the human body. Mary Douglas's discussion of witchcraft provides an excellent example of the "ontological" doctrine. Douglas maintains that the dominant symbols found in witchcraft beliefs consistently ". . . build on the theme of vulnerable internal goodness attacked by external power. . . " (Douglas 1970:xxvi). Witches are malevolent external agents capable of injuring unsuspecting others. Although they may be physical members of the society, witches are the direct embodiment of everything despised by the society (Douglas 1973:138-140).

This negative image of the witch is consistent with Norman Cohn's discussion of the European stereotype of the witch (1976:99-102). People regarded witches as normal members of the society who, by making a pact with the devil (a highly malevolent, external agent), became associated with a secret society that engaged in cannibalism, exotic orgies, and other diabolical rites. By participating in these activities, the witch effectively rejects the values of larger society. In addition, since both the devil and the witch are capable of causing misfortune by occult means, the witch becomes a potential source of suffering for members of the larger society.

Throughout the fifteenth to seventeenth centuries, both "physiological" and "ontological" belief systems were prevalent in Europe. In general, physicians based their medical decisions on the humoral theory. Occasionally, humoral principles failed to provide an adequate explanation of the nature of certain diseases. In these cases, the physician could move from the "physiological" to the "ontological" belief system to provide an acceptable explanation. An example of this movement from one system to the other can be

found in the literary works of the Italian physician Antonio Benivieni (1443-1502). Benivieni describes an ailment that he initially attempted to treat by means of the humoral theory. His treatment failed and the symptoms became more severe and very difficult to explain:

. . . she grew more frenzied and, glaring round with wild eyes, was at last violently sick and vomited up long bent nails and brass pins, together with wax and hair mixed in a ball. . . . I saw her go through exactly the same procedure many times. . . (1954:35-37)

At this point, Benivieni reinterprets the nature of the ailment, and suggests that the woman is possessed by an evil spirit.

The following excerpt from The Triall of Witch-Craft by the English physician, John Cotta, indicates that well over one hundred years later, it was still fashionable for physicians to work within both physiological and ontological explanatory systems:

. . . when naturall remedies or meanes according unto Art and due discretion applyed . . . either lose their manifest inevitable nature, use, and operation, or else produce effects and consequences, against or above their nature. . . . doth certainly prove an infallibilitie of a superiour nature, which assuredly therefore must needs be either Divine or Diabolicall. (1616:70)

During this time period, the "physiological" and "ontological" doctrines were superimposed over one another and served as complimentary rather than conflicting systems of explanation. Johann Weyer does not challenge this complimentarity, but instead manipulates the grey area between the two systems to draw attention away from suspected witches and cast blame directly on the devil(s). This innovation attacks the specifics of the belief system(s), but leaves the main tenets intact. More specifically, Weyer does not challenge the notion that demons exist, nor does he challenge the notion that they are capable of affecting and/or interacting with human beings. As long as this ideological basis for belief in witchcraft remained intact, it was unlikely that members of the intellectual class could accept Johann Weyer's convictions (see Anglo 1976; Easlea 1980; Thomas 1971).

Throughout De Praestigii Daemonum, Johann Weyer (1967, 1969) attacks the "learned" conception of the witch. He insists that suspected witches do not: (1) make voluntary pacts with the devil; (2) have sexual intercourse with demons; (3) injure their neighbors

by occult means, etc. In Weyer's view, suspected witches are victims of a melancholic disease that is further aggravated by the activity of the devil. More specifically, the devil is capable of manipulating the imagination of melancholic old women.

The image of the witch that Weyer creates not only differs significantly from the view held by contemporary religious and secular authorities, but also generates certain implications. As victims of a psychopathological disease, suspected witches should not be held responsible for what they say or do. Therefore, they would not fall within the jurisdiction of lawyers, judges, and inquisitors. Melancholic individuals should be treated by competent physicians capable of easing their symptoms.

Weyer's conception of the witch also has implications for the "self-image" of both secular and religious authorities (i.e., ". . . that organization of qualities that the individual attributes to himself. . . ." (Kinch 1972:246; see also Blumer 1969). For these officials, the persecution of witches was not only justifiable, but also a duty. Various authoritative sources, ranging from the Bible to the Malleus, stress this point. For example, in his Bull to the Lombards in 1501, Pope Alexander VI explicitly states that:

. . . we send to you, commit to you, and order you and your successors . . . that you may seek out diligently those people of both sexes . . . and secure and punish them through the medium of justice. . . . (see Kors and Peters 1972:190-191)

Thus, the persecution and torture of suspected witches did not adversely affect the "self-image" of various officials.

I suggest that Weyer's argument not only promoted a new concept of the witch, but also attacked the self-image of religious and secular officials. Acceptance of Weyer's argument would have transformed the positive self-image of these officials into a negative self-image. Since religious and secular officials would no longer have had a basis for justifying their actions, they would have had to reinterpret their previous actions, and to attempt to handle the psychic stress of knowing that they had tried and punished innocent people. For example, John Darrel attacks certain British writers specifically on these grounds. He states that:

They doe not indeede deliver this in plaine tearmes, least happely they should thereby irritate the reverend Judges of the land, by making them guilty of shedding much innocent blood.7 (1602 *In* Walker 1981:71)

From the point of view of these officials, a negative "self-image" was simply not acceptable. I contend that this factor contributed to

the rejection of Weyer's argument. More specifically, the existence of alternative explanations allowed officials the luxury of choice. That is, they could choose the alternative that did the least damage to their self-image.

As mentioned previously, Jean Bodin (1580; 1969) argued that women were not melancholic. Galen did not share this view, as the following excerpt from his *On Prognosis* clearly illustrates:

I was called in to see a woman who was stated to be sleepless at night and to lie tossing about. . . . Finding . . . no fever, I made a detailed inquiry into everything that had happened to her. . . . After leaving I came to the conclusion that she was suffering from one of two things: either from a melancholy dependent on black bile, or else trouble about something she was unwilling to confess. . . . After I . . . diagnosed that there was no bodily trouble, and that the woman was suffering from some mental uneasiness. . . . (1972:213)

Although this particular case did not warrant a diagnosis of melancholy, it demonstrates that Galen did not consider this ailment to be solely a "male" disease.

During the sixteenth and seventeenth centuries, the term melancholy had a variety of meanings. Within the Galenic medical tradition, the term could refer to a humor, a temperament, or a psychopathological disease. In addition to this Galenic view, there existed a separate philosophical discussion of melancholy. Aristotle, in his discussion of Problem XXX, Number I (1957; see also Klibansky et al. 1964:18-29) explicitly suggests that all eminent individuals are melancholic. Out of this tradition developed the notion that genius and melancholy are related. Later, Islamic scholars linked this notion to astrological beliefs, and melancholy became associated with the planet Saturn (Klibansky et al. 1964:127; Wittkower and Wittkower 1963:102-103).

Since the Aristotelian description of melancholy was very flattering, the malady became fashionable among painters, poets, and scholars in general throughout Europe and England (Babb 1951; Wittkower and Wittkower 1963). Even though painters and poets were predominantly male, individuals consistently attributed their mental state to melancholy. Saturn, which had become synonymous with melancholy, was also classified as masculine (Klibansky et al. 1964:131). At the same time, certain texts depicted women in a very negative light. For example, in the Malleus Malificarum (1486), Kramer and Sprenger state that:

. . . since they are feebler both of mind and body, it is not surprising that they should come more under the spell of witchcraft. For as regards intellect or the understanding of spiritual things, they seem to be of a different nature from men. . . . Women are intellectually like children. . . . (1970:44)

I believe that these factors influenced Bodin and others to reject the notion that women, and witches in particular, were melancholic.

A notable exception was Saint Teresa of Jesus (1515-1582). In her Book of the Foundations, Saint Teresa (1964:36-40) stresses that certain women may experience melancholic delusions due to the hardships of convent life. She asks that these women be treated carefully, and not mistreated by confessors. According to Sarbin and Juhasz (1967), her efforts had some effect in Spain. However, her ideas were not disseminated throughout Europe during her lifetime.

Finally, Weyer's broad generalization may have contributed to the rejection of his own theory. Weyer was not satisfied to suggest that suspected witches should be examined by physicians in order to ensure that some of them were not actually melancholic. Instead, he suggested that all suspected witches who confessed voluntarily were suffering from delusions caused by either a melancholic disposition, or by the use of specific drugs. This view was not only unacceptable, but simply untrue.

A physician named Erastus who was Weyer's contemporary attacked Weyer's "natural" explanation precisely on the grounds that it was much too general (see Monter 1969b:64). Erastus pointed out that not all witches could be classified as melancholics, nor were they all women. More importantly for purposes of this discussion, Erastus rejects Weyer's argument because melancholics rarely share the same delusions, whereas witches consistently described the same, or very similar, experiences.

CONCLUSION

During the second half of the sixteenth century, Johann Weyer and Jean Bodin became involved as the main protagonists in a major intellectual debate. Weyer began the argument by refuting many of the contentions found in the Malleus Malificarum which had been compiled by the Dominican Inquisitors Heinrich Kramer and Jacob Sprenger in 1486, and by suggesting that individuals who voluntarily confessed to being witches should be regarded as victims of melancholy. To support this argument, Weyer relied primarily on the Galenic medical system. Bodin countered by manipulating various subtleties and inconsistencies in the Galenic

system to give the impression that he had refuted Weyer's argument. More specifically, Bodin consciously or unconsciously made use of such ambiguities as the fact that: (1) the term melancholy had a variety of meanings during this time period; (2) the etiology of melancholy (the psychophysiological disease) could be explained in terms of either black bile or unnatural black bile; and (3) there was a juxtaposition of Galenic and Aristotelian views of melancholy.

Bodin's ability to selectively manipulate the Galenic system, and thereby to advance his own beliefs, does not by itself explain why Weyer's argument failed to gain credence among the intellectual classes of Europe at the time. I contend that in combination with a variety of other factors, Bodin's approach had a significant effect.

In summary, a variety of factors combined to neutralize Weyer's contention. Explained simply, Weyer failed because he presented a new idea within the constraints of an old system. Weyer provided natural explanations for both the phenomena people attributed to witches and the confessions of suspected witches. Yet he never questioned the notion that demons exist, and that they can affect and interact with human beings. Although his innovation did not challenge the belief that the devil played a role in human affairs, his ideas threatened the security of old beliefs. This threat then stimulated counterarguments. In this sense, as a proponent of new ideas, Weyer found himself engaged in an intellectual argument with traditional forces. At the same time, his innovation did not gain support among individuals who rejected many of the traditional beliefs. Weyer's argument followed the humoral beliefs of the period too closely to be accepted by "progressive" physicians. Thus, his explanation fell short because it was too innovative for "traditionalists," and too traditional for "progressives."

NOTES

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1. Avicenna (980-1037) is the Persian medical writer and practitioner who composed the famous *Canon of Medicine*. Although innovative in its own right, this work is based primarily on the Galenic medical system.

- 2. Johann Weyer's (Wier) work has not as yet been translated into English. For this reason, I will rely on the 1969 partial translation of his work for quotation.
- 3. As mentioned previously, the Harner (1973) article indicates that these drugs can produce hallucinogenic experiences.
- 4. For a discussion of Bodin's work on magic and witchcraft, see Anglo (1976), Baxter (1977a), Monter (1969a; 1969b), and Pearl (1982). Julian Franklin (1964) also presents an interesting discussion of Bodin's other works.
- 5. My views here are consistent with Anglo's discussion of the matter (1976:215-216).
- 6. In a recent article, Carol Laderman (1981:470) suggests that humoral systems may be inherently ambiguous, and thereby "subject to alteration and interpretation." This view is consistent with my findings.
- 7. Walker (1981:81-84) acknowledges that Darrel's insinuation was justified, and suggests that it was only when King James personally stepped in that officials began to reexamine the facts in witchcraft/possession cases (see also Kittredge 1929:319-328).

REFERENCES CITED

Anderson, Alan, and Raymond Gordon

1978 Witchcraft and the Status of Women--The Case of England. British Journal of Sociology 29:171-184.

Anderson, Robert D.

1970 The History of Witchcraft: A Review with Some Psychiatric Comments. American Journal of Psychiatry 126:1727-1735.

Anglo, Sydney

- 1976 Melancholia and Witchcraft: The Debate between Wier, Bodin, and Scot. In Folie et Deraison A La Renaissance. Editions de l'Université du Bruxelles, pp. 209-228. Colloque International tenu en novembre 1973 sous les auspices de la Federation Internationale des Instituts et Sociétés pour L'Etude de la Renaissance.
- 1977 Reginald Scot's Discoverie of Witchcraft: Scepticism and Sadduceeism. In The Damned Art: Essays in the Literature of Witchcraft. Sydney Anglo, ed. pp. 106-139. London: Routledge and Kegan Paul.

Appel, Willa

1977 Idioms of Power in Southern Italy. Dialectical Anthropology 2:74-80.

Aristotle (384-322 B.C.)

1957 Book XXX: Problems Connected with Thought, Intelligence and Wisdom. In Problems II: Books XXII-XXXVIII. W.S. Hett, translator pp. 155-169. London: William Heinemann Limited.

Avicenna (980-1037 A.D.)

1930 The Canon of Medicine. In A Treatise on The Canon of Medicine of Avicenna: Incorporating a Translation of the First Book. O. Cameron Gruner, ed. London: Luzac and Company.

Babb, Lawrence

1951 The Elizabethan Malady: A Study of Melancholia in English Literature from 1580 to 1642. East Lansing, Michigan: Michigan State College Press.

Baxter, Christopher

1977a Jean Bodin's De La Demonomanie Des Sorciers: The Logic of Persecution. In The Damned Art: Essays in the Literature of Witchcraft. Sydney Anglo, ed. pp. 53-75. London: Routledge and Kegan Paul.

1977b Johann Weyer's De Praestigiis Daemonum: Unsystematic Psychopathology. In The Damned Art: Essays in the Literature of Witchcraft. Sydney Anglo, ed. pp. 76-105. London: Routledge and Kegan Paul.

Benivieni, Antonio (1443-1502 A.D.)

1954 The Hidden Causes of Disease. Charles Singer, translator. Springfield, Illinois: Charles C. Thomas.

Ben-Yehuda, Nachman

1980 The European Witch Craze of the 14th to 17th Centuries: A Sociologist's Perspective. American Journal of Sociology 86:1-31.

Blumer, Herbert

1969 Symbolic Interactionism: Perspective and Method. Englewood Cliffs, New Jersey: Prentice-Hall, Incorporated.

Bodin, Jean

1580 Refutation des opinions de Jean Wier. In Demonomanie des Sorciers by Jean Bodin. Paris: Jean Dupuis.

1969 Demonomanie des Sorciers. In European Witchcraft. W. E. Monter, ed. New York: John Wiley and Sons, Incorporated.

Bright, Timothy

1586 Treatise of Melancholie. Amsterdam: Theatrum Orbis Terrarum, Limited. (Reprinted by Theatrum Orbis Terrarum, Limited in 1969).

Burr, George Lincoln

1943 On the Loos Manuscript. In George Lincoln Burr: His Life, by R. H. Bainton; and Selected Writings. Lois Oliphant Gibbons, ed. pp. 147-155. Ithaca, New York: Cornell University Press.

Burton, Robert

1965 The Anatomy of Melancholy (A Selection). Lawrence Babb, ed. East Lansing, Michigan: Michigan State University Press. Originally published in 1621.

Caporael, Linnda R.

1976 Ergotism: The Satan Loosed in Salem? Science 192:21-26. Cipolla, Carlo M.

1976 Public Health and the Medical Profession in the Renaissance. Cambridge, England: Cambridge University Press.

Clark, Stuart

1977 King James's Daemonologie: Witchcraft and Kingship. In The Damned Art: Essays in the Literature of Witchcraft. Sydney Anglo, ed. pp. 156-181. London: Routledge and Kegan Paul.

Cohn, Norman

1976 Europe's Inner Demons. London, England: Paladin.

Conner, John W.

1975 The Social and Psychological Reality of European Witchcraft Beliefs. Psychiatry 38:366-380.

Cotta, John

1616 The Triall of Witch-Craft. Amsterdam: Theatrum Orbis Terrarum, Limited. (Reprinted by Theatrum Orbis Terrarum, Limited in 1968).

Currie, Elliott P.

1968 Crimes Without Criminals: Witchcraft and its Control in Renaissance Europe. Law and Society Review 3:7-32.

Deacon, John, and John Walker

Dialogical Discourses of Spirits and Divels. Amsterdam:
Theatrum Orbis Terrarum, Limited. (Reprinted by Theatrum
Orbis Terrarum, Limited in 1976).

Douglas, Mary

1970 Thirty Years After Witchcraft, Oracles and Magic: Introduction to Witchcraft Confessions and Accusations.

Mary Douglas, ed. pp. xiii-xxxviii. London: Tavistock Publications.

1973 Natural Symbols: Explorations in Cosmology. Second Edition. London: Barrie and Jenkins, Limited.

Dubos, Rene

1976 Man Adapting. New Haven, Connecticut: Yale University Press. Originally published in 1965.

Easlea, Brian

1980 Witch Hunting, Magic and the New Philosophy: An Introduction to Debates of the Scientific Revolution, 1450-1750. Sussex, England: The Harvester Press.

Ehrenreich, Barbara, and Deirdre English

1972 Witches, Midwives and Nurses: A History of Women Healers.
Glass Mountain Pamphlet Number One. State University of
New York College at Old Westbury, New York: The Feminist
Press.

Estes, Leland L.

1983 The Medical Origins of the European Witch Craze: A Hypothesis. Journal of Social History 17:271-284.

Evans-Pritchard, E. E.

1937 Witchcraft, Oracles and Magic Among the Azande. Oxford, England: Clarendon Press.

Foulks, Edward F.

1972 The Arctic Hysterias of the North Alaskan Eskimo. American Anthropological Association Anthropological Studies Number 10. Washington, D.C.: American Anthropological Association.

Franklin, Julian

1964 Jean Bodin and the Sixteenth-Century Revolution in the Methodology of Law and History. New York: Columbia University Press.

Friedenwald, Harry

1939 Andres A. Laguna, A Pioneer in His Views on Witchcraft. Bulletin of the History of Medicine 7:1037-1048.

Galen (ca. 130-200 A.D.)

1928 On the Natural Faculties. Arthur J. Brock, translator. London: William Heinemann.

1972 On Prognosis. In Greek Medicine: Being Extracts Illustrative of Medical Writers from Hippocrates to Galen. Arthur J. Brock, translator and annotator pp. 200-220. London: J. M. Dent and Sons, Limited. Originally published in 1929.

Ginzburg, Carlo

1966 I Benandanti: Richerche sulla stregoneria e sui culti agrari tra Conquecento e Seicento. Turin, Italy: Guilo Einaudi Editore, S.P.A.

Harner, Michael J.

1973 The Role of Hallucinogenic Plants in European Witchcraft. In Hallucinogens and Shamanism. Michael J. Harner, ed. pp. 125-150. New York and Oxford, England: Oxford University Press.

Harris, Marvin

1974 Cows, Pigs, Wars, and Witches: The Riddles of Culture. New York: Random House.

Harsnett, Samuel

1605 A Declaration of Egregious Popish Impostures. London: J. Roberts.

Henningsen, Gustav

1980 The Witches' Advocate: Basque Witchcraft and the Spanish Inquisition (1605-1615). Reno, Nevada: University of Nevada Press.

Hippocrates (460-? B.C.)

1939a Airs, Waters, and Places. In Hippocrates. W. H. S. Jones, translator, Volume 1, pp. 71-137. London: William Heinemann Limited.

1939b Ancient Medicine. In Hippocrates. W. H. S. Jones, translator, Volume 1, pp. 12-64. London: William Heinemann Limited.

Hoak, Dale

1983 The Great European Witch-Hunts: A Historical Perspective. American Journal of Sociology 88:1270-1274.

Jackson, Stanley W.

1969 Galen--On Mental Disorders. Journal of the History of the Behavioral Sciences 5:365-384.

James I, King of England

Daemonologie. Amsterdam: Theatrum Orbis Terrarum, Limited. (Reprinted by Theatrum Orbis Terrarum, Limited in 1969).

Kehoe, Alice B., and Dody G. Giletti

1981 Women's Preponderance in Possession Cults: The Calcium-Deficiency Hypothesis Extended. American Anthropologist 83:549-561.

Kieckhefer, Richard

1976 European Witch Trials: Their Foundations in Popular and Learned Culture, 1300-1500. London: Routledge and Kegan Paul.

Kinch, John W.

1972 A Formalized Theory of the Self-Concept. In Symbolic Interaction: A Reader in Social Psychology, Second Edition.

Jerome G. Manis and Bernard N. Meltzer, eds. pp. 245-252.

Newton, Massachusetts: Allyn and Bacon, Incorporated.

King, Lester S.

1970 The Road to Medical Enlightenment 1650-1695. London: Macdonald.

Kittredge, George Lyman

1929 Witchcraft in Old and New England. Cambridge, Massachusetts: Harvard University Press.

Klibansky, Raymond, Erwin Panofsky, and Fritz Saxl

1964 Saturn and Melancholy: Studies in the History of Natural Philosophy, Religion and Art. New York: Basic Books, Incorporated.

Kors, Allen C., and Edward Peters, eds.

1972 Witchcraft in Europe 1100-1700: A Documentary History. Philadelphia, Pennsylvania: University of Pennsylvania Press.

Kramer, Heinrich, and Jacob Sprenger

Malleus Malificarum. Reverend Montague Summers, translator and author of the introduction, bibliography, and notes. New York: Benjamin Blom, Incorporated.

Laderman, Carol

1981 Symbolic and Empirical Reality: A New Approach to the Analysis of Food Avoidances. American Ethnologist 8:468-493.

Larner, Christina

1981 Enemies of God: The Witch-Hunt in Scotland. Baltimore, Maryland: The Johns Hopkins University Press.

Leach, Edmund

1954 Political Systems of Highland Burma: A Study of Kachin Social Structure. Cambridge, Massachusetts: Harvard University Press.

Macfarlane, Alan

1970 Witchcraft in Tudor and Stuart England: A Regional and Comparative Study. London: Routledge and Kegan Paul.

Matossian, Mary K.

1982 Ergot and the Salem Witchcraft Affair. American Scientist 70:355-357.

Midelfort, H. C. Erik

1972 Witch Hunting in Southwestern Germany 1562-1684: The Social and Intellectual Foundations. Stanford, California: Stanford University Press.

Migliore, Sam

1983 Evil Eye or Delusions: On the "Consistency" of Folk Models.
Medical Anthropology Quarterly 14:4-9.

Monter, E. William

1969a Inflation and Witchcraft: The Case of Jean Bodin. In Action and Conviction in Early Modern Europe: Essays in Memory of E. H. Harbison. T. K. Rabb and J. E. Seigel, eds. pp. 371-389. Princeton, New Jersey: Princeton University Press.

1969b Law, Medicine, and the Acceptance of Witchcraft, 1560-1580. In European Witchcraft. E. William Monter, ed. New

York: John Wiley and Sons, Incorporated.

1977 Pedestal and Stake: Courtly Love and Witchcraft. In Becoming Visible: Women in European History. Renate Bridenthal and Claudia Koonz, eds. pp. 119-136. Boston, Massachusetts: Houghton-Mifflin Company.

Mora, George

1963 On the 400th Anniversary of Johann Weyer's "De Praestigiis Daemonum" --Its Significance for Today's Psychiatry. American Journal of Psychiatry 120:417-428.

Nemec, Jaroslav

1974 Witchcraft and Medicine (1484-1793). Publication of the United States Department of Health, Education, and Welfare, National Institutes of Health, Bethesda, Maryland. Washington, D.C.: United States Government Printing Office.

Paracelsus (1493-1541 A.D.)

1975 The Archidoxes of Magic. Robert Turner, translator. London: Askin Publications.

Pearl, Jonathan L.

1982 Humanism and Satanism: Jean Bodin's Contribution to the Witchcraft Crisis. Canadian Review of Sociology and Anthropology 19:541-548.

Pomponazzi, Pietro (1462-1525 A.D.)

1948 On the Immortality of the Soul. William Henry Hay II, translator. In The Renaissance Philosophy of Man. Ernest Cassirer, P. O. Kristeller, and J. H. Randall, Jr., eds. pp. 280-381. Chicago, Illinois: University of Chicago Press.

Robbins, Rossell Hope

1977 Introduction to Witchcraft: Catalogue of the Witchcraft Collection in the Cornell University Library. Martha J. Crowe, ed. pp. ix-xxcviii. Millwood, New York: KTO Press (Kraus International Publications).

Russell, Jeffrey

1976 Witchcraft in the Middle Ages. Secaucus, New Jersey: Citadel Press.

Saint Teresa of Jesus (1515-1582 A.D.)

1946 Book of the Foundations. In The Complete Works of Saint Teresa of Jesus: Volume Three. E. Allison Peers, translator and ed. London: Sheed and Ward.

Sarbin, Theodore R., and Joseph B. Juhasz

1967 The Historical Background of the Concept of Hallucination.

Journal of the History of the Behavioral Sciences 3:339-358.

Schoeneman, Thomas J.

1975 The Witch Hunt as a Culture Change Phenomenon. Ethos 3:529-554.

Scot, Reginald

The Discoverie of Witchcraft. J.R. Williamson, ed. and author of the introduction. New York: Centaur Press. Originally published in 1584.

Siegel, Rudolph E.

1968 Galen's System of Physiology and Medicine. Basel, Switzerland: S. Karger.

1973 Galen on Psychology, Psychopathology, and Function and Diseases of the Nervous System. Basel, Switzerland: S. Karger.

Sigerist, Henry E.

1933 Great Doctors: A Biographical History of Medicine. Eden and Paul Ceder, translators. London: George Allen and Unwin, Limited.

Singer, Charles, and E. Ashworth Underwood

1962 A Short History of Medicine. Oxford, England: Clarendon Press.

Spanos, Nicholas

1978 Witchcraft in Histories of Psychiatry: A Critical Analysis and an Alternative Conceptualization. Psychological Bulletin 85:417-439.

1983 Ergotism and the Salem Witch Panic: A Critical Analysis and an Alternative Conceptualization. Journal of the History of the Behavioral Sciences 19:358-369.

Spanos, Nicholas, and Jack Gottlieb

1976 Ergotism and the Salem Village Witch Trials. Science 194:1390-1394.

Szasz, Thomas S.

1970 The Manufacture of Madness: A Comparative Study of the Inquisition and the Mental Health Movement. New York: Harper and Row Publishers.

Temkin, Owsei

1973 Galenism: Rise and Decline of a Medical Philosophy. Ithaca, New York and London, England: Cornell University Press.

Thomas, Keith

1970 The Relevance of Social Anthropology to the Historical Study of English Witchcraft. *In* Witchcraft Confessions and Accusations. Mary Douglas, ed. pp. 47-79. London: Tavistock Publications.

1971 Religion and the Decline of Magic. Harmondsworth, Middlesex, England: Penguin Books, Limited.

Thorndike, Lynn

1934 A History of Magic and Experimental Science, Volume Three: The Fourteenth Century. New York: Columbia University Press.

1941 A History of Magic and Experimental Science. Volume Six: The Sixteenth and Seventeenth Centuries. New York: Columbia University Press.

Trevor-Roper, H. R.

1969 The European Witch-Craze of the 16th and 17th Centuries. Harmondsworth, Middlesex, England: Penguin Books, Limited. Walker, D.P.

1958 Spiritual and Demonic Magic: From Ficino to Campanella. London: The Warburg Institute, University of London. (Reprinted by Kraus Reprints, Millwood, New York 1969.)

1981 Unclean Spirits: Possession and Exorcism in France and England in the Late Sixteenth and Early Seventeenth Centuries. London: Scolar Press.

Wallace, Anthony F. C.

Mental Illness, Biology, and Culture. In Psychological Anthropology: Approaches to Culture and Personality. Francis L. K. Hsu, ed. pp. 255-295. Homewood, Illinois: Dorsey Press, Incorporated.

Weyer, Johann

De praestigiis daemonum. In European Witchcraft. E. William Monter, ed. pp. 37-47. New York: John Wiley and Sons, Incorporated. Originally published in 1563. (Reprinted as a single publication by E. J. Bouset, Amsterdam, 1967.)

Withington, E. T.

1955 Dr. John Weyer and the Witch Mania. In Studies in the History and Method of Science. Charles Singer, ed. pp. 189-224. London: William Dawson and Sons, Limited. Originally published in 1917.

Wittkower, Rudolf, and Margot Wittkower

1963 Born Under Saturn. The Character and Conduct of Artists: A Documented History from Antiquity to the French Revolution. London: Weidenfeld and Nicolson.

Zeller, Anne C.

1984 Arctic Hysteria in Salem. Paper presented at the joint annual meetings of the Canadian Ethnology Society, the Canadian Association for Medical Anthropology, and the Society for Applied Anthropology in Canada, Montréal, Québec, May 11-13, 1984.

Zilboorg, Gregory, in collaboration with G. W. Henry

1967 A History of Medical Psychology. New York: W. W. Norton and Company, Incorporated. Originally published in 1941.

1969 The Medical Man and the Witch During the Renaissance. New York: Cooper Square Publishers, Incorporated. Originally published in 1935.