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Chapter 1

Disability and Society before the Eighteenth Century: Dread and Despair

Chronology of Important Events in Europe

400 B.C.	The height of classical Greece; infanticide widely practiced
460–377 B.C.	Hippocrates; medical treatment of a range of exceptional conditions
384–322 B.C.	Aristotle; philosophy inspires derogatory views of exceptional persons
34 B.C.	Imperial Rome under the control of Augustus; deaf Quintus Pedius is taught painting
A.D. 130–200	Galen; further medical treatment, much of it founded on Hippocratic dictums
4th century	The rise of monasticism; first hospices are established for blind persons
476	Fall of Rome; barbarian tribes roam Europe
533	The Code of Justinian; legal mandates that describe and classify disabled persons in great detail
1348–1350	The Black Death; one-third of the population of Europe dies
1487	The Inquisition moves into a new stage as Tomás de Torquemada assumes leadership
1500	The height of the Renaissance; marginal improvements for handicapped persons appear
1578	Pedro Ponce de León undertakes the first authenticated education of handicapped persons, in Spain
17th century	European pioneers are involved in a variety of attempts to educate disabled persons

- 1620 Jean Pablo Bonet writes what is essentially the first book on special education
- 1662 The Royal Society of London receives charter, inspires philosophical inquiry into the nature of language and the teaching of deaf and blind individuals
- 1720 Daniel Defoe writes *The History of the Life and Surprising Adventures of Mr. Duncan Campbell*, the first popular exposé of the problems of deaf people

The treatment the members of any society extend to the exceptional persons in their midst cannot be understood or evaluated in a vacuum. We must know, first, something about the physical and social conditions confronting all people in a society. Our exploration, then, of the fate of disabled persons in the premodern societies of the Middle East and Europe begins with an overview of daily life in these cultures.

The vast distances of time and differences between our conditions and those of the far past so cloud our perceptions of the lives of our ancestors that it is difficult to visualize daily life in earlier societies. However, it is not so difficult to imagine that poverty, dirt, disease, and vermin were constant accompaniments to the daily round. Life for most people before the rise of modern medicine and public health was difficult and short. As late as the year 1800 the population of Europe reached only 150 million; half of the population were aged below twenty-one years, and the average life expectancy was only about thirty-five years (Mahendra, 1985).

Plague, disease, and malnutrition decimated the ranks of the great as well as the common. Women faced the continual peril of childbirth; until well into the nineteenth century, most females were perpetually in a state of pregnancy. Women spent their adult life, in addition to their other duties, in bearing, rearing and, all too often, burying their children. The male population was periodically decimated by war, at home or abroad. Besides the miseries of almost constant war, early societies suffered the incursions of great hordes of raiders, political and social chaos, and the dreadful affliction of inescapable, mysterious, and deadly diseases. People suffered not only from the evil effects of diseases now vanquished such as smallpox and typhus but also from the results of unsophisticated medical treatment and ubiquitous dental decay.

Social conditions also were very unlike our own. Illiteracy flourished among all classes. Although schools have been an integral part of society for centuries, probably emerging with the first literate city states of Mesopotamia, the ethical imperative to provide universal education for all children is a relatively recent phenomenon. Today the education of children is linked with the age of the child, but young people in earlier times lived lives we would consider adult. It was not until the seventeenth century that children were thought worthy of a teacher's attention and not until the middle decades of the nineteenth century that the acquisition of literacy skills constituted a principal developmental task for children between the ages of six and twelve.

Imperatives for universal schooling were closely tied to concerns for children as a separate and important part of society. Until a society recognized the

child as an active, feeling person who had a value independent of any other purpose and saw childhood as a discrete stage of development, not merely miniature adulthood, special facilities for the care and training of children would not be made available. Indeed, until fairly recently in recorded history, children were not even considered legally to be persons: they had no rights and were usually considered the property of their parents.

In premodern western societies infant mortality was high. Even in the mid-eighteenth century less than half the children born were expected to reach adulthood. Those who did survive infancy had little to look forward to. There were no special nurseries, no playgrounds, certainly no special toys. Children's books appeared as early as the fifteenth century, but until the beginning of the nineteenth, they were instructive or moralistic, not intended for the pleasure of the child. For most children, growing up was a haphazard experience, and among poorer classes even very young children were expected to contribute economically to the family.

In such a social setting, where general hardship was the norm and dependent persons, children included, were not viewed as problems for social solution, the status of exceptional children and adults was radically different from what it is today. In the thousands of years of human existence before 1800, life for most exceptional people appears to have been a series of unmitigated hardships. The great majority of disabled persons had no occupation, no source of income, limited social interaction, and little religious comfort. Conspicuously abnormal persons were surrounded by superstition, myth, and fatalism—especially fatalism. Their lives were severely limited by widely held beliefs and superstitions that justified the pervasive prejudice and callous treatment. Individuals seen as different were destroyed, exorcised, ignored, exiled, exploited—or set apart because some were even considered divine (Hewett, 1974).

THE INVISIBLE MINORITY: THE PREVALENCE OF DISABILITY

It is difficult even to estimate the true numbers of handicapped people in any early society. Confined by the uncertainty of historic data and the paucity of records, we can only guess at prevalence, although the most easily supported assumption is that handicapping conditions were noticeably more prominent than they are today. Plague, pestilence, and poverty—all precursors of major and minor disabling conditions—were the constant companions of humans in their trek through history.

Moreover, scattered evidence in early writings supports the notion that handicapping conditions were widespread and that disabled people have been present from the earliest times. Beginning with Homer, Greek and Roman writers portrayed a very wide range of human behavior, including instances so unusual as to be considered abnormal and requiring some special explanation. The ancients regarded history as a genre of storytelling and not as a careful record of fact; nevertheless, such historical writings as Herodotus' portrayal of a deaf prince (Herodotus, 1954, book 2) or Suetonius' references to handicapped people in Imperial Rome (Suetonius, [A.D. 120] 1957) offer glimpses into the past.

Later, after storytelling and history diverged, the authors of fictional stories continued to incorporate exceptional persons into their tales. The roles they assigned to handicapped characters likewise offer important insights into the prevailing social attitudes about exceptionality down through the years (see Box 1-1).

Legal mandates are more telling: legislators did not enact laws to control the orderly but to sanction divisive elements and others who were the focus of concern. Fragments remaining from the writings of the great jurists of the ancient world imply that careful consideration was directed toward the disabled population (Gaw, 1906, 1907; Hodgson, [1952] 1973).

The widespread occurrence of debilitating physical and mental conditions in premodern times probably resulted from a combination of factors. The absence of modern prenatal care and enlightened medical assistance, combined with poor maternal nutrition, meant that many infants did not survive or were born with physical or mental anomalies. Epidemics, plagues, and fevers periodically decimated the population, leaving survivors with a range of handicapping conditions. For example, scarlet fever got its modern name in 1685, but it is one of the oldest known diseases. It was common in the pre-Christian era and may have been responsible for many of the deaf, blind, insane, and retarded cases mentioned in ancient writings (MVD, 1925). The problems of unchecked virulent fevers and other illnesses were compounded by unsanitary conditions and the primitive state of medical knowledge. Limited mobility and consequent inbreeding ensured the passage of inherited conditions from one generation to the next; at the same time, the movement of troops in the constant wars that beset the ancient and medieval world spread many epidemics.

Fascinating conjunctions of epidemics or plagues and the resurgence of laws designed to control or eliminate the disabled population occur from time to time, but the evidence for a cause-and-effect connection remains too slim to support more than bare surmise. We could speculate, for example, that the plague that ravaged Athens in the fourth century B.C. led Plato to suggest that only the mental and physical elite be allowed to marry and procreate and Aristotle to advocate infanticide laws. Or that the great plague named for the Emperor Justinian prompted that monarch's jurists to direct minute attention to the status of disabled people in society.

No doubt throughout premodern history the disabled population formed a small though resilient minority—a minority always exposed to the prejudices of the majority, not only because they could not partake of normal life, but also because they represented evil or were seen as public threats. Being different drew cruel and callous reactions from society, yet the penalties society inflicted—legal sanctions, church expulsion, starvation, exile, or even death—were too unevenly administered to exterminate all persons with handicaps.

The concept of exceptionality throughout history has not been static. The paucity of information we have on prevalence is compounded by the pervasive lack of clarity in the differentiations among disabling conditions and by difficulties in determining just who constituted the disabled population. Individuals who challenged the political, social, or value systems of some earlier societies were apt to be judged mad, insane, heretical, or blasphemous and so were destined to be subjected to harsh sanctions. How many political and religious

Box 1-1

Literary Sources

Disability per se has rarely been the central subject of literature because it is not a universal concern. But literature offers some insight into the status of exceptional people in the past. It is not possible to know if in any instance literature reflected or molded prevailing attitudes toward the disabled; it does, however, give us some insight into the opinions concerning special people that were held by a society. When exceptional or disabled people do appear in literature and other artistic works, they are usually rendered as stereotypes, appearing to be either more or less than human (see Biklen, 1986; Brulle and Mihail, 1991; D. Kent, 1986; Kriegel, 1986).

Literary and artistic works show disability by means of a number of common images—disabled persons are portrayed as criminals or monsters or as people who are suicidal, maladjusted, or sexually deviant (Brulle and Mihail, 1991; Klobas, 1985; Longmore, 1985). Disabled people are often seen as suffering punishment for doing evil; they are portrayed as embittered by their fate, or as resentful of non-disabled people, whom they seek to destroy (Longmore, 1985). Such images reinforce negative stereotypes and foster common prejudices.

Traditionally, certain disabled groups appealed more to writers' imaginations, sometimes as part of a general societal concern. Insanity, madness, possession, seen as manifestations of divine punishment, form a common literary theme (Byrd, 1974). It may be no coincidence that the literature of the sixteenth and early seventeenth centuries—the time of the Spanish Inquisition, the witch hunts, and the establishment of the great lunatic hospitals—is so rich with portrayals of distraught and insane characters. Hamlet, Lear, Timon, and Ophelia, for example, all wear the mask of madness (Rosen, 1968). But Shakespeare's characters are simply among some of the best known of a whole gallery of characters to be found in such diverse contemporary sources as the plays of John Fletcher, John Webster, John Ford, Ben Jonson, and works by other Elizabethan and Jacobean writers (Rosen, 1968).

Shakespeare's Richard III serves as the prototype of the deformed villain whose outward manifestations illustrate his inward malignity (Fiedler, 1982). This villain emerges again and again, especially in Victorian literature. He is seen in the peg-legged sea captains Ahab and Long John Silver created by Herman Melville and Robert Louis Stevenson, in Victor Hugo's hunchback, and in the sinister Quilp who pursues Little Nell throughout Charles Dickens's *Old Curiosity Shop* (Fiedler, 1982).

In literature deaf persons often had their place in comedies; the blind, often in tragedies. In the early eighteenth century Daniel Defoe presented *The History of the Life and Surprising Adventures of Mr. Duncan Campbell* ([1720] 1903), a sensitive portrait of a deaf fortune teller in London and the first popular examination of the problems of the deaf person (Defoe 1903). Other writers treated deaf people with

less kindness; some, like Oliver Goldsmith, made them fools, buffoons, and the butt of jokes. Blind individuals fared somewhat better in literature. From the time of Homer, blind persons have generally been portrayed in sympathetic terms; the arts abound with blind poets, storytellers and musicians, and literature presents blind heroes for our contemplation.

Truly retarded individuals rarely appear in pre-Victorian literature—the fools of Shakespeare and his contemporaries were comics who were anything but foolish. Dickens paints gentle portraits of retarded and slower functioning characters; there is Little Dorritt's friend Maggy, forever a ten-year-old because of a childhood fever; Barnaby Rudge, a young man unable to cope with the complexities of emerging industrial society; and David Copperfield's droll friend Mr. Dick. John Steinbeck adopted the theme with Lennie Small in *Of Mice and Men*.

Charles Dickens was deeply concerned with heroes oppressed by the unfortunate circumstances of their environment. The master of pathos, Dickens awakens strong sentimental responses with characters such as Tiny Tim. Most poignant are Dickens's characterizations of vagrant and delinquent children. No sadder character exists than Jo, the vagrant crossing sweeper in *Bleak House*.

Dickens's Artful Dodger and his gang of small thieves were of the ilk that drew the attention of reformers in the latter half of the nineteenth century. But the foundling child, the epitome of poverty, emerged as a common figure in literature a century earlier. Henry Fielding's *The History of Tom Jones: A Foundling* (1749), for example, proved enormously popular. In *The Expedition of Humphry Clinker* (1771) Tobias Smollett developed the theme of reconciliation between an old man and his illegitimate son (Ramsland, 1989).

From the first, the movies have made dramatic statements about society's negative reactions to people who were different. Charles Chaplin's wonderful *City Lights* (1930) tells the story of a tramp and a blind woman; *Johnny Belinda* (1948) is about a deaf girl; and *The Miracle Worker* (1962) portrays the relationship of Helen Keller and her brilliant teacher, Anne Sullivan (see Michal-Smith, 1987).

nonconformists were confused in the public mind with the genuinely disabled population is unknown.

Our ability to assess the scope of the problem in earlier societies is further obscured by the lack of a consistent, sound means of discriminating between people who had physical disabilities (i.e., were crippled, dwarfed, epileptic, or deaf) and those who were intellectually handicapped or mentally ill. All were considered to form one, all-encompassing category. The lack of clear definitions means that the history of disability tends to focus on particular disabilities, those that were more clearly distinguished from the others. Until the close of the eighteenth century those who fell under the broad, elastic categories labeled as insane or blind or deaf and dumb commanded most notice.

Madness particularly attracted attention, although "idiocy" (mental retardation) as a discrete and separate condition was rarely mentioned (Mahendra,

1985).¹ The etiology and character of deafness eluded early physicians and philosophers; the condition was usually attributed to supernatural causes. Blindness was more clearly conceptualized, and blind persons throughout the centuries generally attracted more humane treatment than did those suffering other conditions. History records how some blind persons, estranged from their families and rejected by society, became bards, wandering from court to court, singing "strains divine." The tradition is reflected in many legends; for example, Ossian, the son of the Caledonian king Fingal, was just such a heroic figure of the third century. After losing his sight in a battle, he is said to have wandered about the countryside playing a harp and singing songs of battle and freedom (Farrell, 1956b).

Given the social and occupational requisites for survival in early societies, some groups that we so assiduously label and classify today were not even recognized as the logical or deserving recipients of social or legal concern. Before the advent of widespread literacy, when pushing the plow was more important than pushing the pen, mildly intellectually disabled people—those labeled today as learning disabled and those at the upper end of the spectrum of mental retardation, for example—would simply have merged into the general populace. In early times it seems probable that only the grossest examples of mental defect would have been considered remarkable (Penrose, [1949] 1966). However, those far down the continuum, affected perhaps with multiple handicaps or medically fragile conditions, could not have been expected to survive.

THE MANAGEMENT OF DISABLING CONDITIONS IN ANTIQUITY

Prehistoric and Egyptian Practices

Preagricultural societies could provide little aid and minimal solace to disabled persons; high survival rates are unlikely. Severely impaired individuals would have been incapable of enduring the hardships of nature, unlikely to have been able to detect and ward off enemies, and unable to hunt or forage for food. Moreover, as noncontributing members of the group, they would have constituted an economic hazard.

Archeological findings indicate that aberrant behavior was treated by shamans, priests, or magicians. The shaman or witch doctor, with his skill in invoking help from the spirit world, probably served as the physical and mental healer, and shamanic law was as real to early civilizations as that of today's medicine is to us. Paleontologists, working with remnants of the Stone Age and later, hypothesize that bits of bone, teeth of animals, and vertebrae of snakes found in amulet bags were thought to contain magic force that shamans used to ease their patients (Schmidt, 1936). Cave dwellers treated sufferers by chipping holes in their skulls in order to allow the possessing demons to escape (Apter and Conoley, 1984; Harms, 1976). Hebrew writings indicate that in that society bizarre behavior was interpreted as evidence of the invasion of the body by evil spirits. Terrible exorcism rites were performed by priests, who sometimes succeeded in ridding the people of possession only by killing them (Apter and Conoley, 1984).

¹On the perceptions of and treatment for mental illness in antiquity, see Gill (1985).

After about 10,000 B.C. humanity began a gradual, remarkable transformation: the revolution was the introduction of farming, which began in the Middle East and from there spread over most of Europe. Hunting and food gathering began to give way to agriculture in the areas that constitute present-day Syria, Iran, Iraq, and Turkey. Eventually, in the warm and fertile lands between the great rivers Tigris and Euphrates in present-day Iran the Sumerians built the world's first hill towns of mud and brick and created the essential foundation of civilization—the literate city state.

Up to this point in history humans had only been figures on the landscape. Following game, a single family needed many miles of land over which to roam in search of food; but for sowing crops and raising livestock a few dozens of acres were enough, and food could be stored. Now, as humans began to dominate and change their environment, shaping it to their own purposes, they moved on from nomadic hunting to agriculture, symbolic reasoning, verbal communication, and life in ever larger groups. Towns and cities began to emerge.

With the advent of agriculture and urbanization, opportunities for disabled persons, at least for mere survival, seem to have increased. The ancient Egyptians were the first to document an interest in disabilities and disabled individuals. The Egyptian Ebers papyrus (1550 B.C.), which is probably based on even earlier writing (Feldman, 1970) woven around Imhotep, the Egyptian physician (3000 B.C.), contains a collection of ancient recipes, sober advice, and magic for physicians covering many human ailments, from abortion and tumors. The papyrus contains oblique references to mental retardation and specific discussions of epilepsy, as well as the first known reference to deafness (Moores, 1987).

Given the amount of water-borne blindness and other visually impairing conditions prevalent in Egypt even today, it is not surprising that physicians of ancient Egypt directed much attention to blindness. Early manuscripts described trachoma and gave prescriptions for its cure. To the accompaniment of incantations, a solution of copper, myrrh, and cypress seeds as well as other ingredients was applied to the patient's eyes with a goose quill (Farrell, 1956b).

The Egyptians were concerned not only with the study of causes and cures of disabilities but with the personal and social well-being of afflicted individuals. At Karmah the priests trained blind persons in music, art, and massage; they participated in religious ceremonies, and in some periods blind persons represented the largest portion of poets and musicians (Moores, 1987). Mentally retarded and other disabled children may have been protected by the followers of Osiris, the most revered of all Egyptian gods (Harms, 1976; Scheerenberger, 1982). Deaf persons garnered less regard: "There is no use wasting words upon the dumb," succinctly commented one early Egyptian (De Land, 1931, p. 7).

Infanticide, the Family, and the State

Ancient medicine seems to have made very little of the life of the newborn, and many early societies practiced infanticide. The Greeks and Romans shared the notion that a vital state arises from the innate strength of its citizens, and they enacted laws designed to weed out early those who could not contribute. "As to the exposure and rearing of children," said Aristotle in his *Politics*, "let there be a law that no deformed child shall live." In a similar vein Hippocrates found it natural to raise the question "Which children should be raised?" Later

Soranus (early second century A.D.) defined the art of child rearing as that of recognizing "the newborns that are worth bringing up" (Etienne, 1976, p. 131).

To the Greeks, children were the property not of their parents, but of the commonwealth. In Sparta, under the laws of Lycurgus, newborn babies were routinely brought before the elders to be examined for their fitness for citizenship. Those seen as being physically capable of developing into warriors were formally adopted by the state, although they were left in the charge of their mothers until age seven. Infants found to be idiotic, blind, or otherwise disabled were exposed to the elements in a gorge in the Taygetus Mountains, thrown into the River Eurotes, or abandoned in the wilderness. Following Solon's laws, Athenians killed their weak children outright or placed them in clay vessels and left them to die by the wayside (French, 1932; Pritchard, 1963). Similar customs, repellent to us for their astounding cruelty, were found in other Mediterranean and European cultures. In Carthage, for example, blind children were burned on a slow fire as a sacrifice to the sun (Bowen, 1847).

Cicero intimated that Rome readily adopted the Greek attitude toward handicapped infants (Barr, [1904b] 1913), although the Romans looked to the family, rather than the state, as the basic unit of socialization (Despert, 1970). The ancient Roman legal code, the Law of the Twelve Tables, dating from the fifth century B.C., was essentially a codification into statutory law of existing customs, reflecting the preponderantly agricultural character of the Roman community (see Steinberg, 1982). Following mandates detailed in the Tables, the family was regarded as sacred; all descendants were subject to the authority of the male head of the human family, the *paterfamilias*. He, as the sole family member considered as a Roman citizen with full legal rights, possessed the power of life and death over family members. As child rearing was the responsibility of the family rather than the state, the father, with his absolute power in the family, had the right to reject a child at birth (de Mause, 1974), to kill, mutilate, exile, or sell his children, or to divorce a wife on any grounds. Any child under three who might someday become a burden on society was thrown into the Tiber by the father. Infants were also left to die in the sewers that ran through the streets of ancient Rome.

Despite the existence of such practices, there are indications of a reluctance to resort to infanticide in ancient times. Early sources contain references to sickly or deformed children and illegitimate sons—the ones who could have been exposed and were not (Bell and Harper, 1977). Greece and Rome began to place restrictions on infanticide; some cities began to limit the right of the parents to kill their newborns; some required that the approval of five neighbors be obtained before infants could be killed; and others halted the infanticide of first-born males. Thebes outlawed infanticide altogether (de Mause, 1981).

By the time of the Empire (from about 30 B.C.) the rural character of Rome had altered, and strict adherence to the Twelve Tables relaxed. The inflexible authority of the *paterfamilias* was gradually reduced; he no longer held absolute authority over his wife and could not exile his children. Now, unwanted infants were sometimes placed at the base of the Columna Lactaria, and the state provided wet nurses to feed and save the children found there (Scheerenberger, 1982, 1983). In the second century A.D. the *paterfamilias* was deprived of the right to expose his children; by the third century child exposure was the equiv-

alent of murder, although it was not until the fourth century that male parents finally lost all power of death over members of the family. Edward Gibbon (1952) surmises that great numbers of infants who might have been exposed by their parents were rescued and then baptized, educated, and maintained by the early Christians. By the fourth century the Emperor Constantine offered financial assistance to families who might otherwise have abandoned or killed their newborn children (Gibbon, 1952).

Disabled children who survived these Draconian measures—and there appear to have been many, possibly the result of parental solicitude, undetected congenital conditions, or postnatal handicaps—were tolerated if they were of economic or social value. In Rome many blind boys were trained to become beggars or were sold as rowers; blind girls became prostitutes (French, 1932). Mentally retarded people were sold as slaves, taken for beggars, or sometimes deliberately maimed to add to their value as objects of charity. Some disabled people served Rome as amusements or diversions; a wealthy family occasionally kept a mentally retarded person as a fool for the amusement of the household and its guests (Kanner, 1964). Seneca, sometime tutor of Nero, speaks of a blind imbecile (*fatua*) who belonged to his wife (Barr, 1904b). By the second century Roman tastes led to greater popularity for handicapped people as a source of household amusement. A special market was established where a buyer might purchase legless, armless, or three-eyed men, giants, dwarfs, or hermaphrodites (Durant, 1944).

Aversion and distaste characterized the general attitudes of Romans toward disabled persons. Suetonius, premier gossip of the doings of Imperial Rome, confided that the Emperor Augustus "loathed people who were dwarfish or in any way deformed, regarding them as freaks of nature and bringers of bad luck" (Suetonius, [A.D. 120?] 1957, p. 100). It must then be assumed that Augustus avoided the stage performances of the well-born Lycius, a dwarf less than two feet tall with a tremendous voice. Yet, in deference to the will of Julius Caesar, Augustus assumed responsibility for the education of deaf Quintus Pedius; the lad was taught painting, the first recorded evidence of the education of a deaf person (H. P. Peet, 1851).

Medical Treatment

Throughout history, the medical aspects of disabilities have been paramount; other concerns relating to disability have been secondary, where they have been considered at all. What Harlan Lane (1991) and Steven Gelb (1989) refer to as the "medicalization" of special education can be traced back to the Greeks and beyond. Medical investigation typically preceded attempts at education; certainly, no formal training facilities for disabled people were available until the mid-eighteenth century, though attempts to treat medically were widespread long before that. Typically, the causes of a condition have garnered far more attention than its impact.

In the eyes of the Greeks and Romans three categories of disability warranted attention—insanity, deafness, and blindness. Of these, madness (joined as it was with retardation and epilepsy) assumed the gravest proportions in the opinion of physicians, philosophers, and the general population.

Hippocrates (460–377 B.C.?), who founded one of the great medical schools on the island of Cos, illuminated the path that later physicians would follow. In the treatment of disabilities Hippocrates adopted accounts of medical techniques from ancient Egypt. He attempted to treat a variety of handicapping conditions—visual impairment, deafness, epilepsy, and mental retardation—and, in doing so, largely discounted older conceptions of etiology.

For many centuries humans believed that there was a pantheon of gods who lived on mountains or in trees or wherever, and that the afflictions of disabled persons were a visitation of divine or demonic origin (Hodgson, [1952] 1973; H. P. Peet, 1851; Zinsser, 1935). It was widely supposed that disabilities were in the charge of invisible superhuman entities who behaved unpredictably. Early humans deeply believed that the power to cause physical and mental derangement was carried by the gods, who inflicted disability as a punishment upon those who incurred their anger. If the gods were not to blame, then a malignant being who disliked humanity was seen as responsible for evil and unhappiness.

With the rise of Christianity came the belief in the devil, or Satan, as the prime suspect in handicapping conditions. Although early Christianity saw itself as having vanquished a pantheon of gods, piety now conceived the notion of punishment or vengeance from a Divine Master in retaliation for the sins of the affected individual or the parents. Rampant superstition, for example, placed deaf individuals “under the special curse of God” (Stone, 1869, p. 97). Madness signified divine punishment, and blindness was “one of those instruments by which a mysterious Providence has chosen to afflict man” (Dunscombe, 1836, p. 96). Many disabled persons were viewed as polluted, creatures of evil omen, dangerous to the community and to themselves. They were shunned by all who did not wish to be defiled or corrupted, or who had any regard for the safety of their own body and soul. Yet physicians, beginning with Hippocrates, inveighed against the notion that evil spirits and demons caused mental derangement and other disabling conditions (Rosen, 1968).

Hippocrates stressed physiological diagnosis but still retained a nodding acquaintance with the supernatural. He practiced a “rational supernaturalism” (Edelstein, 1937); he assumed that the mystical origins of mental and physical anomalies were less important than causes explainable through observation and diagnosis. Hippocratic medicine was based on knowledge obtained by butchering animals and examining battle wounds, not by examining the human body. Wounds rising from external causes were studied in terms of cause and effect; symptoms without a wound were variously attributed to a common physiological cause, to the spirits, or to the gods.

Fundamental to Hippocratic medicine were the four humors (fluids)—blood, lymph, yellow bile, and black bile—of which the ancients deemed blood to be the most important. Each humor was endowed with a basic quality, such as heat, cold, dryness, and moistness, from which arose certain traits and conditions. A sanguinous person, for example, was thought to be subject to inflammatory diseases but could sustain much blood letting; a choleric person was thought to be one who acted hastily and rashly. Disease developed when internal or external factors produced an excess of one of the humors or when an imbalance of these basic qualities acted on organs to produce deleterious effects.

To Hippocrates, mental abnormality was a disease, or a symptom of one, caused in the same way as diseases of the body (Rosen, 1968). Madness was produced by excess of a humor. When present in abundance and under certain conditions, black bile was thought to be a particularly potent cause of various forms of mental illness, especially the condition called melancholia (Rosen, 1968).

Misunderstandings about the nature and causes of sensory handicaps prevailed, partly because of reluctance to dissect the human body and to indulge in self-study and partly because of the difficulties in studying the ear, the eye, and the brain resulting from their inaccessibility and extreme delicacy. Blindness, both in its manifestations and its consequences, was more clearly conceptualized than deafness. When dealing with hearing loss, the ancients considered only the middle and the outer ear; Hippocrates attempted no more than the treatment of otitis media (middle ear infection) (Hodgson, [1952] 1973).

In the time of Augustus and Tiberius Caesar (the first half of the first century A.D.), the medical knowledge of the world was collected and probably amplified by Aulus Cornelius Celsus (25 B.C.–A.D. 50) in *De Medicina* (Hodgson, 1973). Celsus described how he followed the prescriptions of his great predecessors, especially Hippocrates (Rosen, 1968), although he diverged from Hippocratic dictums in treatment regimes. For insanity, Hippocrates prescribed rest, useful work, and understanding companionships. In contrast, Celsus prescribed a wide variety of animal, vegetable, and mineral substances. Probably the most widely used was hellebore, which, given the numerous references in the nonmedical literature, may have been used in antiquity much as aspirin is today (Rosen, 1968). The violently purgative effect of hellebore was employed in the standard treatment of insanity (Rosen, 1968). Celsus recommended black hellebore for depression and, if the patient was "hilarious," white hellebore (Bromberg, 1975). If herbs and medication failed, then Celsus approved correction by blows, stripes, and chains (Beck, 1811).

The primitive state of anatomical knowledge led Celsus to prescribe for ear problems cures and agents that could only have aggravated the damage to an ear drum already subject to chronic otitis media. For example, for ears with pus he recommended that the sufferer "pour in box-thorn juice by itself . . . or leek juice with honey . . . or the juice of sweet pomegranate warmed in its rind, to which a little myrrh is added . . . to wash out the ear with diluted wine, through an ear syringe, and then pour in dry wine mixed with rose-oil, to which a little oxide has been added" (Hodgson, [1952] 1973, p. 64). For those dull of hearing because of age, Celsus suggested "hot oil poured in, or verdigris mixed with honey wine," and for other hearing problems "oil in which worms have been boiled" (Hodgson, [1952] 1973, p. 64).

Of all the physicians who thronged toward Rome, Galen (A.D. 130–200) was one of the most influential. He extended the humoral theory of Hippocrates into a body of medical writing that influenced medical progress until the Renaissance (Bromberg, 1975). Galen maintained the Hippocratic stance that rejected supernatural explanations of mental disorder and viewed the condition in essentially physiological terms (Rosen, 1968). He held conventional attitudes toward deafness, assuming a common cerebral origin for speech and hearing (Hodgson, 1973). In treating deaf persons, Galen and later physicians often

performed an operation “to cure their dumbness by an operation on the ligament of the tongue” (De Land, 1931), a procedure that persisted well into the twentieth century.

Philosophical Speculation

In the ancient world philosophy and medicine were closely intertwined: medical prescriptions and philosophical assumptions about handicapping conditions mirrored each other, to be echoed in legal mandates. In searching out the effects of sensory deprivation, Aristotle (384–322 B.C.) concluded, in essence, that if one of the faculties is lost, some knowledge must also inevitably be lost. Of the three senses of smell, hearing, and sight, he noted that sight was the most valuable as far as the necessities of life were concerned but that hearing was more important in the development of the intellect. Aristotle viewed blindness as the more serious handicap but less debilitating intellectually than deafness; he assumed that those blind from birth were more intelligent than those born deaf. With his contention that, of all the senses, hearing contributed most to intelligence and knowledge, Aristotle was led to characterize deaf individuals as “senseless and incapable of reason,” and “no better than the animals of the forest and unteachable” (McGann, 1888, p. 9).

Deafness baffled Hippocrates—he understood the mechanism of speech but assumed a common cerebral origin for speech and hearing (H. P. Peet, 1851), and he finally surmised that there was something supernatural about deafness (Hodgson, [1952] 1973). Aristotle viewed speech as an instinct, not as a skill acquired by imitation, and also saw speech and hearing as arising from a common site. “Men that are born deaf,” he stated in *Historia Animalium*, iv, 9, “are in all cases dumb; they can make vocal noises but they cannot speak” (Aristotle, 1910).

With his pronouncements on the status and intelligence of deaf people, Aristotle determined their fate for nearly two thousand years. In the domains of science and philosophy Aristotle’s statements were accepted without reservation by the medieval scholars; what the Scriptures were to theology, his work became to science and philosophy (H. C. Barnard, 1922). Hence, Aristotle’s notion that speech was divine and his teaching that nothing can exist in the human mind that has not been received through the senses (Smith and Ross, 1910) profoundly affected the way deaf people were perceived in society as recently as the eighteenth century. Coupled with this was Hippocrates’ establishment of an intimate relation between the nerves of speech and hearing, which further exacerbated the plight of deaf individuals. They were treated as not only deaf but as dumb, owing to some defect of the brain, some incapacity of the vocal organs, or to possession by some diabolical spirit (see Ferrari, 1906). On the other hand, Aristotle attributed to blind people equal intellects with the sighted; that, combined with the overt nature of visual impairment, explains why they were accorded marginally more humane treatment.

Legal Mandates

A march through the centuries shows that disabled people were always the object of social concern, but whether community attention was a boon or a li-

ability depended on many different factors. No two societies viewed their disabled populations in precisely the same way.

Hebraic law contains some of the first known provisions for the disabled, founded on the biblical question "Or who maketh the dumb or deaf, or the seeing or the blind? Have not I, the Lord?" (Exodus 4:10 ff.). Under strictures outlined in the Talmud and Midrash, blind and deaf persons, widows, orphans, and the needy were all treated with special consideration; this rabbinical law was in turn based on certain key passages in Hebrew scripture (Deuteronomy 24:17–18 and 26:18; Leviticus 19:9–10, 14, and 23:22, for example). The Old Testament enjoined: "Thou shalt not curse the deaf nor put a stumbling block before the blind" (Leviticus 19:14) and cursed those "that maketh the blind to wander out of the path." Benign protection under Hebraic law was later reiterated by Maimonides or Moses ben Maimon in the twelfth century and by Shulhan Aruch in the sixteenth (Hodgson, [1952] 1973).

The Greeks sought medical answers to disabilities, but Greek law took little account of the disabled; it was left to the legal minds of Rome to wrestle with the social problems of disabled children and adults. The Roman jurists were not concerned with the nature and cause of disabilities; their sole concern was to ascertain the fact of unsoundness of mind or body and its consequences for the performance of acts judged before the law. This focus led them to create a legal framework characterized by institutions such as guardianships that provided a pattern for later legal developments affecting exceptional persons (see Gaw, 1906, 1907; Hodgson, [1952] 1973).

When confronting mental illness, Roman law took madness into account chiefly to protect property and the members of the community. Under Roman law mental defectives (*mente capti*) were designated as deficient in intellect and provided with guardians. Roman law recognized that those who were born deaf but were capable of speech were persons at law and proficient to discharge legal obligations; those deaf from birth without speech, however, were considered incapable and were classed with madmen and infants, unable to perform any legal act on their own behalf (Gaw, 1906). The law was based on the belief that deaf persons who could not speak had not been deprived of their rights; rather, they had been relieved of the responsibilities of citizenship they could not meet (Gaw, 1906).

In 533 the Roman emperor Justinian (d. 565) commanded that a revised collection of the statute laws be compiled. Scholars brought together many scraps of ancient laws and edicts and finally compiled a fifty-volume rendering of judicial interpretations, the *Corpus Juris Civilis*, which contained the *Digest* as well as a four-volume handbook of civil law, the *Institutes*. Justinian did not make many changes in the law regarding handicapped individuals (Gaw, 1907) but simply codified the ancient edicts that encompassed mental defectives (*mente capti, fatui*), the deaf, the dumb, and those subject to incurable malady (*cura debilium*).

The Code of Justinian classified disabled persons in infinite detail, allowing or denying rights and responsibilities to the different grades of handicap. Under Justinian's law, for example, lunatics and idiots were considered incapable of contracting marriage. The consent of an insane father was not necessary for the marriage of his children, and a person with an insane descendant was permitted

to name substitute persons as heirs. There were five classes of deafness, ranging from those who were deaf but could speak to those totally without hearing and without speech (Gaw, 1906).

Although only two manuscripts of the original *Corpus* survived, we do know that Justinian's laws were merged with the codes of the Germanic invaders to form the basis of the law in most European countries. Thanks in part to the uniformity supplied by Justinian, the status of disabled individuals did not alter materially in those countries where the civil law prevailed from the time of Justinian in the sixth century to the mid-eighteenth.

DISABILITY AND THE RISE OF CHRISTIANITY

The Early Christian Era

Beginning in the third century great hordes of ravaging barbarians invaded the Roman Empire. In 410 Alaric and his Visigoths sacked Rome and humiliated the imperial city when its proud senators refused to pay the landless barbarians protection money. With the fall of Rome, those parts of western Europe that had developed urban centers retreated to an agrarian form of society, and systems of feudalism arose. Education, culture, and learning now were relegated to a far less elevated status.

From the death throes of Rome arose a new religion that rapidly overwhelmed paganism and its many cults. In three short centuries Christianity grew from the creed of a tiny handful of believers to become the official religion of most of the Western world. Constantine, the first of the Holy Roman Emperors, legitimized Christianity, declaring it to be the official religion of the Roman Empire in 312. For many centuries to come, civil and religious affairs in Europe were to be inextricably mingled.

The fall of Rome ushered in long centuries of disaster in Europe—social turbulence, plague, warfare, hunger, and famine threatened the lives of the entire population. Life for most people was short; less than half the population survived to maturity (Mahendra, 1985). Cruelty at the hands of humans and hardship at the vicissitudes of nature were commonplace. In a period when disaster periodically threatened the survival of the fit, disabled persons must have fared badly. Little if any aid was proffered on their behalf, and even then, solace was granted only a few.

Monasticism proved to be singularly suited to the needs of the chaotic age that followed the collapse of Roman Empire. By the fourth century strict cloistering was prevalent, as monastic life attracted increasing numbers of men and women who strove for moral perfection through ascetism. By the sixth and seventh centuries monks and nuns had become the principal agents of civilization; in fact, throughout the Middle Ages little work that was rooted in learning and enlightenment was produced outside the cloisters.

The cloistering of handicapped persons seemed a natural outgrowth of the monastic impulse, and, in the context of these dark times, it proved advantageous, as it protected them from the dangers confronting them in the general society. A hospice for the blind was established in the fourth century

in Caesarea in Cappadocia (in present-day Turkey). As the centuries passed, hospices—many offering facilities for other special groups—gradually spread across Europe.

For example, in the fifth century Saint Lymnaeus built special cottages adjoining his hermitage at Syr in Syria where he taught blind persons to sing pious songs and they, in turn, accepted alms from those who were moved by their singing. Saint Herre (d. 565) was born in a tiny village in Brittany. Tradition presents him as a sightless, barefooted man who, led by a white dog, wandered throughout the countryside teaching children. Apparently, Herre later formed a small monastery in Brittany that became a shrine for blind musicians (Farrell, 1956b). Saint Bertrand, bishop of Le Mans in France, founded an institution for the blind in the seventh century (see Farrell, 1956b; French, 1932).

Cloistering was not restricted to blind persons. Saint Basil, bishop of Caesarea in A.D. 370, gathered all types of disabled people into the monastic institutions that he controlled. Each handicapped group had separate quarters, but all engaged in common work and worship. Legend holds that during the same century Nicholas, the bishop of Myra, a town in present-day southern Turkey, provided dowries for poor girls and cared for idiots and imbeciles (Barr, [1904b] 1913). For his contributions, Saint Nicholas became the patron saint of the retarded and of pawn brokers, although we remember him as Santa Claus. And the Belgian village of Gheel is famous for its unique system of caring for the mentally ill. Here was located an infirmary and a church centered on the shrine of Saint Dympna. Retarded children were given work in the fields and in the household under the guidance of country folk and the spirit of the saint (Bromberg, 1975; Scheerenberger, 1982).

Even more rare in the early Christian era than isolated attempts to provide care for disabled persons are any indications of attempted cures. Although most references to cures are permeated by an aura of magic, some may well point to what were valid educational attempts posing as miracles. In 504, for example, Saint Severinus “healed Eulilius, Bishop of Nevers, who has for some time been deaf and dumb” (De Land, 1931, p. 13). Saint John of Beverley in England was said to have “cured a dumme man with blessing him” (Porter, 1847), the reason that Saint John later became patron saint of the deaf (see Bede, 1849). The life and miracles of Saint Louis, attributed to Guillaume Pathos, confessor of Queen Margaret of Provence, and composed in 1302 or 1303, contains the story of an eight-year-old boy who had never heard or spoken but who regained his hearing at the tomb of Saint Louis (P. B. Fay, 1923). Saint Elizabeth of Hungary was reported to have cured a boy’s deafness and dumbness, and Saint Claire is credited with the cure of one Sister Christine (De Land, 1931; H. P. Peet, 1851).

Accounts of treatment in this period point to the influence of the church. Nevertheless, the early Christian church, a potent and stern overseer of people’s lives, proved to be equivocal in its attitudes toward those with disabling conditions. The early Christians aspired to create a spiritual revolution rather than a series of coherent social changes. As they preached the spiritual equality of all and diligently promised the kingdom of heaven to the meek in spirit, the hierarchy marked for heavenly attainment systematically omitted certain groups.

Saint Augustine of Numidia, bishop of Hippo in the late fourth century and early fifth century, for example, exalted marriage and formulated the basic

Christian attitude that marriage provides a lawful channel for the relief of lust, results in the procreation of children, and establishes a Christian atmosphere for their rearing. However, Augustine renounced any claims of disabled people for participation in the covenant of the Lord. He may have interpreted Paul's charge to "comfort the feeble-minded" as applicable to those unfortunates weak in intellect, not weak in faith (Barr, [1904b] 1913, p. 25), but he interpreted the Pauline dictum "Faith comes by hearing" to mean that "those who are born deaf are incapable of ever exercising the Christian faith, for they cannot hear the Word, and they cannot read the Word" (OSD, 1895, p. 12). Augustine's declarations effectively denied church membership to deaf persons; they were restricted from the celebration of mass, disallowed the sacrament of communion, and generally excluded because they were unable to express their sins. Until the twelfth century an express dispensation of the pope was necessary to authorize the marriage of a deaf person (H. P. Peet, 1851).

Augustine further paved a troubled route for other disabled groups when his opinions on miraculous healing were accepted by the Council of Toledo in the fifth century. The church fathers avowed that "demonic seizures can be cured only by miracles, whereas diseases . . . can also be overcome by human medical effort" (Veith, 1965). With this ruling, epilepsy and other nervous disorders ceased to be primarily viewed as bodily diseases in the Hippocratic convention, but instead fell totally within the purview of the church.

The Medieval Mind and Disability

By the mid-eleventh century a more settled world began to emerge from the troubled feudal society of Europe. Populations were growing, nomadic invaders had finally been repelled, commerce was expanding, and the cities were reviving after their long neglect. The church led in establishing the new tone of society; the Gregorian Revolution of the late eleventh century built on a revived papacy and focused on basic church reforms that eventually led to new centralized institutions. Secular society was quick to follow the lead of the church.

One might assume that when ecclesiastical thought more closely concerned itself with the social and political conditions of society, more help for disabled persons would develop. But those concerned with the creation of a whole society operating on moral principles ignored the exceptional or questioned their capacity for spiritual achievement and social responsibility. Church law discriminated against disabled individuals, and the conventions of secular society subjected them to unjust laws and treatment. The early legal code of nearly every European country imposed strict civil disabilities on handicapped people—they were deprived of the rights of inheritance, forbidden to testify in a court of justice, and not allowed to make a deed, contract, note, or will (see Gaw, 1906).

With both crown and church disinclined to defend them and indeed often arrayed against them, disabled persons drew small regard and little compassion from the people around them. In the thirteenth century when Henry III of England found his small daughter, Catherine, to be deaf, Matthew Paris, a contemporary historian, described the child as "dumb, and fit for nothing, though possessing great beauty" (De Land, 1931, p. 14). Often disabled persons became the butts of crude humor, as we see in the 1425 tale of four blind men. Encased in full armor and armed with clubs, the men were placed in a square with a large

hog, a prize going to the one who could kill the animal (French, 1932). People were likely to interpret the behavior of mentally retarded persons as evil and their mutterings as conversations with the Devil. In sixteenth-century Hamburg, in Germany, for example, mentally retarded individuals were confined in a tower in the city wall, appropriately named the Idiot's Cage (Burdett, 1891).

Most disabled persons in medieval Europe seem to have led an insecure and precarious existence; only a scattered few were granted aid. There is no evidence of public support, but under the aegis of the church hospices to care for exceptional persons did develop, though painfully slowly. In the thirteenth century three hundred French knights captured by the Moslems had their eyes put out. After Louis IX ransomed them, he established the Hospice des Quinz-Vingts to care for the blinded soldiers. Inmates were provided an allowance from the privy purse provided they made soup for the poor. Illiterates and paupers were taken in but provided little training. This establishment later played a role in setting the direction of the education of the blind as well as establishing the pattern for future institutions for blind children and adults (see Farrell, 1956b; French, 1932; discussion of Haüy in Chapter 2, below).

Throughout medieval times varied attitudes to mentally retarded persons are evident. Some observers interpreted the mutterings of mentally retarded persons as dialogues with the devils, but others held them to be mysteriously connected with the unknown and their talk as evidence of divine inspiration (Barr, [1904b] 1913; Burdett, 1891). In some societies a house into which an imbecile was born was considered blessed of God (Barr, 1904b). And yet exploitation and ridicule was common. Following the tradition of the Romans, some lords granted mentally retarded people the freedom of their castles to serve as household fools. Pope Leo X was said to have retained a number of mentally retarded dwarfs to serve as entertainment (Hibbert, 1975).

As the Middle Ages drew to a close, the feudal order slowly gave way to political absolutism and the national state, and new urban social groups arose. Plagues and the disruptions of social change and urbanization created a pervasive pessimism; discontent within the monolithic church mounted. There developed a widespread sense that all of Christendom was sick, and the world seemed to be falling apart. A new order, the outlines of which could be seen but dimly, was struggling to emerge.

The medieval Christian commonwealth, fashioned and guided by the church of Rome, was wracked by dissension, hatred, and violence. Abuses within the church led many to a desire to return it to its original state, to lend it new life, a process begun as early as 1095 when Pope Urban II called the First Crusade. A little later, in 1150, the church embraced the doctrine of original sin (Durant, 1950, p. 820), which meant that from then on Christians viewed themselves and all humans as inherently evil, saved only by the grace of the good God.

Medieval life was further disrupted in the fourteenth century by the appearance of the Black Death, also called the pestilence or the Great Mortality. Beginning in Central Asia, the plague spread outward to reach the heart of Europe around 1348. This was not the first or only plague to attack Europe, but it was one of the most virulent. It is estimated that between 1347 and 1351 in the whole of Europe, about 25 million persons, as much as one-third of the population, were lost (see Slack, 1985; Zinsser, 1935).

In the face of devastating plague, humans stood helpless and terrified, trapped by a peril against which they had no defense. Responses to the crisis were often extreme. In the early days of the Black Death, mental derangement was obvious in the behavior of those belonging to the sects of flagellants and of those in some parts of central Europe who were caught up in the dancing manias. All who were deranged, whether as a consequence of the disease itself or of the terror it inspired, were prime candidates for the witch hunters who were just beginning to fan out on their grisly search across the Continent. Many believed that the sins of Adam, cast upon his children, was what brought death and dissension to life. With so much evil in the world, apocalyptic thinkers predicted that God would destroy the world and substitute a new one for the old. The final struggle of Armageddon would be between the hosts of Christ and the hosts of the AntiChrist.

Belief in the power of the Devil grew, and his might appeared capable of overthrowing the church and with it, all existing order (Rosen 1968). As awareness of the Devil and his powers was carried to new and terrifying heights, the search for the Antichrist assumed dreadful proportions. By the late thirteenth century conceptions of Armegeddon, of pervasive evil, and of social chaos slowly fused into the intertwined threads of the Inquisition and the prevailing stereotypes about heretics.

As dissension within the church and disruption everywhere assumed alarming proportions, society and the church increasingly proclaimed heresy to be rampant. People believed that the extermination of the agents of the Antichrist was a prerequisite for the salvation of all humanity, and a popular movement arose as church, state, and indeed all of European society demanded the suppression of heresy. Medieval churchmen invented a grotesque ideology, which came to be massively embodied in the Inquisition, of an evil unity between heresy, sorcery, and witchcraft. It was the belief of the church that heretics were the authors, the patrons, and the objects of witchcraft. Hence, the witch hunts grew out of the hunt for heretics, just as the witch trials evolved out of the trials for heresy (Rosen, 1968).²

By 1484 Pope Innocent VIII declared open war on witches. Then in 1487 two Dominicans, the chief inquisitors for Germany, a center of intense witch hunting, produced the notorious *Malleus Maleficarum* [The hammer of witches], which provided intimate details of the habits and characteristics of witches. It served as well as a manual of procedures and theory for witchcraft trials. By the time Martin Luther posted his ninety-five theses to a church door in Wittenburg (1517), Europe already possessed excellent descriptions of witches, and all Europe seemed to swarm with them (Rosen, 1968). Many believed that a preternatural dominion of the earth was exercised by old women and widows, and by any person who was unusual, different, deviant, or, no doubt, disabled.

Until the eighteenth-century Enlightenment, European civilization was haunted by the idea of witches. Witch hunting was prosecuted with vigor; for

²The witch hunts in their various manifestations have received intense attention from scholars. Herein, my concern is with but one facet, the implications for disabled people. On the witch hunts in general see Anglo (1977); Estes (1984); MacFarlane (1970); E. Midelfort (1968); H. C. Midelfort (1982); Monter (1972, 1977); Thomas (1971); Trevor-Roper (1969).

almost three centuries Europe and its overseas colonies were the sites of organized witch hunts. The hunts and the trials led to the deaths of hundreds of thousands of people by burning, hanging, drowning, or other methods. The full count of victims of the witchcraft mania cannot be calculated; the likeliest guess is that the total number of trials exceeded 100,000 and the number of executions was below this number (Monter, 1977). Witchcraft became the most important capital crime for women in early modern Europe; perhaps 80 percent of the accused were women.³

How many disabled persons were accused or perished is unknown; that they were implicated seems beyond question. Much earlier, Saint Augustine had included madness and epilepsy within the domain of the religious authorities. Now the *Malleus* prescribed measures to differentiate witches from normal persons: "If the patient can be relieved by no drugs, but rather, seems to be aggravated by them, then the disease is caused by the devil" (quoted by Alexander and Selesnick, 1966, p. 68). One treatise on exorcism asserted that symptoms of possession were obvious in those feigning to be mad, or those who became deaf, dumb, insane, or blind (Bromberg, 1975). Another expert enumerated the signs that indicated possession and included diseases that doctors could not diagnose and treat (Bromberg, 1975). With many handicapping conditions such as deafness, retardation, insanity, and epilepsy already linked by tradition to the supernatural and unamenable to medieval medical treatment, the consequences for disabled individuals of assertions like these from the authorities must have been devastating. Take a case reported by Ambroise Paré, a medieval surgeon who treated a young nobleman who suffered "convulsions that involved different parts of his body such as the left arm, or the right, or on occasion only a single finger, one loin or both, or his spine, and then his whole body would become so suddenly convulsed and disturbed that four servants would have difficulty in keeping him in bed" (quoted in Bromberg, 1975, p. 48). It was discovered that the Devil, forced to reveal himself by means of religious exorcism, caused this malady. Many of the people put to death for witchcraft were likely not possessed by satanic spirits at all, but instead may have been the victims of neurological or emotional disorders (D. H. Tuke, 1882).

Mentally ill persons were turned over to the clergy and the secular powers, who combined to punish the "agents of the devil" by burning them at the stake or otherwise disposing of them. Mentally retarded people may have also fallen into the witch hunters' net. Scheerenberger (1982) states that during the Inquisition some mentally retarded individuals were executed, either because they were perceived as being the offspring of witches or because their own behavior seemed bizarre or threatening.

John Calvin preached that mentally retarded persons are possessed by Satan; Martin Luther was of the opinion that a mentally retarded child is merely a mass of flesh (*massa carnis*) with no soul (Kanner, 1964). Luther further subscribed to the belief that the Devil is the father of idiots; he denounced the mentally handicapped as "filled with Satan" (Barr, [1904b] 1913, p. 26) and even suggested that one child be taken to the nearest river and drowned (Kanner, 1964).

³On the gender bias of the witch hunters, see Quaife (1987).

It is also possible that handicapped people or the parents of handicapped children would attribute a disorder to witchcraft as a last resort, when prayers or medicines had failed and exorcism seemed the last hope of a cure. Sawyer (1989) points out that witchcraft lies at the intersection of the biological, existential, and social worlds of the infirm. Of all the afflictions attributed to witchcraft, none was more common among adults than disturbances of the mind; the next largest category among children and adults was lameness with a chronic wasting away of the body or limbs that boded permanent disability and probable death (Sawyer, 1989). When the onset of a disorder was sudden and unexpected, or when naturalistic medicine offered little or no relief, then witchcraft might well have seemed an unavoidable alternative.

The response to witch hunting included dismay and disagreement from many quarters throughout the course of its unhappy history, and it must not be assumed that the ideas embodied in the *Malleus* received universal assent (Teall, 1962). However, it was not until the late seventeenth century that the light of reason began to drive the long prevalent beliefs in witchcraft underground.

DISABILITY IN A MORE HUMANISTIC WORLD

The witchcraft mania, indeed, many forms of superstition, actually began to subside in the liberal atmosphere of the Renaissance, which brought about new knowledge in medicine and psychiatry, and, in all fields of learning, as well as unprecedented activity in exploration and colonization. Philosophers in the sixteenth and seventeenth centuries scrutinized the old shibboleths and fostered an increased skepticism. Adventurous thinkers, those of a liberal turn of mind and novel ideas, spoke against witch hunts and their trappings.

For example, Gironimo Cardano, an Italian physician of the sixteenth century (see Box 1-2), not only railed against witch hunting but proposed some of the earliest known measures for special education. Witchcraft as a crime gradually faded from the European scene. In England, for example, the penal laws against witchcraft were repealed in 1736. As witch hunts became less frequent and the very existence of witches came into question more often and more openly, the safety of disabled people increased, and their lives became somewhat less precarious.

The experience of handicapped people in medieval times was not a tale of unmitigated hardship, deprivation, isolation, and gruesome witch hunts. Even as some fanatics pursued the swarms of witches they imagined were polluting daily and ecclesiastical life, others, following more humanistic impulses, pursued ideas more in tune with emerging Renaissance thought.

Primarily an Italian experience, the Renaissance began in the fourteenth century and reached its height in the fifteenth and sixteenth centuries. With the movement arose a new interest in humanistic principles, individuality, learning, and the secular arts. Humanism in art led to a more intense focus on the human body and so to the development of more sophisticated surgery and medical practices. The age-old fear of dissecting the human body subsided, and the fields of anatomy and physiology enjoyed a period of vigorous development. The ear, for example, one of the smallest and most complex organs of the body,

Box 1-2

Gironimo Cardano (1501–1576)

New philosophies wrought by the many social and intellectual changes of the Renaissance began to burn away the mists of superstition and fear and to lead away from the medieval reliance on supernatural explanations for any phenomenon. One of the liveliest speculative thinkers of the Renaissance was Gironimo Cardano (in English, Jerome Cardan), the illegitimate son of a lawyer who rose to become the rector of Padua University, the leading medical facility in Europe. A genius, a physician by profession, a mathematician by natural taste and talent, Cardano is sometimes described as the first psychiatrist. He railed against the obscenities of the witch hunts; as early as 1550 he described those called *vulgarly stigae* as miserable, beggarly old women, and attributed their unusual or aberrant behavior to poverty, hunger, and hardship.

When one of his sons was found to have defective hearing, Cardano was drawn into philosophical speculation about the potentialities of disabled individuals and methods for their education. He disregarded Aristotelian imperatives and, adopting principles that would characterize the empirical psychology of John Locke a century later, was probably the first to see the true relationship among the senses. He believed that the instruction of the sensorily handicapped was possible (Monroe, 1926) and surmised that it would be successful through the use of alternative stimuli.

It would be possible, assumed Cardano, to teach the blind by means of feeling, and so he devised a sort of Braille code. He also held that "the instruction of the deaf is difficult, but it is possible" and further reasoned that "writing is associated with speech, and speech with thought," so therefore "written characters and ideas may be connected without the intervention of sound" (quoted by Monroe, 1926, p. 257). Although Cardano elaborated a sort of raised print code for the use of deaf people, he did not essay a practical application of his theories. Nevertheless, his statements mark a turning point in attitudes toward sensorily deprived persons (see Hodgson, [1952] 1973).

was examined and its basic mechanisms traced. Two Italian anatomists made important discoveries about the structure of the ear: Gabriello Fallopio (1523–1562) described the bony labyrinth of the ear, and Bartolommeo Eustachio (1524?–1574) identified the tensor tympani muscle and the Eustachian tube (Hodgson, [1952] 1973). Others added to the understanding of the ear: Costanzo Varoli identified the stapedius muscle in 1570, and Aquapendente described the function of middle ear muscles in 1598.

At the same time, the invention of printing resulted in a wider dissemination of knowledge and a surge in the spread of literacy. More books were produced during the half-century after Johann Gutenberg's press began operating in the

1450s than were likely to have issued from all the scriptoria of Europe and the Roman Empire since the first years A.D. Literacy grew rapidly (Bromberg, 1975). Moreover, the availability of reading materials motivated efforts to understand the mechanics of the visual system and to seek ways of improving sight for reading. Legend claims that eye glasses were invented by Saint Jerome (340?–420), perhaps because Jerome was the most notable student of Didymus (308–395), the blind scholar of Alexandria. Whoever the inventor may have been, spectacles began to appear in Italy in the fourteenth century and were in common use by the sixteenth.

The State of Medicine

Medieval society was not a medical desert; it was replete with empirics or quacks, divines, parsons, and magicians, as well as responsible physicians. From the thirteenth century on, these practitioners created a mixture of the rational and the unreasoned in a body of medical literature that described an enormously wide range of disabling conditions and their cures. A science of medicine emerged slowly, although Renaissance anatomy, physiology and medicine continued to draw from the notions of Hippocrates, Celsus, and Galen, often grafting onto these occasional bizarre notions taken from religion and demonology to construct its understanding of the etiology and treatment of disease. Anatomy and physiology were not exact sciences, and the treatments proposed for epilepsy, madness, and sensory impairments often amounted to nothing more than incantations, spells, and witches' brews, in short, little more than quackery.

Bromberg (1975) offers insight into Renaissance medicine with a glance at the table of contents of one medical treatise, Karl F. Paullini's *Flagellum salutis* [From sickness arises health] (1698). Paullini dealt with "the usefulness of voluntary beatings in many diseases of the head; Beatings in meloncholia; in frenzy; in paralysis; in epilepsy; in facial expression of feeble-minded; in hardness of hearing; in toothache; in dumbness; hysterical crying; in nymphomania" (original punctuation, quoted by Bromberg, 1975, p. 53).

Epilepsy particularly was subject to a wide range of treatments. The condition drew considerable attention from Hippocrates, Celsus, and Galen, and during the Middle Ages its importance is testified to by its inclusion in nearly every medical treatise concerning children (see Zilboorg and Henry, 1941). Considered a particularly virulent manifestation of madness, epilepsy was long thought to abate under the influence of blood, the most important bodily humor. The Romans lined their epileptics up at the Forum to drink the supposedly curative blood of slain gladiators. Cures of the Middle Ages were little more appealing. One involved the consumption of "the brain of a mountain goat drawn through a golden ring." In another, the afflicted person could ingest "the gall still warm from a dog who should have been killed the moment the epileptic fell in the fit" (D. H. Tuke, 1882, p. 8). The Scots suggested that the sacrifice of a live cock would benefit epileptics, probably with the passage of the evil spirit from the afflicted person to the cock. To carry out the cure it was suggested: "On the spot where the patient falls, the black cock is buried alive, along with a lock of the patient's hair and some parings of his nails" (D. H. Tuke, 1882, pp. 20–21).

For those manifesting “idiocy and folly” the cure consisted of putting “into ale cassia, and lupins, bishopwort, alexander, githfife, fieldmore, and holy water, then let him drink” (D. H. Tuke, 1882, p. 4). For “mad and furious men” one treatment echoed Celsus—the black hellebore of the Christmas rose “purgeth all melancholy humors” (D. H. Tuke, 1882, p. 31).

Attempts during the Middle Ages and Renaissance to alleviate hearing problems were varied. One treatment forced deaf persons to shout so loudly that blood flowed from their mouths, in order to awaken their latent hearing (Hiedsieck, 1898). In other treatments, the occipital bone was struck hard enough to fracture it, in the hope that the blow might shake something loose (Hodgson, [1952] 1973). Sufferers from earaches were advised to drop the juice of a baked onion in the affected ear or to plug the ear with lint saturated with laudanum (Kile, 1916). Or they could take “Earth Wormes and fry them with Goose-grese, and drop a little thereof warme into the Deafe or, pained eares” (“Cures,” 1926, p. 393). Cases of infection were treated with a white-hot iron applied to the mastoid, or the burning of a cottony material in contact with the skin from the back of the neck around to the chin in order to draw off the pus and “feculent humours” (Hodgson, [1952] 1973; “On attempted,” 1851, p. 244).

More benign cures, if not more effective ones, began to appear in British periodicals in the seventeenth century. Jean Paul Seigel (1969) relates the story of a reader of the *British Apollo* who observed that normally he had to speak as loud as he was able in order to communicate with his deaf friend. But when riding in a coach with him on stone, the friend could hear distinctly every word he said. *Apollo* explained: “we shall impute the Cause of this Gentlemen’s Deafness to a vitiation or laxity of the Drum of the Ear. Now, by the Impulse of the continu’d and more Vehement Sound, This Thin Membrane or Drum is Enforc’d to its due Extension, and is thereby in some measure Enabled to Perform its Proper Office” (quoted in Seigel, 1969, p. 102).

Institutionalization

Antiquity had no institutions for the care of disabled or indigent persons, and the early Christian era saw only scattered hospices and asylums established across Europe beginning in the fourth century. Public institutionalization for health problems developed between the sixth and the thirteenth centuries when leprosy became a major health concern. Leprosariums multiplied—there were perhaps as many as 19,000 throughout the Christian world (Foucault, 1965).

As the leprosy epidemic in Europe began to subside at the beginning of the seventeenth century, many of these institutions were converted, especially to the needs of those who were considered insane. Early medieval society made no effort to conceal the insane and mental defectives from public view. They were a visible part of everyday society, and, by and large, community attitudes toward these individuals were a compound of fear and contempt, mingled to a lesser extent with an element of compassion (Rosen, 1968). Insane persons occupied a special place in society; they were seen as outcasts characterized by disorder and incoherence, particularly the most dangerous among them, namely, the frenzied, the angry, the threatening, and the maniacal (Doermer, [1969] 1981).

Though many outcasts wandered freely through the squalor and cruelty of the late Middle Ages, society eventually reached the point where it could no longer tolerate the potential dangers posed by the insane. Converted leprosariums became the focal points of a complex of institutions, variously termed madhouses, bedlams, or lunatic hospitals. Rarely were these places named *asylums*—this gentler term was generally reserved for places of protection, retreat, and shelter, which little resembled the realities of seventeenth-century madhouses. It was not until the late eighteenth century that the word *asylum* was used to describe a hospital for lunatics.

Institutions do not exist in a vacuum, nor do they arise without precedent. The practice of confining mad people and other exceptional persons that became widespread in the mid-seventeenth century constituted a response to both their higher visibility in society and the perceived need for society to protect itself against the harm that the deviant, the defective, or the dependent person might incur. Witch hunters had not managed to exterminate all of society's troubling elements; now alternative methods were sought, and the confined congregate institution seemed a logical solution. Unlike the monasteries and hospices that arose to save handicapped persons from a vile world, the institutions that developed from the early seventeenth century served to protect society from the physically, intellectually, and socially deviant and dependent persons in its midst.

The early lunatic hospitals housed many more people than just those who were mentally ill; about 10 percent of the inmates, on the average, were labeled as insane. The lunatic hospitals also incarcerated heretics, social dissidents, and others who threatened the established order without actually committing any crimes. Beggars and vagabonds; those without property, jobs, or trades; political gadflies and heretics; prostitutes; libertines, syphilitics, and alcoholics; idiots and eccentrics; rejected wives, deflowered daughters, and spendthrift sons—could all be incarcerated and thus rendered harmless and virtually invisible (Doermer, [1969] 1981).

In London the Hospital of St. Mary of Bethlehem, first established in 1247, arose again in 1676 from the ashes of the Great Fire (Byrd, 1974) to become a major lunatic hospital. The name quickly degenerated into the nickname "Bedlam," which eventually became a generic designation for any lunatic hospital and has come to mean any noisy chaos.

Similar centers were established in Paris in 1630 under the tutelage of Saint Vincent de Paul (1581–1660). Cardinal Richelieu had begun to turn the ancient chateau of St. Lazare into a military hospital but ceded the property to Vincent de Paul, who gathered there the homeless, the outcast, and the feeble in mind and body. Bicêtre, as the institution soon came to be called, rapidly assumed the character of a congregate institution (large, multicelled) with entrance criteria based solely on need. Vincent de Paul also obtained the property known as Salpêtrière, which the government later managed as a house for beggars. By the eighteenth century Salpêtrière had become the women's lunatic hospital, Bicêtre the men's (see Ireland, 1877).

Callous treatment was the hallmark of all early lunatic hospitals. In England prescriptions for "the curing of Mad people" were based on "their reverence or standing in awe of such as they think their Tormentors." It was believed that

"Furious Mad-men are sooner, and more certainly cured by punishments, and hard usage, in a straight room, than by Physick or Medicines." Hence, overseers were advised to "Let the diet be slender and not delicate, their clothing coarse, their beds hard, and their handling severe and rigid" (quoted by Doermer, [1969] 1981 p. 26).

Whether to raise funds, to illustrate the potential rationality of the disabled, or simply to titillate a curious public, those whose responsibility it was to care for exceptional people exhibited them to the public in a variety of contexts, a practice that persisted until the close of the nineteenth century. Indeed, the exhibiting of deviance and disability in their various forms for money can be traced to the first lunatic hospitals, where inmates were shown as caged monsters to a paying populace (Doermer, [1969] 1981). City folk, searching entertainment, flocked to see the lunatics and their antics. For a few pennies' admission, Londoners could visit Bedlam on a Sunday and promenade past cells arrayed like a circus sideshow (Byrd, 1974). So popular were the lunatic exhibitions that contemporary accounts from London, Paris, and various German cities tell how they vied for audiences with animal acts (Doermer, [1969] 1981).

Educational Advances

The gathering humanistic and philosophical spirit of the Renaissance flowered into genuine educational attempts that, though nascent and primitive, demonstrated that disabled persons could learn and achieve. Some of the major principles that were to guide special education were established during the late Renaissance period. It was deaf persons who were first granted consideration in educational contexts, followed by blind, and, much more tardily, mentally retarded people. Closely linked to this progression was the philosophical precept that underlay special education at its founding. Teachers, writers, and philosophers based their interventions on the belief that discovering the manner in which deaf persons learned, especially the way in which they acquired language, would provide a key to the history of thought and of humankind in general.

The Beginnings in Spain

However, it was Spain, not Renaissance Italy, that spawned the first authenticated special educational efforts, and it was fiscal considerations, not philosophy, that provided the immediate motive for this first attempt. From the Benedictine monastery of San Salvador, near Burgos in northern Spain, comes the earliest evidence of formal and systematic instruction of any disabled individuals. A strong trait of hereditary deafness haunted Spain's ruling families. Under laws of inheritance that harked back to the Justinian legal codes, deaf boys could not claim their inheritance if they could not speak. Thus, the laws of inheritance that affected great estates became the educational spur for the establishment of the means to educate the deaf sons of Spanish aristocrats.

Pedro Ponce de León (1520–1584), a Benedictine monk, employing methods of his own devising, assumed the instruction of the scions of some of Spain's wealthiest families. Detailed descriptions of Ponce's methods are not available, but his own testimony and that of his pupils and impartial observers indicates that the lads learned to speak with facility. Apparently, Ponce "instructed the

boys in writing, then pointed out the objects signified by the written characters, and finally exercised them in the repetition of the vocal organs of the utterances which corresponded to the characters" (OSD, 1884, p. 10). In a legal document of 1578 Ponce detailed the advances of the boys under his tutelage:

I have had for my pupils, who were deaf and dumb from birth, sons of great lords and notable people, whom I have taught to speak, read, write and reckon; to pray, and assist at mass, to know the doctrines of Christianity, and to know how to confess themselves by speech; some of them also learn Latin, and some both Latin and Greek, and to understand the Italian language; and one was ordained, and held office and emolument in the Church, and performed the services of the Canonic Hours; and he also, and some others, arrived at a knowledge of natural philosophy and astrology; and another succeeded to an estate and marquisate, and entered the army, and in addition to his other attainments, as has been related, was skilled in the use of all kinds of arms, and was especially an excellent rider. And besides all this, some were great historians of Spanish, and foreign history; and, above all, they were versed in the doctrine, Politics and Discipline from which Aristotle excluded them. (Quoted in Mathison, 1906, p. 416)

To observers steeped in ancient prejudices, Ponce's achievements seemed miraculous, but his own reports hold a great deal of colorful exaggeration. Moreover, as Susan Plann (1991) argues, Ponce's work was less of an "astounding cognitive leap" than an astute application of the sign language he and his brother Benedictine monks used daily. Ponce's great achievements may not have been teaching speech and language to the deaf boys but more his recognition that disability did not hinder learning and his use of alternative stimuli, in this case, sign language. Most importantly, perhaps, Ponce de Leon was the first successful special educator, and 1578 the year in which special education truly began.

The Constable of Castile had a deaf younger brother, so it is not surprising that the constable's secretary, a former soldier named Jean Pablo Bonet (1579–1629), continued the work, assisted by Ramirez de Carrion. Whereas Ponce used conventional signs but not fingerspelling or speechreading, Bonet added a manual component, employing a methodology that incorporated a hand alphabet, signs, writing, speech, and a stress on lipreading, which, he claimed, could not be taught but only acquired through concentrated attention (Lane, 1976). To stimulate and teach speech, Bonet suggested the use of a flexible leather tongue to imitate the positions of the living tongue (Seguin, 1876).

In 1620 Bonet published the first practical treatise on the art of teaching the deaf, his *Simplification of the Letters of the Alphabet, and a Method of Teaching Deaf Mutes to Speak* (see H. P. Peet, 1850). Bonet's work did not appear in English until 1890; only coincidence and good luck sent a version to London by a circuitous route in 1644.

The British Pioneers

Sir Kenelm Digby, son of one of the Gunpowder Plot conspirators, visited Spain with the Prince of Wales, later Charles I, in 1623 and met one of Bonet's

pupils, Luis de Valesco. In exile in Paris in 1644, Digby wrote *Treatise on the Nature of Bodies*, in which he recounted the unprecedented accomplishments in Spain with the deaf (see Digby, 1665, 1827). Through his close correspondence with John Wallis on philosophical subjects, Digby presented the Spanish accomplishments to a small British audience avidly searching for new lines of philosophical inquiry. Over the following half-century Bonet's work guided and inspired a quintet of British works on the nature of language, the elements of speech, and practical methodologies for teaching deaf persons.

In seventeenth-century England philosophical inquiry rather than pragmatic considerations underlay early designs for intervention with disabled individuals. Philosophers, avidly probing the origin and development of language, recruited deaf people as objects of study. Blind people were also studied. The philosophers wished to discover whether a person who had never seen could, if sight were suddenly restored, recognize through vision what had previously been learned by touch.

The Royal Society of London, an organization of thinkers and scientists, gained a royal charter in 1662 with an informal mandate to find "histories of phenomena," the universal and natural "history of things."

Paralleling the quest for a universal history was a desire for a universal language, frequently marked by a demand for a dictionary of words to provide accuracy and precision to the language. Calls for a universal language, first heard in the mid-seventeenth century, echoed again and again across the next three hundred years, always to the ultimate advantage of deaf persons. For example, the search was continued in the next century by such redoubtable characters as John Cleland, who wrote the immortal (or immoral) *Fanny Hill* to finance his elusive search. And as we shall see, in the nineteenth century Alexander Melville Bell's quest for a universal alphabet altered the education of deaf children for nearly a hundred years.

With their strong emphasis on language, it is little wonder that members of the Royal Society issued so many studies of deafness; examples are those undertaken by William Holder, George Dalgarno, John Bulwer, and John Wallis. Their purpose was to learn from deaf persons the secret of what people were like before language, what their ideas were before being filtered and shaped by conversation. These philosopher-scientists elucidated their work with deaf children and adults in philosophical papers written for the society: Wallis's *De loquela* (1653) and "A Letter to Robert Boyle Esq." ([1670] n.d.); William Holder's *Elements of Speech* ([1699] 1967); George Dalgarno's *Didascalocophus* ([1680] 1971); and George Sibscota's *Deaf and Dumb Man's Discourse* ([1670] 1967). These were chiefly philosophical treatises concerning the nature of language that contained elaborate analyses of the different elements of speech. The teaching of deaf people was used to illustrate the new theories that were beginning to take hold. Some, depending on the bent of the author, stressed the acquisition of artificial speech (Mathison, 1906). The reports of these pioneers thus hold interest today chiefly as early instances of educational efforts; they did not represent advances in the comprehension of the psychology of deafness. Most of the members of the Royal Society interested in deafness were dilettantes who had little or no insight into the epistemological and psychological complexities of deafness (Seigel, 1969). In concert with notions prevalent since

the days of Hippocrates, they viewed deaf people as curiosities and were more often concerned with speculations of the physiological causes and cures for deafness than with the psychological, social, and educational applications of their findings.

John Wallis (1616–1703), a professor of geometry at Oxford and one of the founding members of the Royal Society, was the most influential British authority on deafness in the seventeenth and eighteenth centuries (Hoolihan, 1985). As an internationally respected mathematician, a prolific author, a correspondent with some of the best minds in Europe, and one of the greatest of Newton's English precursors (Hoolihan, 1985), Wallis's reputation in his own and later ages was such that he exerted a profound influence on the nascent field of special education.

Wallis's *Grammatica linguae anglicanae. Cui praefigur, De loquela sive sonorumm formastione, tractacus grammaticophysicus* was a grammar of the English language for non-English speakers printed at Oxford in 1653 and written in Latin. Prefaced to the *Grammatica* was a treatise of particular importance to the education of deaf persons. Wallis's "De loquela" [On speech] described the organs of speech and the nature of voice; it also presented a detailed analysis of the phonetic elements of English pronunciation, which was useful, according to the author, to foreigners and deaf people.

When Wallis assumed the instruction of twenty-five-year-old Daniel Whalley in 1661, "De loquela" served as the basis for his teaching. Wallis attempted to make Whalley understand the structural elements of language, that is, "to teach him to understand the significance of words and their relations" (OSD, 1884, p. 11). Wallis relied on instruction in written language, and then he used some method of signs for speech, most likely a hand alphabet designed by his friend and contemporary George Dalgarno (1626–1687), which Wallis appropriated without credit (AADD, 1850). To stimulate speech, Wallis showed Whalley how the organs of speech moved for specific sounds so that the student "may, by art, pronounce those sounds, which others do by custome" (Wallis, [1670] n.d., p. 1089). So proficient did Whalley become that John Wallis presented him before the Royal Society to demonstrate his speech ability, which he did, "though not elegantly, yet so as to be understood" (OSD, 1884, p. 11).

William Holder (1616–1698), musician, clergymen, fellow of Royal Society, and brother-in-law of Christopher Wren, also taught deaf students through the use of a finger alphabet and stylized signs. George Dalgarno (1626–1687), brought to deaf education original conceptions that anticipated some of the methods that are used even today (see Dalgarno, 1971). Sensing that language development required early intervention, Dalgarno suggested that mothers and nurses could make "successful addresses" to the dumb child if "the mother or nurse had but as nimble a hand as they usually have a tongue" (quoted by A. G. Bell, 1884b, p. 32).

Unlike Holder, Wallis, and Dalgarno who instructed individual deaf persons, John Bulwer was a theorist who pointed out safe routes for other teachers to follow. Bulwer preceded Wallis by producing in 1648 the first English work in deafness, *Philocophus* [The deaf man's friend], which he dedicated to Sir Edward Gosticke, a deaf and dumb gentleman who knew signs and fingerspelling but who wanted to learn to speak. In 1654 John Bulwer published a companion vol-

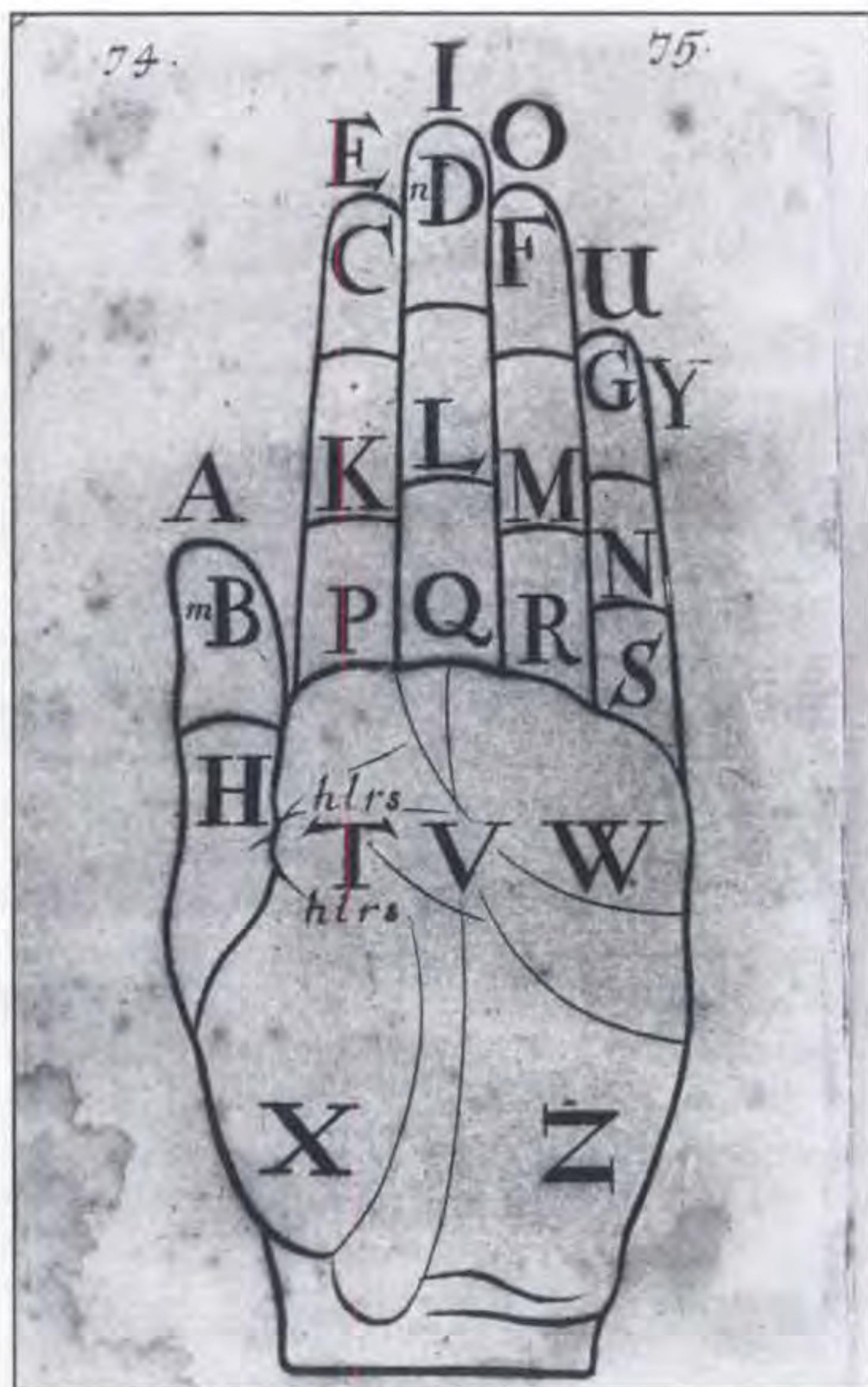


Figure 1-1 Diagram of Dalgarno's glove.
Photograph courtesy of the Gallaudet University Archives.

ume, *Chirologia, or, the Naturall Language of the Hand* ([1654] 1975). Bulwer's stress was not in the acquisition of artificial speech but in finding means to overcome, or at least accommodate to, the handicap of deafness. Rejecting the Hippocratic dictum that there existed a common site in the brain for hearing and speech, Bulwer argued that "the truth is they speak not, because they cannot hear" (quoted by Farrell, 1956a, p. 6). And, as Bonet had done earlier, Bulwer emphasized the value of lipreading: "a Man Born Deaf and dumbe," he stated, "may be taught to Heare the sound of words with the Eie" (Bulwer, 1648, preface).

Even more startling was Bulwer's petition for "an academy for the mute," possibly the first time that anyone had suggested special schooling for a disabled group. But the ramparts of entrenched superstition were as yet unassailable, as Bulwer "soon perceived by falling into discourse with some rationall men." The design, he wrote, appeared "so paradoxicall, prodigious and Hyperbolicall, that it did rather amuse them than satisfie their understandings" (quoted by J. C. Gordon, ed., 1892b, p. xx), it being the prevailing opinion that

"original deafness and dumbness is not curable but by miracle" (quoted by Mathison, 1906, p. 414).

As the British philosophers and teachers labored to discover causes and cures for deafness, their efforts touched the lives of very few deaf people. However, in 1720, the year following the publication of *Robinson Crusoe*, Daniel Defoe made the hero of one of his tales a deaf man. *The Life and Adventures of Mr. Duncan Campbell* was based on a real person, a deaf seer who had captivated London society. In this first popular exposé of the problems of deaf people, Defoe pointed out that "a great many more believe it impossible for persons born deaf and dumb to write and read" (Defoe, [1720] 1903, p. 43), a myth he punctured by interweaving the pedagogy of John Wallis with his tale of Duncan Campbell.

Henry Baker (1698–1774), naturalist and a fellow of the Royal Society, read Defoe's book (and married his daughter, Sophia) and thus learned about the methods of Dr. Wallis there enumerated. Baker's interest in deafness and its implications originally developed when he visited a relative who had a deaf daughter. Jane Forester was Baker's first pupil. After succeeding with her, he became a visiting teacher; he had no school, but lived with his pupils (Oxley, 1930). Baker was very secretive, so much so that he extracted securities for as much as £100 from pupils not to disclose his methods. He took only those pupils with whom success was assured and, as the work soon became his sole livelihood, Baker is remembered more as the first professional teacher of deaf persons than for any methodological or psychological insights.

Oral Methodologies

Almost since its inception the education of deaf people has been marred by divisive controversy concerning the most appropriate modes of communication. One school, that of the manualists, views deafness as a human difference, deserving its own unique language that would circumvent the major deficits of hearing impairment. The opposing faction, the oralists, sees deafness as a handicap that can, and should, be overcome if deaf people will assume normal positions in society. Although the controversy regarding communication methods reached its most divisive pitch in late-nineteenth-century North America, the seeds of the debate were unwittingly sown by the pioneers of the seventeenth century.

As the British teachers all employed methodologies reliant on finger alphabets, possibly combined with stylized sign languages, a contrasting pedagogy arose in Europe. John Conrad Amman and Franciscus Mercurius endeavored to maintain the primacy of spoken language; they "made the essence to consist of the artificial restoration and use of the voice" (Mathison, 1906, p. 420).

John Conrad Amman (1669–1724), a Swiss doctor of medicine who emigrated to the Netherlands, was fascinated by the problem of language development, especially what he saw as its mystical and divine origin: "the Voice," he cried, "is an Emanation from that very Spirit, which God breathed into Man's nostrils, when He created him a living soul" (Amman, [1694] 1972, p. 6). Echoing Aristotelian imperatives, Amman held that speech was a mysterious gift of God and the only means for the expression of language, which led him to develop an

extravagant estimate of the importance of oral language and of its absolute necessity in the cultivation of the intellect (Rae, 1848c). Amman asserted that speech that "is performed by signs and Gestures" is "base and deficient" (Amman, [1694] 1972, preface), and he bemoaned the "miserable... condition of those deaf individuals compelled to employ such modes" (Amman, [1694] 1972, p. 4).

Beginning with Baker and Amman, it became characteristic of those who were developing methods to impart speech to deaf persons to guard their pedagogy closely; it was equally characteristic of manual promoters to share their methods with all comers. Amman cloaked his methods in secrecy and, although he published two influential books, *Surdus loquens* [The talking deaf man] (1694) and *Dissertatio de loquela* (1700), they revealed much of his philosophy but merely a taste of his pedagogy (Amman, [1694] 1972, [1700] 1873). As Édouard Seguin (1876a) pointed out, Amman's books fail to delineate how he "developed the minds and hearts of his pupils" or even how he applied speech to other teaching. All we know is that Amman encouraged perfect articulation through the use of touch and a mirror, teaching the vowels first, and insisted that his pupils be "neither too young nor too stupid" (Amman, 1873). Nevertheless, Amman's philosophy, with its extravagant estimate of the importance of speech, introduced a line of reasoning that was fundamental to the formulation of oral methods of deaf instruction and that, from the first, exerted a leading influence in Germany (E. A. Fay, 1874).

Franciscus Mercurius, the Baron van Helmont (1614?–1699), a Belgian chemist and oculist, produced less impact on the developing field of the education of deaf persons; in fact, the peculiar bent he adopted is more curious than valuable. Van Helmont believed in a metaphysical origin of language and theorized that Hebrew was the natural language of humanity. He demonstrated how the shape and character of each letter of the alphabet in Hebrew conformed to the position of the organs of speech when making the sound (Bender, 1970; E. A. Fay, 1875). In pursuit of his firm conviction that the Hebrew tongue was superior to all other languages, van Helmont instructed deaf students in Hebrew (AADD, 1875, p. 172). Their progress in language is unknown. Van Helmont was also interested in the insane and recommended submersion in water as the cure, but again, the patients' progress toward rationality is unknown.

The establishment of the Royal Society and the speculations of its members, the early attempts to unravel the mysteries of the human body and the senses, and the first attempts to instruct persons handicapped by deafness, all signaled a new, emergent attitude toward exceptionality. In the age of enlightenment to come, new hope for all forms of exceptionality would flourish.

Chapter 2

Education and Enlightenment: New Views and New Methods

Chronology of Landmark Events in the Education of the Disabled Population

- 1690 John Locke publishes his *An Essay Concerning Human Understanding*
- 1745 Jacob Rodrigue Péreire begins his work with deaf students
- 1749 Denis Diderot publishes his study on blind people
- 1751 Diderot publishes his study on deaf people
- 1760 Abbé Charles Michel de l'Épée founds a school for deaf children in Paris
- 1762 Jean Jacques Rousseau's *Social Contract* is published
- 1784 Valentin Haüy establishes a school for blind children in Paris
- 1789 Abbé Roche Ambroise Cucuron Sicard takes over the Paris school for deaf children; the French Revolution erupts
- 1790 Schools for deaf and blind people combined under Sicard
- 1791 First British school for blind people opens
- 1792 William Tuke's Retreat near York opens; first British charity school for deaf children opens
- 1793 Philippe Pinel intervenes in cases of insanity at Bicêtre
- 1800 Jean Marc Gaspard Itard begins to work with the feral boy Victor
- 1810 Jean Étienne Dominique Esquirol succeeds Pinel at Salpêtrière
- 1825 Public hospitals for insane people open in Britain
- 1826 G. M. A. Ferrus opens a school for mentally retarded people (idiots) at Bicêtre
- 1841 The first public school for mentally retarded people (idiots) opens at Hospice des incurables de la rue St. Martin in Paris
- 1842 Édouard Seguin assumes leadership of the Bicêtre school

- 1846 First British public institution for mentally retarded people is founded
1848 Seguin emigrates to the United States

It was not until the middle of the eighteenth century that Britain and Europe turned to the education and training of their disabled populations. Onto the empty stage of special education stepped the pioneers—brilliant, innovative, often controversial and erratic philosophers, physicians, and pedagogues—who fashioned a new era in human history and paved the route that other educators could follow. Within the context of the broad intellectual movement known as the Enlightenment, they nurtured and reared the seeds sown in the previous century.

France was the crucial place; the period beginning about 1740, the critical time. The French *philosophes* (loosely defined as those who were intellectually involved in the Enlightenment) assumed the natural goodness of humans, and they erected on that base a conception of an ideal society that would protect everyone's natural rights. The intellectual power, honesty, lucidity, courage, and disinterested love of the truth of the most gifted thinkers of this era remains to this day without parallel (Berlin, 1956). Aligned with general humanistic principles, *l'esprit philosophique* of the Enlightenment generated new concepts, theories, and speculations about sensorily deprived persons that inevitably led to concerns for individuals impaired by mental retardation and mental illness. The unprecedented efforts of the French educational pioneers—Jacob Rodrigue Pèreire, Abbé Charles Michel de l'Épée, Valentin Haüy, and others—adumbrated the major elements of Enlightenment philosophy. Educators were joined by the *ideologues*—young physicians who incorporated new and novel psychological notions into their practices.

So fertile were the seeds sown by Enlightenment thought that, by the close of the eighteenth century, special education was accepted as a branch of education, albeit a minor enterprise. The instruction of disabled persons was no longer confined to isolated cases or regarded merely as a subject of philosophic curiosity; now it was demonstrated that they could learn as well as their fellow beings. Effective procedures were devised for teaching many disabled groups—the recorded history of the language of signs for deaf persons and raised print for blind and deaf-blind people can be traced to this era. The education of mentally retarded groups developed, and rapid advances were apparent in the care of the emotionally disturbed. Impelled by the same motives that led to the emergence of special education, psychology and psychiatry emerged as separate disciplines and branches of medical science.

THE BASIC TENETS OF ENLIGHTENMENT THOUGHT

Primarily French in inspiration and leadership, the Enlightenment brought about a revolution in the way people perceived their world and their role in it. The *philosophes* built their theories upon a combination of rationalism and empiricism that differed fundamentally from views that had prevailed earlier. The

three main branches of philosophy—metaphysics, the study of existence; epistemology, the study of knowledge; and ethics, the code of values that guides one's actions—came under scrutiny. The *philosophes* discarded the speculative metaphysics of the preceding century; they turned humanity from its preoccupation with God to an acute social consciousness and awareness of its fellows. They taught people to question, or to suspend judgment, rather than routinely to accept traditions. The central concept was that human beings were entitled to pass through life with a minimum of pre-judgment; that there was innate goodness and ability in everyone that could be developed, and the species, as a whole, could be perfected; that civilizing social influences, education in particular, could help those innate abilities and qualities grow to fruition (Winzer, 1986a). It was accepted as a basic premise that the world has been established by the Creator according to a definite plan, within which there were ordered ways to behave. These ordered ways were the laws of nature, which redounded to the glory of the Creator and the greater good of humanity.

During the early part of the eighteenth century the *philosophes*' criticism focused mainly on religion, literature, and art; only slowly did their moral intention develop into a political one (Doermer, [1969] 1981). As the century progressed, writers, savants, and philosophers moved from intellectual speculation to social outrage—they became increasingly troubled by the inequities of traditional social structures and demanded extensive reconstruction. They were convinced that the world, and especially France, needed making over, from the tiniest and most insignificant details to the great moral and legal principles (Brinton, 1965). Such disparate matters as education, weights and measures, the calendar, and justice and equity came under their scrutiny. They increasingly questioned the legal, moral, and religious foundations of French society, becoming more and more critical of the established order of church and state.

The prevailing mode of the French *philosophes* was attack: they attacked the philosophical traditions, the church, the state, warfare, intolerance, social hierarchies, the educational system, and the economic organization, intending, said Denis Diderot, "to change the general way of thinking" (quoted by I. Knight, 1968, p. vii). Their ultimate objective was not only the elimination of everything they regarded as evil in contemporary life but extensive reconstruction of French society and institutions (Church, 1964). At the same time, the *philosophes* attempted to understand the world, and especially humans themselves, in their moral, psychological, and social lives; to awaken a sense of individuals' social responsibilities as well as a sense of the community's responsibility toward its members.

The prolonged campaign against church and state was more than just destructive criticism: the *philosophes* of the French Enlightenment were animated by the idea of progress through science and psychology, which, they believed, would allow a corresponding liberation from superstition. Inspired by the scientific revolution of the seventeenth century, the *philosophes* saw Isaac Newton and Newtonian science as models worthy of their emulation. If Newton could explain the mechanisms of heaven and earth in three mathematical laws, then scientific reasoning would seem to offer endless possibilities for the reform of the social sciences. The state, the economy, education, and the very structures

of society itself could now be analyzed and scrutinized, and outmoded ideas and prejudices must yield to the test of criticism.

Novel and provocative ideas about equality and human rights, first generated by middle- and upper-class intellectuals, rapidly filtered down to influence all levels of society. Under the pervasive *l'esprit philosophique*, charity was active and philanthropy a sort of fashion. A movement toward the elevation of individual independence, self-respect, and dignity became common enterprises.

The question of the action of philosophical ideas and literary works upon social and political events has divided historians sharply, and the impact of Enlightenment thought on the American and French revolutions has been widely debated (e.g., Brinton, 1965; Church, 1964). Some view eighteenth-century French philosophy as a movement that chiefly attacked church and state; some view the *philosophes* as enemies of the existing political system who became irresponsible fomentors of revolution as they progressed toward impiety and even atheism. Others see the Enlightenment as an inevitable stage in the social and political development of France, and regard the movement as a progressive liberation from religious superstition and ecclesiastical tyranny (Copleston, 1985). Even if one interpretation of Enlightenment influence could be agreed upon, it would be difficult to assess its impact on revolutionary leaders.

It is easier to assess its impact on the genesis and development of special education. The French savants, endeavoring to dissipate the clouds of authority and the fogs of error, were quick to see how new ideas and discoveries might affect important psychological questions and forward the cause of humanity. They first directed their attention to those in society denied equality by social status; then they attempted to solve the vexing problems of those denied equality by nature. The philosophical influence precipitated a complex of intellectual activities that in turn shaped efforts in special education and proved decisive in initiating the systematic training of disabled persons.

Enlightenment ideas, in short, were germane to special education. Educational pioneers adopted the essential tenets of *l'esprit philosophique* and applied them in the form of specific techniques and methods for training and education. This is not to suggest that the *philosophes* directly pointed their theories toward special education any more than it is to imply that the teachers were *philosophes*. Étienne Bonnot de Condillac, Jean Jacques Rousseau, Diderot, and their colleagues were theorists, ultimately concerned with knowledge itself. The educators were people of practical abilities who adopted the reforming zeal and basic optimism of the *philosophes* while translating speculation to the arena of action (Winzer, 1986a).

The educational advances were accomplished within a new set of social boundaries constructed by Enlightenment thought. Special education answered some of the questions about what it takes to be counted in the ranks of humanity, how important it is to grow up in those ranks, what is owed to nature and what to nurture, and how perfectible humans are. In addition, very specific threads of Enlightenment thought—those concerning Lockean sensationalism, language, and the application of alternate sensory stimuli—were woven in to this new fabric to create major pedagogical and social advances for exceptional individuals.