

William Shakespeare (1564–1616) created characters that are among the richest and most humanly recognizable in all of literature. Yet Shakespeare understood human personality in the terms available to his age—that of the now-discarded theory of the four bodily humors—blood, bile, melancholy, and phlegm. These four humors were thought to define peoples’ physical and mental health, and determined their personalities, as well.

The language of the four humors pervades Shakespeare’s plays and their influence is felt above all in a belief that emotional states are physically determined. Carried by the bloodstream, the four humors bred the core passions of anger, grief, hope, and fear—the emotions conveyed so powerfully in Shakespeare’s comedies and tragedies.

Today, neuroscientists recognize a connection between Shakespeare’s age and our own in the common understanding that the emotions are based in biochemistry and that drugs can be used to alleviate mental suffering.

below: Claes Jansz Visscher, *Globe Theater from Londinum florentissima Britanniae urbs*, 1626. Courtesy Folger Shakespeare Library. In 1599, Shakespeare’s company of actors built the Globe Theater on the south bank of the Thames, almost directly across from St. Paul’s Cathedral. An amphitheater open to the skies, the Globe burned down in 1613 but was soon rebuilt on the old foundations. It remained in operation until the theaters were closed by city authorities in 1642.



The Unruly Woman

The case of Katharine Minola

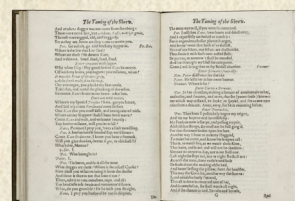


Shakespeare depicts the full range of humoralism in his dramatic characters. An excess of the hot, dry emotion of choler, or yellow bile, produced an angry disposition. Choler is valuable in great warriors but in the domestic world of romantic comedy, anger—especially the anger of women—represents a social problem for Shakespeare’s age, which calls for strong therapeutic intervention.

How to manage female anger is the central question of *The Taming of the Shrew*. Both protagonists, Kate and

Petruchio, are identified as choleric by nature, and his behavior in the play is widely seen as eccentric and disruptive. Yet, it becomes Petruchio’s job as husband to tame his shrewish wife and make her “a Kate conformable as other household Kates.”

above: David Bogue, *Angry face of Katharine Minola*, 1847. Courtesy Folger Shakespeare Library.



left: William Shakespeare, *The Taming of the Shrew*, Quarto, 1631. Courtesy Folger Shakespeare Library. Petruchio’s harsh program of “taming” his bride is a calculated intervention in her living conditions. He intends to change her humor by removing the accumulation of hot, dry choler in her body.

right: Louis Rhead, *Petruchio entertains his wife at dinner*, ca. 1918. Courtesy Folger Shakespeare Library.

Petruchio denies his wife dinner, claiming that roasted meat is too hot and dry for her nature. He deprives her of the pleasure of new clothes and of female companionship. All these deprivations have the effect of wearing her out, both physically and emotionally, until by the end of the play she is willing to submit to his humor, no matter what it might be.

I’ll curb her mad and headstrong humor...

William Shakespeare,
The Taming of the Shrew, ca. 1592



Melancholy Virgins

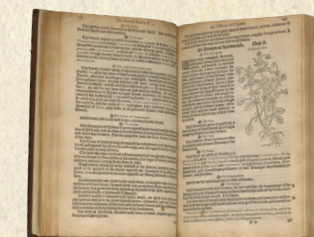
The case of Ophelia

Melancholy is the most complex of emotions for Shakespeare and his contemporaries, as it was for the ancients. The cold, dry temperament was considered the least desirable of the four, yet melancholy was also traditionally associated with genius and the life of scholarship.

In *Hamlet*, Ophelia becomes a classic case of the melancholy virgin because of her isolation at court, her overbearing father’s commands, and Hamlet’s withdrawal of attention from her.



above: John Hayter, *Melancholy face of Ophelia*, 1846. Courtesy Folger Shakespeare Library.



left: Robert Dodoens, *A Nieuwe Herball*, 1578. Courtesy National Library of Medicine. The healing powers of violets described by Flemish physician and botanist Rembert Dodoens (1517–1585) were well known to Shakespeare’s contemporaries. Madness of the kind Ophelia suffers after her father’s death and Hamlet’s rejection of her would have been understood as a drying and overheating

of the brain. The cooling properties of violets and their sweet scent—what we would call aromatherapy—would have been prescribed in her case. But there is no one in the Danish court to befriend and care for Ophelia. So it is ironic when in her madness she distributes flowers to the court and tells them, “I would give you some violets, but they withered all when my father died.”

right: Anonymous, *Ophelia in Hamlet*, late 19th–early 20th century. Courtesy Folger Shakespeare Library. William Shakespeare’s audiences would have understood the madness to which Ophelia succumbs after being cast out by Hamlet as an overheating of the brain resulting directly from her social circumstances.

Note her slumped posture and downward gaze. Instead of looking after the departing Hamlet, who has just angrily ordered her to “get thee to a nunnery,” she looks at the floor sadly.



The world of Shakespeare's Humors

The four bodily humors were part of Shakespearean cosmology, inherited from the Ancient Greek philosophers Aristotle, Hippocrates, and Galen.

Organized around the four elements of earth, water, air, and fire; the four qualities of cold, hot, moist, and dry; and the four humors, these physical qualities determined the behavior of all created things including the human body.

In the human body, the interaction of the four humors explained differences of age, gender, emotions, and disposition. The influence of the humors changed with the seasons and times of day and with the human life span. Heat stimulated action, cold depressed it. The young warrior's cholera gave him courage but phlegm produced cowards. Youth was hot and moist, age cold and dry. Men as a sex were hotter and drier than women.



Melancholic

Humor: **Black Bile**
Element: **Earth**
Season: **Winter**
Age: **Old Age**
Qualities: **Cold & Dry**
Organ: **Spleen**
Planet: **Saturn**

above: Henry Peacham, "Melancolia," *Minerva Britanna*, 1612. Courtesy Folger Shakespeare Library.



Phlegmatic

Humor: **Phlegm**
Element: **Water**
Season: **Autumn**
Age: **Maturity**
Qualities: **Cold & Moist**
Organ: **Brain**
Planet: **Moon**

above: Henry Peacham, "Phlegma," *Minerva Britanna*, 1612. Courtesy Folger Shakespeare Library.



Choleric

Humor: **Yellow Bile**
Element: **Fire**
Season: **Summer**
Age: **Childhood**
Qualities: **Hot & Dry**
Organ: **Gall Bladder**
Planet: **Mars**

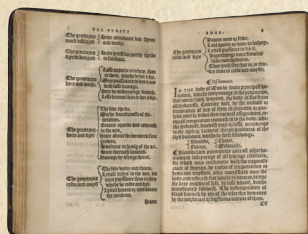
above: Henry Peacham, "Cholera," *Minerva Britanna*, 1612. Courtesy Folger Shakespeare Library.



Sanguine

Humor: **Blood**
Element: **Air**
Season: **Spring**
Age: **Adolescence**
Qualities: **Hot & Moist**
Organ: **Heart**
Planet: **Jupiter**

above: Henry Peacham, "Sanguis," *Minerva Britanna*, 1612. Courtesy Folger Shakespeare Library.



left: Thomas Elyot, *Castel of Helth*, 1541.

Courtesy National Library of Medicine. Tudor humanist Thomas Elyot (1490–1546) writes *The Castel of Helth* as an accessible introduction to the basic concepts of ancient Greek and Roman medicine. Here he describes sickness as an imbalance—or distemperature—in the quantity or quality of one of the four bodily humors. Blood had "preeminence"

over the other humors because it was in the blood that melancholy, phlegm, and cholera were delivered to the other parts of the body.

Melancholy in Age

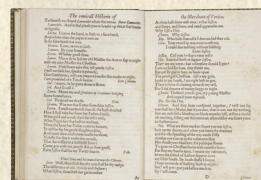
The case of Shylock



For William Shakespeare and his contemporaries, aging was a process of gradual drying of the flesh and cooling of bodily humors. The body's supply of blood diminished as individuals approached the final coldness and dryness of death. In old age, the body developed an excess of melancholy and the sad, unforgiving, and close-fisted disposition that accompanied that retentive bodily humor.

In *The Merchant of Venice*, Shylock is reviled by anti-Semitic Venetians who might have seen him as a pathological case of unnatural melancholy or "melancholy adust." When the body's natural heat and moisture were burned up by vengefulness like Shylock's against his Venetian enemies, the naturally clear fluids of the brain became darkened, resulting in an excess of the melancholy humor and what we might recognize as depression and unresolved anger.

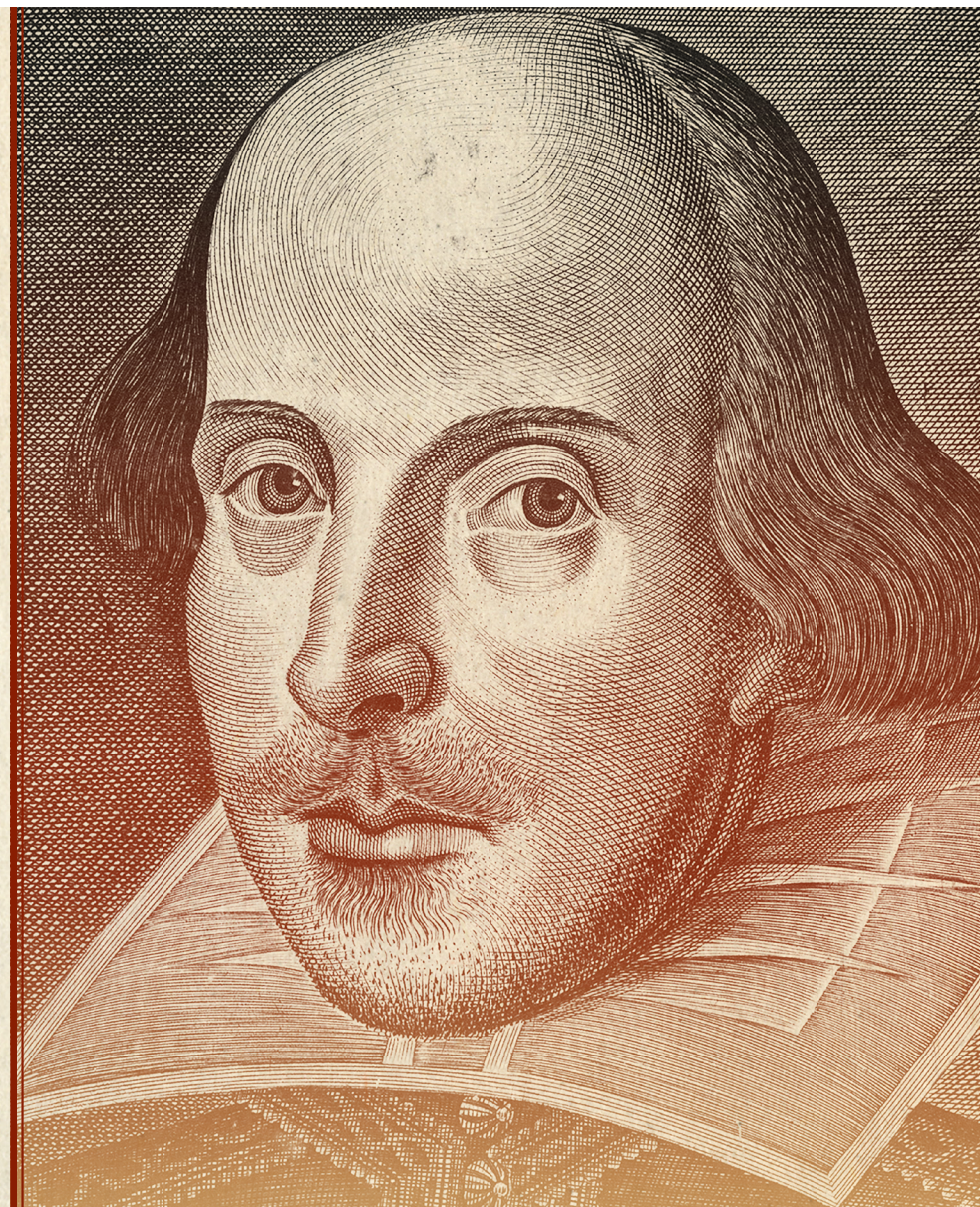
above: Felix Darley, *Shylock with Antonio and Bassanio*, 1884. Courtesy Folger Shakespeare Library.



left: William Shakespeare, *The Merchant of Venice*, 1600. Courtesy Folger Shakespeare Library. William Shakespeare's contemporaries would have identified Shylock's traits—his occupation as moneylender, his calculating disposition, his suspiciousness of others, his long memory, and his cruelty in demanding a pound of flesh from the merchant Antonio as repayment of a debt—as melancholic.

In conclusion:

Shakespeare's audiences were presented with plays depicting the full range of human behaviors and character types, from the vengefulness of choleric old age to maidenly melancholy. If the modern age no longer recognizes the four bodily humors, we recognize the emotions with which they were associated for so many centuries.



If all the elements, the earth, the sea
Air, and fire, so merry be,

Why is man's mirth so seldom and so small,
Who is compounded of them all?

Abraham Cowley, "Love's Riddle," 1638

"And there's the
humor of it"

Shakespeare and the four humors

William Shakespeare. Courtesy Folger Shakespeare Library.



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

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