Introduction: secret sympathies

Occult Knowledge, Science, and Gender on the Shakespearean Stage situates early modern texts within a Renaissance cosmology of occult forces.[1] While scholars have attended to the relationship between the environment and embodiment in Renaissance literature, we have paid little attention to the animate qualities of that environment.[2] It is the task of this book to demonstrate that a comprehensive understanding of the animate early modern natural world must encompass what lies beyond nature: the preternatural realm. Spirits, demons, and unseen active effluvia comprised the invisible technology of nature's marvels. Hidden in nature, people believed, were antipathies and sympathies that compelled both bonds and animosities among an unpredictable mix of plants, minerals, animals, and humans. As I shall suggest throughout this study, our critical tendency to misconstrue the discourse of sympathies and antipathies as merely metaphorical has obscured how a pervasive belief in hidden operations shaped early modern perceptions of nature, gender, passion, motivation, knowledge, and theatrical experiences.

Drawing on the drama of the period, as well as books of secrets, receipt books, and medical treatises, *Occult Knowledge* argues that the early modern English, both elite and common, conducted their lives with the conviction that their emotions, behavior, and practices were affected by, and dependent on, secret sympathies and antipathies that coursed through the natural world. For early moderns, sympathies and antipathies provided an organizing structure for a whole range of actions and beliefs.[3] Historian Stuart Clark affirms that of all the "occult agents, perhaps the most discussed were the sympathies and antipathies that drew natural things together in 'friendship' and drove them apart in 'enmity' ('the way things differ and agree with each other')."[4] While the role of sympathies and occult forces has been examined in relation to the history of science and magic, as well as literature, little attention has been paid to their relevance for what we might call day-to-day living.[5] *Occult Knowledge* distinguishes itself from earlier discussions

in its argument that occult agents were not the purview only of esoteric practitioners of magic.

Sympathies and antipathies not only produced involuntary emotional relationships but were also crucial levers by which ordinary people, as well as natural philosophers, supposed they could manipulate nature, heal or harm the body, and produce new knowledge. Indeed, it was the invisibility of nature's secrets – or occult qualities – that led to natural philosophy's privileging of experimentation, helping to displace a reliance on the inherited theories of ancient authority. In a direct challenge to Michel Foucault's characterization of Renaissance cosmology as a system of visual resemblances that condemned "sixteenth-century knowledge . . . to never knowing anything but the same thing," *Occult Knowledge* asserts that this cosmology was not a visual or knowable system, but a veiled one that provoked scientific thought.[6] In Foucault's view, early modern nature was a configuration of analogies and similitudes revealed by its visible marks. But the materials I examine in *Occult Knowledge* contradict Foucault's episteme. Early moderns insist again and again that Nature hides her secrets. Moreover, as some historians of science now argue, it was the obscure unpredictability of occult forces that fostered the development of Renaissance natural philosophy. In their focus on occult operations, proto-scientific experts and practitioners sought to determine what constituted natural phenomena and how to distinguish natural events from supernatural causes and demonological manipulation.

Enchantment and superstition

Modern skeptical readers tend to question the degree to which people in the period subscribed to such "magical thinking."[7] But evidence suggests that belief in spirits, demons, and occult qualities was commonplace. Even when historians identify the secularizing effects of the Reformation, few still promote a pre-Enlightenment disenchantment thesis. Many historians maintain, instead, that supernatural mentalities, in the aftermath of the Reformation, were shaped on the one hand by demonological thinking and on the other by the culture's widespread subscription to providence.[8] From a reformist perspective, supernatural mysteries were the work of God. Demons were effective only because they knew how to influence nature's hidden forces. To censure the practice of natural magic, early modern detractors argued that such knowledge necessarily derived from demonological sources. Thus, while the world remained enchanted, an individual's access to its magic may have been increasingly proscribed.

A central assertion in arguments that emphasize disenchantment and secularization is that early modern writers judged belief in magical practices and spiritual entities to be superstition. But modern scholars often misunderstand exactly what superstition means to early modern writers. Literary critics, in particular, have observed that a superstitious engagement with fairies and magic was often associated with foolish women, old wives, or the ignorant.[9] What these critics neglect to recognize is that early modern superstition does not translate to mean simply naïve credulity (or a lack of modern rational skepticism). More often than not, superstition implied the risky assumption that one could engage with spirits or magic *and* avoid interacting with the devil.[10] Erasmus, notably, expressed hostility against "old wives" and fairy tales, exclaiming that

> A boy [may] learn a pretty story from the ancient poets, or a memorable tale from history, just as readily as the stupid and vulgar ballad, or the old wives' fairy rubbish such as most children are steeped in nowadays by nurses and serving women.[11]

But Erasmus also warned his readers of the implicit idolatry of such beliefs, for the danger of superstitious practices lies in their potential for devilish harm. He states:

> all curyous artes and craftes, of divynyng and sothesayeng, of juglyng, of doing cures by charmes or witchcraft in whiche althoughe there be none expresse conspiration [may engage] with dyvelles or wycked spirites yet nevertheless is ther some secrete dealyng with them. . .[12]

The reality of wicked spirits or devils is not in question. What Erasmus aims to combat is the ignorant notion that one can indulge in curious arts and escape the devil's entrapment. And yet, despite faith in an intervening God and intrusive devils, people also persisted in believing that they could direct or be affected by mysterious sympathies and antipathies in nature, in a preternatural realm removed from God's aid or the devil's interference. Reformist charges could not erase the "popular desire for some kind of instrumental application of sacred power to deal with the exigencies of daily life."[13]

Occult qualities and science

Occult Knowledge aims to complicate the disenchantment narrative in part by exploring the relationship between occult phenomena and scientific knowledge. Recent work in the history of science suggests that the early modern exploration of occult qualities proved central to the development of

the experimental method. This perspective on the history of science implicitly challenges the historical break described by Foucault, who characterized modernity as a shift away from the sixteenth-century episteme of resemblances to a system of representation. After the Renaissance, Foucault argues, a world of resemblances gave way to one of "identities and differences."[14] But Foucault's account of the sixteenth-century world of sympathies is distorted in ways that prove crucial to the argument of this book. First, he maintains that the nature of sympathies is visually knowable. Relying heavily on Paracelsus' theory of signatures, Foucault contends that the hidden attractions or kinships between things (whether animal, mineral, or vegetable) could always be discerned by an external mark:

> Now there is a possibility that we might make our way through all this marvelous teeming abundance of resemblances without even suspecting that it has long been prepared by the order of the world, for our greater benefit. In order that we may know that aconite will cure our eye disease, or that ground walnut mixed with spirits of wine will ease a headache, there must of course be some mark that will make us aware of these things: otherwise, the secret would remain indefinitely dormant. Would we ever know that there is a relation of twinship or rivalry between a man and his planet, if there were no sign upon his body or among the wrinkles on his face that he is an emulator of Mars or akin to Saturn? These buried similitudes must be indicated on the surface of things; there must be visible marks for the invisible analogies.[15]

As we shall see in our discussion of medical receipts, the hidden logic of antipathies and sympathies determines what ingredients (such as aconite or walnut) make a cure efficacious. And while it is true that some similitudes had made themselves known by visual resemblances (such as the oft-mentioned likeness of the walnut's appearance to the brain), most sympathies and antipathies remained occult. Paracelsus argued that God embedded signatures in all things for the physician to identify, but he also conceded that use or experience ultimately confirmed the true value and hidden qualities of a substance.[16]

Second, in direct contrast to Foucault's claim that the Renaissance system of sympathies and resemblances meant that "sixteenth-century knowledge condemned itself to never knowing anything but the same thing," the hidden and illegible nature of these occult qualities actually provided a foundation for knowledge-making based on new experimental methods that emphasized the observation of effects over theoretical causation.[17] As we have noted, it has long been understood that sympathies and antipathies were the foundation for natural magic in the period, but scholars have also established that natural magic functioned as an early modern form of

natural science. Indeed, Lynn Thorndike, Charles Schmitt, Brian Vickers, and many others, have debated the degree to which occult mentalities played a role in the development of scientific thinking.[18] Historians of science no longer subscribe to a single narrative of a scientific revolution, with its attendant forces of secularization and disenchantment. And, as John Henry has argued, an investigative focus on occult phenomena played a fundamental role in the development of scientific knowledge:

> The occult qualities or principles of matter . . . could only be evinced, it was claimed, by experimental procedures. Thus the professed belief in occult qualities came to be amalgamated with or embedded into other arguments in defense of the experimental method.[19]

Moreover, the concept of occult qualities compelled natural philosophers to determine the boundaries between and among preternatural, natural, supernatural, and demonic phenomena. While it was understood that demons knew most thoroughly the "properties and powers of all the elements, metals, stones, herbs [and] plants," many natural philosophers kept their focus on the secret workings of nature by sidelining demonic forces in their inquiries.[20] As Lorraine Daston has established, those philosophers examining the strange effects of sympathies and antipathies demonstrated an "unflinching commitment" to natural explanations.[21] In rejecting the common recourse to occult qualities in explanations of disease transmission, Giralamo Fracastoro, for example, developed his theory of contagion through an understanding of sympathies, antipathies, and invisible *species spirituales*.[22] To explain the perceived phenomena of sympathies and antipathies, natural philosophers of various stripes consistently appealed to material but invisible emission of effluvia.[23] Indeed, for many early modern proto-scientists, apparent instances of action-at-distance were elucidated by appeals to hidden emanations, whether characterized as spirits, corpuscles, or atoms.[24] In *Physiologia Epicuro-Gassendo-Charltoniana*, a text of mechanical philosophy that systematically interrogates the most notorious instances of sympathy and antipathy, Walter Charleton explains these forces as corporeal but imperceptible, even granting the reality of women's capacity to fascinate others due to the malignant spirits that emanate from their eyes and brains.[25]

"Boundary work," in its original use, refers to the demarcations in science studies between fields of knowledge, where experts and practitioners aim to determine what counts as legitimate science. Within early modern natural philosophy, boundary work sought to distinguish supernatural miracles from preternatural wonders and to provide natural explanations for the apparent powers of non-human matter and agents.[26] These natural explanations,

however, were not necessarily motivated by an emergent scientific rationality, as a modern might suppose. Instead, the experimenter often sought to secure a boundary between demonic and non-demonic activities. As Sir Francis Bacon observes, experimentation could invoke malign spirits.[27] To probe nature's secrets safely means to keep the devil at bay. Attributing power to the sympathetic and antipathetic forces of the imagination "was the standard means of denying the actions of demons and witches."[28]

It is, notably, the pervasiveness with which writers appeal to sympathies and antipathies that drove Sir Francis Bacon to insist upon developing more expansive and incisive methods of inquiry. Notoriously, Bacon rails against "students of natural magic" in *Novum Organum* (1620), criticizing them for their tendency to "explain everything by Sympathies and Antipathies."[29] But Bacon also has a complicated investment in these same forces.[30] In fact, he wrote an introduction to a proposed *History of the Sympathy and Antipathy of Things* where he acknowledges the absolute centrality of such forces as the "spurs of motions and the keys of works" in nature. What he laments, however, is that men rely indolently on the "recital of specific properties, and secret and heaven-sent virtues" at the expense of "searching out the real causes."[31] As Katharine Park puts it, Bacon saw sympathies and antipathies as signs that more profound explanations existed at an even deeper level.[32] Bacon's *Sylva Sylvarum* proves devoted to examining and explaining a whole range of sympathetic and antipathetic phenomena, from emotional bonds, to fascination, to cruentation (bleeding corpses), to the effects of precious stones. As Lorraine Daston and Park observe in their work on wonders, the Aristotelian tradition of science sought to establish the regularities of nature, but a Baconian approach urged attention to where nature seemed to go awry.[33] In Guido Gilgioni's words, Bacon's *Sylva Sylvarum* indicates that it "is only by knowing and subduing the appetites of matter that man can master the intractable forces of nature, restoring humankind's original control of its appetites."[34] For Bacon, the wonders generated by antipathies and sympathies provide ready framed opportunities for conducting trials and experiments that will vex Nature until she reveals her secrets.[35]

Sympathies and humors

This study intervenes in the current scholarship on the history of emotion to explore how a pervasive belief in sympathies and antipathies shaped early modern interpretations of affective experiences. As Gail Kern Paster and Michael Schoenfeldt have demonstrated, the theory of humors was fundamental to sixteenth- and seventeenth-century explanations of human

emotions and behavior. Critical appeals to humoralism have opened up new understandings of pre-modern psychological processes and shed light on questions of identity, agency, gender, race, and sexuality.[36] While this contemporary critical work has been enormously productive, *Occult Knowledge* advances the thesis that early modern writers established that some emotions could not be explained in humoral terms.[37] Unlike the humors, which "reflected universal characteristics of the four elements present in all terrestrial bodies," occult properties were idiosyncratic, peculiar, and often at odds with the observable, elemental world.[38] As the seventeenth-century writer Will Greenwood observes in *[Apographe storges], or, A description of the passion of love* (1657), where there is a "sympathy in Nature," there may be "an antipathy in Complexion," and where there is "a sympathy in Complexion," there may be "antipathy in Nature."[39] In other words, one's humoral complexion cannot function as an indicator of hidden sympathies and antipathies.

As manifest qualities, humors served as the basis for understanding passions, disposition, and temperament; however, people also attributed certain behaviors to the hidden sympathetic and antipathetic potencies coursing through the natural world. Sympathies and antipathies were thought to inhabit all animals, minerals, plants, and people. Their occult energies attract and repel other fauna, flora, and minerals, uniting and dividing an endless array of strange couples. As the sixteenth-century writer William Fenner observes, nature's hidden sympathies produced inexplicable bonds:

> The Philosophers call them *occultae qualitates*, *hidden qualities*, no reason can be given of them. No man can give a reason why the load-stone should be so deeply affected with iron, as to draw it unto it. It hath a sympathy with it; the wilde Bull hath a sympathy with a figgetree; nothing can tame him but it; the Elm hath a sympathy with the Vine: the Vine hath a sympathy with the Olive.[40]

We can find a similar occult logic in Desiderius Erasmus' colloquy on friendship, which establishes how sympathies found in nature determine the enigmatically close connection one may feel with another person.[41] Unable to explain certain peculiar attachments, Erasmus, along with many writers in the period, recites a list of perplexing attractions and repulsions, or sympathies and antipathies, long observed in the world:

> A Serpent is an Enemy to Mankind and Lizards: He loves Milk, hates the Smell of Garlick. A Crocodile is a mortal Enemy to Mankind. A Dolphin is a greater Lover of them. Every Kind of Animal by mere Instinct fears its

> Enemy. A Horse mortally hates a Bear. An Elephant loves a Man wonderfully, but hates a Dragon, a Mouse, and a Swallow. A Dog is a very friendly Creature to Man, and a Wolf as great an Enemy, so that the very Sight of him strikes a Man dumb. A Spider is a great Enemy to a Serpent and a Toad. A Toad is cured immediately by eating of Plantane.[42]

Hidden similitudes, such that would draw an elephant to man, could not be discerned by mere appearance; knowledge of this sympathy was gained experientially or anecdotally. As Fenner notes, "No man can give a reason why" these attractions and repulsions occur in nature, for they are recognized only by their strange effects. Levinus Lemnius, in *The secret miracles of nature*, argues the same point when he explains that "sympathy and mutual agreement, whereby the one is by similitude wonderfully affected with the other, & thence comes the attraction" is the result of "secret and hidden properties . . . [where] we see the effects of things, but we know not the causes."[43]

On the emotional influence of secret sympathies, readers may be most familiar with Marsilio Ficino's theory of the occult nature of love:

> Because the whole power of magic consists in love. The work of magic is the attraction of one thing by another because of a certain affinity of nature . . . just as in us the brain, lungs, heart, liver, and the rest of the parts . . . sympathize with any one of them when it suffers, so . . . all the bodies of the world . . . From this common relationship is born a common love; from love a common attraction. And this is the true magic . . . Thus also the lodestone draws iron, amber draws chaff.[44]

In all likelihood, it was Ficino's fifteenth-century translation of the *Hermetica* that incited subsequent scholarly fascination with the potentialities of natural magic and helped bring about the expanding medical interest in occult qualities.[45] Indeed, mostly removed from the critical debate about the passions is a substantial body of scholarship on the intellectual history of magical sympathies. Drawing on a range of ancient Greek writers such as Empedocles, Posidonius, and Plotinus, Renaissance treatises on natural magic describe a natural world of hidden forces of attractions and repulsions. Interest in Neoplatonic Hermeticism was shared by Giovanni Pico della Mirandola, Agrippa von Heinrich Cornelius von Nettesheim, Giambattista della Porta, and Paracelsus. In Pico's words, the magician's role was to reveal "the wonders lying hidden in the recesses of the world, in the bosom of nature, and in the storehouses and secrets of God."[46] It is "universal sympathy that makes all magic possible."[47] We could argue that the detachment of "sympathy" – as a modern affective term – from its roots in magic and medicine is part of a larger history of dematerialization and

metaphorization that early modern scholars have delineated in their work on embodiment.[48]

Referring to "sympathy" in its modern sense underscores the fact that sixteenth-century understandings of sympathy had surprisingly little to do with moral philosophy. Some literary scholars have suggested a historical split developed in the seventeenth century between a pre-Cartesian, residually magic conception of sympathy and an emergent, consciously developed moral position.[49] But even as late as the eighteenth century, sympathy could still imply a mysterious, involuntary, and even contagious emotional experience.[50] In his writing on religious enthusiasm, for example, the Earl of Shaftesbury expresses concern that mobs spread panic by sympathetic contact and mere looks. Before the eighteenth century, sympathy was not just a somatic feeling but a somatic feeling that breached the boundaries of individual bodies.[51] Our current notion of sympathy as an ethical, emotional response is the residual afterlife of the embodied sympathy that engaged the pre-moderns. Indeed, early modern conceptions of contagious or infectious sympathies may have inhibited the development of the later moral sentiment, since sympathetic empathy presumes individuated boundaries between the subject and object.

For the most part, however, scholars have neglected to trace how universal sympathy may have played a significant role in vernacular and popular understandings of emotion in the early modern period. In *A treatise of the passions* (1640), Edward Reynolds indicates that the affections can be understood through two lenses; most passions are shaped by one's nature and place, but there are also emotions that seem to exceed the humoral paradigm. On occasion, people will experience an attraction that derives from "secret vertues and occult qualities":

> Love then consists in a kind of expansion or egresse of the heat and spirits to the object loved, or to that whereby it is drawne and attracted whatsoever therefore hath such an attractive power, is in that respect the object and general cause of Love. Now, as in Nature, so in the Affections likewise, we may observe from their objects a double attraction: The first is that naturall or impressed sympathie of things, whereby one doth inwardly incline an union with the other, by reason of some secret vertues and occult qualities disposing either subject to that mutuall friendship, as betweene Iron and the Loadstone: The other, is that common and most discernable attraction which every thing receives from those natures, or places whereon they [are] ordained . . . [by] Providence.[52]

In a similar vein, Reynolds notes, nature produces instances of "strange *Hatred* . . . amongst men; one mans disposition so much disagreeing from

anothers, that though there never passed any injuries or occasions of difference betweene them, yet they cannot but have minds averse from one another." These extraordinary antipathies derive from the same occult qualities that purportedly cause serpents and lions to fear fire, or that compel an elephant to reject his meat "if a Mouse have touched it."[53]

We can find a dramatic example of an occult antipathy in Shakespeare's *The Merchant of Venice*, when Shylock is asked by the Venetian court to explain his desire to take revenge on Antonio. He suggests to the court that they attribute his hatred to his "humour," but his explanation indicates that he is infected by a peculiar and more irrational animosity than what choler can produce:

> Some men there are love not a gaping pig,
> Some that are mad if they behold a cat,
> And others when the bagpipe sings i' th' nose
> Cannot contain their urine; for affection,
> Mistress of passion, sways it to the mood
> Of what it likes or loathes. Now, for your answer:
> As there is no firm reason to be rendered
> Why he cannot abide a gaping pig,
> Why he a harmless necessary cat,
> Why he a woollen bagpipe, but of force
> Must yield to such inevitable shame
> As to offend himself being offended,
> So can I give no reason, nor I will not,
> More than a lodged hate and a certain loathing
> I bear Antonio, that I follow thus
> A losing suit against him.[54]

Shylock's odd examples of men who cannot hold their urine when they hear a bagpipe, or who grow mad in the presence of a cat, would have recalled for some early modern audience members the strange and oft-repeated catalogs of occult qualities. Giambattista della Porta, for example, remarks on the mysterious nature of antipathies in a similar vein: "Some cannot away to look upon a Cat, a Mouse, and such like, but presently they swoon."[55] These peculiar aversions were understood as inexplicable and illogical – occult, rather than humoral, in their causation. As Gail Kern Paster rightly observes, Shylock "constructs his obduracy as a natural antipathy of the sort common in humans and animals both," but Shylock also alienates the term "humor" from its familiar significance as a quality that can be shaped, purged, and modulated by the non-naturals.[56] The inability to abide "a harmless necessary cat" is symptomatic of an internal occult property that cannot be altered or understood. Shylock argues that