

Chapter 9

Renaissance Theories of Internal Senses

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The standard Renaissance accounts of the internal senses often followed medieval sources, such as Albert the Great's *De homine* and the anonymous *Summa naturalium*, maintaining that there are five internal senses: common sense and imagination, which are located in the front ventricle of the brain; fantasy and the estimative power in the middle ventricle; and memory in the posterior one. According to these accounts, common sense has a variety of functions, such as comparing between the objects of different senses and the consciousness of perception. Imagination is the faculty which retains the sensible forms received by common sense. Fantasy or the cognitive power, as it was sometimes called, is the faculty which composes and divides sensible forms and intentions, yielding new images. Intentions are evaluative features that the estimative power elicits from the sensible forms. The estimative power also provides a kind of judgement on the level of sense cognition and accounts thereby for instinctive reactions of avoidance or trust. Memory is the faculty which retains sensible forms and intentions. It differs from imagination because it retains sensible forms with knowledge of the past.

There were, however, disagreements about whether there are four internal senses, as Averroes maintained, or five, as claimed by Avicenna, as well as about whether the internal senses are located in the brain, as claimed by Galen, or in the heart, as Aristotle maintained. There were also authors who rejected the localisation of the internal senses in separate ventricles, maintaining that the brain works as a unit. Another major trend in Renaissance philosophical discussions of the faculties of the soul was the tendency to simplify psychological theories by eliminating or reinterpreting traditional explanatory models. In the case of the doctrine of the internal senses, some authors tended to either conflate them into a single function, usually called imagination, or reject those not attested by Aristotle (1).

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Imagination was considered, in terms of faculty psychology, as an inner function of the apprehensive power of the sensory soul and, by extension, the faculty of the soul which mediates between sensation and reason. The fact that imagination transmits sense data from sense perception to the mind suggests that it is closer to the body than to the immaterial mind, but since the mind makes use of these images, it was generally agreed upon that imagination takes an intermediary position; because of this, imagination inevitably became a subject for philosophical discussions about the relation between soul and body. While the traditional cognitive function of providing phantasms for intellection was often discussed, the imagination was increasingly treated as an active power which combines and divides sensory forms. This was regarded as an important and useful ability in poetry and rhetoric, but also potentially harmful if not guided by reason. Therefore, uncontrolled imagination can become a dangerous power that distorts our perception of the world and leads us astray (2).

Moreover, since imagination was regarded as closer to matter than the higher faculties of will and intellect, and therefore as more sensitive to influences that act directly on matter but not on the soul, imagination was often conceived as a power that can affect one's own body or even the body of other people, as in the case of fascination. According to this view, for which Renaissance authors found support in Avicenna and other Arabic sources, imagination can cause and cure illnesses; it can transmit, through bodily vapours, strong emotions like rage and bliss from one person to another, and it can even effect material changes in that way. Among Renaissance theorists, for example, it was common to explain monstrous progeny as the result of the mother's imagination and the contemplation of images at the time of conception or during pregnancy. Stories of monstrosities caused by a disorder of the maternal imagination were extremely popular (3).

1 Classification and Localisation of the Internal Senses

a. There are five internal senses: common sense, imagination, the estimative power, fantasy (which sometimes also is called imagination), and memory. Their organs in the substance of the brain are separated by very fine membranes and three ventricles can be discerned. The anterior and middle ventricles, which are the largest, are divided in two parts. The first part of the anterior ventricle is the organ of the common sense, and the second part, of imagination. The first part of the middle ventricle is assigned to the estimative power, and the second to fantasy. The posterior ventricle is given entirely over to memory. (Gregor Reisch, *Margarita philosophica*, X.2.21)

b. As in nutrition, where we discern different faculties responsible for the reception, preservation, digestion and distribution of nourishment, there is in the human and animal soul one function which receives the images imprinted by the senses and is therefore called imagination; one which contains them, which is memory; one which elaborates them, which is fantasy; and one which hands them on to assent or dissent, which is the estimative power. ...

The activity of imagination in the soul is analogous to that of the eyes in the body: it is as the opening of a receptacle, which is memory. Fantasy conjoins and separates those things which imagination has received as single and simple. I do not ignore that many confuse these two activities, i.e., they call imagination fantasy and vice versa, and some believe that they are the same function. To us it seems more appropriate to our aim and more suitable to instruction to distinguish them. Since we discern their distinct operations, they are to be regarded as different faculties. But it is not a serious inconvenience to use these two terms interchangeably. Then there is the sense which Aristotle calls common, with which absent objects are judged and those things that belong to several senses are distinguished; this can be accomplished by imagination, as well as by fantasy. Fantasy is marvellously free and disengaged. It invents, reproduces, combines and dissolves everything it wishes. It conjoins the most distant things, and separates the most united. Therefore, if it is not controlled and bridled by reason, it shakes up and disturbs the mind as a storm stirs up the sea. ...

The estimative faculty is that which makes the power of judgement spring forth from sensible species. Judgement tends to establish what is beneficial and harmful; for the sake of well-being nature provides sensible cognition as well as its own impulse. So it is first judged how a thing is when evaluated in itself, and thereafter to what extent it is beneficial or harmful. In the first assessment, the soul follows the senses, as sight for example; in the second, it is moved by a hidden natural impulse and dragged with force, as when the sheep avoids the wolf, even if it has never seen one before ...

To these faculties nature has assigned different instruments and different workshops in the parts of the brain. They say that in the front of the brain is the seat and source of sensation and that is where imagination is produced; fantasy and the estimative power are in the middle part, and memory in the back. (Juan Luis Vives, *De anima et vita* I.10 (*Opera omnia* III, 327–328))

c. This is not the place to discuss a question which has vexed many, namely, whether imagination is different from memory, the common sense, and the estimative or cogitative faculty, as Thomas and the Latin interpreters of Aristotle have declared, or if there is only one single power of the sensitive soul, which, in accordance with its diversity of functions, is sometimes called the common sense, sometimes the imaginative faculty, sometimes memory, as others, in particular Alexander of Aphrodisias, in the treatise *De anima* ... and Themistius, in his books *De memoria* and *De insomniis*, would have it.

We must leave out the question, which has also tormented many, of the place and seat of the imaginative power. Aristotle located it in the heart, and Galen in the brain, and the Arab Averroes, taking a middle position, asserted that the imaginative power moves from the castle of the heart, and goes up to the stronghold of the head, where it finds its seat and dwelling-place. (Gianfrancesco Pico della Mirandola, *De imaginatione*, ed. Caplan, 34–36)

d. The sensitive soul, which is between the vegetative and the intellective, is divided in two parts: the five external senses and the internal senses, which serve our soul

receiving the images of objects and presenting them to the intellect. These are four, although Aristotle does not mention more than three explicitly: common sense, fantasy or imagination, the cogitative power and memory. These four powers or faculties, which in fact are just one and cannot be distinguished except by thought, are located in the heart, according to Aristotle, but not according to Galen, who followed Hippocrates and Plato.

The function of common sense, which is like the centre of a circle, is to apprehend and distinguish the difference between different sensibles, such as colours and tastes. To distinguish between sweet and white, for example, is an operation of common sense, by means of which we also perceive that we perceive, so that when we see or hear we also know that we see or hear. Common sense only works when the sensible object is present. [...] Common sense has its own seat and is located, according to the physicians, in the first part of the brain.

Fantasy or imagination has the same function of common sense. Unlike the latter, which functions only when the objects are present, it functions when they are absent or distant, as can be seen when we dream or make up all kind of things. This function, which composes, divides and discurs, is located in the second part of the brain, which is in the middle.

The faculty of the cogitative power, which in animals is called estimative, is to know what is useful and good or harmful and dangerous ... It is located in the middle of the brain together with imagination. (Benedetto Varchi, 'Sul verbo *Farneticare*', *Opere* II, 744)

e. *Phantasie*, or Imagination, which some call *Æstivative*, or *Cogitative* (confirmed, saith *Fernelius*, by frequent meditation) is an inner sense, which doth more fully examine the species perceived by common sense, of things present or absent, and keeps them longer, recalling them to mind againe, or making new of his owne. (Robert Burton, *The Anatomy of Melancholy* I.1.2.7)

f. From that which takes place in a clear and obvious way in the external senses, we can infer the activity of the internal senses. With this power of the animal soul we understand, imagine and remember. But if it is true that every operation requires a particular instrument, then it is necessary that there is in the brain an organ for understanding, one for imagination, and yet another for memory. For if the whole brain was organised in the same way, then it would be entirely devoted to either memory, understanding, or imagination. We see, however, that it has different operations and we must therefore conclude that it has different instruments. But if we open the skull and perform an anatomical dissection of the brain, we see that it is entirely composed in the same manner by a homogenous substance, without any heterogenous parts. There are only four small cavities, which, on close inspection, have the same composition and size, and differ in no respect ... Now, the difficulty is to know in which of these ventricles understanding is located, in which memory, and in which imagination; for these powers are so close and united that there is no evidence by means of which they can be distinguished or discerned. If we consider that understanding cannot function without the images presented to it by memory, nor can memory work without the assistance of imagination, we can easily understand

that these three potencies are united in every ventricle, and that there is not one assigned to understanding, another to memory, and a third to imagination, as the vulgar philosophers have thought. (Juan Huarte de San Juan, *Examen de ingenios para las ciencias* (321–325))

g. Imagination originates from heat, which is the third quality, since in the brain there is no other rational faculty or quality from which it could derive. The disciplines which pertain to imagination are others than those which belong to understanding and memory; since frenzy, mania and melancholy are hot affections of the brain, they can be considered as evidence in order to prove that imagination consists in heat. (Juan Huarte de San Juan, *Examen de ingenios para las ciencias* (340))

Reisch's *Margarita philosophica* was a popular source for standard medieval views. His classification of the internal senses follows the Avicennian division which was one of the Latin medieval taxonomies (**a**). See pp. 132–133 above. Vives describes the functions of the inner senses in a traditional way in his *De anima et vita* (**b**). While associating the functions of the common sense with the faculties of imagination and fantasy in the text quoted above, he also treats the common sense as a separate faculty elsewhere (III, 390 and 394–396). The traditional functions are also described, for example, by Benedetto Varchi in 1858–1859 (**d**) and mentioned by Robert Burton in 1621 (**e**). Many authors were inclined to see the internal senses as the functions of one power of the sensory soul (**c**, **d**), whether located in the brain ventricles (**b**) or simply in the brain, as did Juan Huarte de San Juan, who was sceptical about the traditional localisation theory (**f**). The Aristotelian heart-centered view was often mentioned but hardly supported (**c**, **d**). In physiological accounts based on the medical theory of humours, imagination could be characterised by the quality of hotness and associated with reprehensible conditions of the mind, such as frenzy and mania (**g**). For the tendency to either conflate the internal senses into a single function, usually called imagination, or at least reject those not attested by Aristotle, see also Niccoló Tignosi, *In libros Aristotelis de anima commentarii* (Florence, 1551), 325; Francesco Piccolomini, *Libri ad scientiam de natura attinentium* (Venice, 1600), 51f.; Francisco Suárez in his *De anima* (III.30). See Park 1988; Casini 2006.

2 Imagination as a Representative Power

a. Although imagination differs from the powers of the soul mentioned above [i.e., sense, opinion, reason, and intellection], the difference is not so great that imagination does not have any communication with them. It is rather so close to them that philosophers of good reputation have, due to this affinity, often confused

it with some other power. Imagination is located on the border between intellect and sense, and its place is between these two. It follows sense, by whose act it is brought forth, and foregoes intellection. It corresponds to sense because, like it, it perceives the particular, corporeal, and present. It surpasses sense, because it generates images without any external impulse, not only of the present, but also of the past and the future, and even of such things that cannot be brought to light by nature. It conforms with sense, because it makes use of sensible forms as objects. It is superior to sense, since it alternately separates and combines at will those forms which sense, upon ceasing to function, has abandoned; this is something which sense cannot do.

It is in accordance with the intellect, in being free, unfixed, and devoted to no special object. But the intellect is superior to it, since imagination conceives and reproduces the sensible and particular only, while the intellect, in addition, conceives and reproduces the universal and intelligible, and such things that are not affected by contact with matter.

Moreover, imagination associates with all the superior powers, since they would not succeed in that function which nature has given each of them unless imagination helped and supported them. Nor could the soul, tied as it is to the body, think, know, or comprehend at all, if fantasy did not continually provide it with images ...

Therefore, we must consider imagination as having been given to man, not at random, but most prudently. Man consists of and is, so to speak, composed of the rational soul and the body, and since the spiritual substance of the soul is very different from the earthly mass of the body, the extremities were conjoined by an adequate mean, which in some way shares the nature of each, and through which the soul, even when united to the body, carries out its own functions. (Gianfrancesco Pico della Mirandola, *De imaginatione*, ed. Caplan (30, 32, 40))

b. From a good imagination all those arts and sciences which are based on figure, correspondence, harmony and proportion are born. These are: poetry, eloquence, music, the capacity of preaching, practical medicine, mathematics, astrology, the ability to govern a republic, military art, painting, drawing, writing, reading, being a pleasant, witty, neat and acute man in practical matters, all those machines and devices which are invented by artificers, as well as those capacities which impress people, such as simultaneously dictating to four scribes different arguments and managing them to become well-ordered. (Juan Huarte de San Juan, *Examen de ingenios para las ciencias* (395–396))

c. Poesy is a part of learning in measure of words for the most part restrained, but in all other points extremely licensed, and doth truly refer to Imagination; which, being not tied to the laws of matter, may at pleasure join that which nature hath severed, and sever that which nature hath joined, and so make unlawful matches and divorces of things. (Francis Bacon, *The Advancement of Learning* II.4.1)

d. Invention is an instrument of the imagination used to conceive things, which is put to our use. It is diffused throughout the poem as blood through the animal body; one may therefore call it the life or the soul of the poem (Jacques Peletier, *Art poétique* I.4)

e. Invention is nothing other than the proper natural working of the imagination which conceives the ideas and forms of everything that can be imagined, heavenly as well as earthly, animate or inanimate, in order afterwards to represent, describe, and imitate them. For just as the purpose of the orator is to persuade, that of the poet is to imitate, invent, and represent the things which exist or which may exist, that is, the verisimilar. One cannot doubt that after subjects have been well and boldly invented, a fine arrangement follows, since the arrangement follows the invention, the mother of everything, as a shadow follows the body. (Pierre de Ronsard, *Abbrégé de l'art poetique François* (1566, 5v))

f. Invention, which is nothing other than an imagination of things that are either true or verisimilar, or we might say possible, is the main pillar of the great machine of imitation, and the base and foundation of the whole poetic art, since it is concerned with those same three objects upon which imitation, as if upon its proper seat, rests, that is, imitating nature, or art, or chance. (Pietro Cresci, *Discorso sopra un sonetto in lode del celebre luogo di Valchiusa* (1599, B5))

g. Neither is the Imagination simply and only a messenger; but it is invested with, or at leastwise usurpeth no small authority in itself, besides the duty of the message. For it was well said by Aristotle, *That the mind hath over the body that commandment, which the lord hath over a bondman; but that reason hath over the imagination that commandment which a magistrate hath over a free citizen; who may come also to rule in his turn.* (Francis Bacon, *The Advancement of Learning* II.12.1)

h. Again, if the affections in themselves were pliant and obedient to reason, it were true there should be no great use of persuasions and insinuations to the will, more than of naked proposition and proofs; but in regard of the continual mutinies and seditions of the affections ... reason would become captive and servile, if eloquence of persuasions did not practice and win the imagination from the affections' part, and contract a confederacy between the reason and imagination against the affections; for the affections themselves carry ever an appetite to good, as reason doth. The difference is, that the affection beholdeth merely present, reason beholdeth the future and sum of time. And therefore the present filling the imagination more, reason is commonly vanquished; but after the force of eloquence and persuasion hath made things future and remote appear as present, then upon the revolt of the imagination reason prevaieth. (Bacon, *The Advancement of Learning* II.18.4)

i. What Imagination is, I have sufficiently declared in my *Digression of the Anatomie of the Soule*. I will only now point at the wonderfull effects and power of it; which, as it is eminent in all, so most especially it rageth in melancholy persons, in keeping the species of objects so long, mistaking, amplifying them by continuall and strong meditation, untill at length it produceth in some parties reall effects, causeth this and many other maladies. And although this *Phantasie* of ours, be a subordinate facultie to reason, and should bee ruled by it, yet in many men, through inward or outward distemperatures, defect of Organs, which are unapt or hindered, or otherwise contaminated, it is likewise unapt, hindered, and hurt. This we see verified in sleepers, which by reason of humours, and concourse of vapours troubling the

Phantasie, imagine many times absurd and prodigious things, and in such as are troubled in *Incubus*, or Witch ridden (as we call it) if they lie on their backs, they suppose an old woman rides; & sits so hard upon them, that they are almost stifled for want of breath; when there is nothing offends, but a concourse of bad humours, which troubles the *Phantasie*. This is likewise evident in such as walke in the night in their sleepe and doe strange feats: these vapours move the *Phantasie*, the *Phantasie* the *Appetite*, which moving the *animall* spirits, causeth the body to walke up and downe, as if they were awake. (Robert Burton, *The Anatomy of Melancholy* I.2.3.2)

According to Gianfrancesco Pico della Mirandola, imagination is an intermediary between the soul and the body and its images are necessary for the cognitive acts of the rational soul (a). This was a usual position among Renaissance thinkers, although there were various views about the co-operation between the intellect and imagination (see Spruit 1995). Some authors related mental faculties with areas of knowledge. Imagination was often linked with disciplines such as poetry, music and painting (b–c). For Francis Bacon’s view on the role of imagination in the process of scientific inquiry, see Park 1984. In Renaissance poetical theory, the term ‘imagination’ was rarely used in connection with the creative process of writing poetry in order to avoid associations with madness and frenzy. The term ‘invention’ was often preferred, and its meaning shifted from the traditional rhetorical sense of ‘choosing the matter of discourse’ to a sense closer to the modern idea of ‘creative imagination’. Sometimes the concepts of imagination and invention were mentioned together (d–f). See Cocking 1991, ch. 9 and 10. Referring to the acts of imagination in emotions, Bacon argued that rhetoric can be helpful in mastering desires (h). In his quotation from Aristotle (*Politics* 1254b2–6) the term ‘appetite’ (*orexis*) is mistakenly rendered by imagination – an understandable mistake because the imagination derived its behavioural power from being the cognitive aspect of emotions (g). The idea of keeping imagination under the control of reason was not unusual; for example, Francesco Piccolomini wrote: ‘The imagination is subservient in the wise man, in whom it serves under the direction of right reason, but it rules and leads in animals and madmen’ (*In tres libros Aristotelis De anima lucidissima expositio*, f. 151v). See also 1b above. Robert Burton offers examples of melancholic imagination which is not controlled by reason (i).

3 The Power of the Imagination

a. Four emotions follow the fantasy: desire, pleasure, fear and pain. All these, when they are most intense, immediately affect their own body, and sometimes even another’s ... How noxiously does the desire to inflict harm by assiduous staring

fascinate boys and others who are easily influenced. How manifestly does the greediness of a pregnant woman bear upon the delicate foetus with the imprint of what she is thinking ... It is said that beasts existed among the western Ethiopians called catoblepas which would take people's life solely with their eyes, as basilisks do near Cyrene. So great is the power in the vapors of their eyes. Why should your body be less affected by the soul of another than by the body of another? Why not more affected, since the soul is more powerful and does not need a mean through which to act? We read that some men among the Illyrians and the Triballi used to do the same thing. When they were angry, if they fastened their eyes on a man for a long time, they would put him to death. They had twin pupils in each eye. Certain women in Scythia did the same. Such is the power of the imagination, especially when the vapors of the eyes are affected by the emotions of the soul. For this magnificent attention of the fantasy augments its power no less than the ostrich's eye riveted on its egg. For when one emotion becomes kindled, another settles down. Therefore in the attention of the malefic fantasy, the natural affection that binds the soul to its body decreases for a while, so that released from its body to a greater degree, it starts to transform the new matter towards which it has just been drawn, as if to some new body of its own. (Marsilio Ficino, *Theologia platonica de immortalitate animorum* II.196; 234–235)

b. Avicenna believed that somebody's imagination can make a camel fall. Images of dogs will appear in the urine of a patient with rabies. The desire of a pregnant woman impresses the mark of the desired object on the foetus in the womb or causes any malformation or monstrosities. The intention of a witch to inflict damage makes a man powerless by the fascination of her gaze fixed upon him; similarly, the gaze of the toad and basilisk can kill. Plague and leprosy are transmitted by vapours exhaled, the latter being the product of a morbid imagination. What is harmful is not the vapour itself, but the action of the soul which the vapour conveys – since the soul is superior in 'power, strength, fervour and mobility' to any such material as vapour. Hence the philosophers enjoin us to avoid traffic with evil and unfortunate men whose souls, full of noxious rays, infest with dangerous contagion those whom they reach. (Agrippa of Nettesheim, *De occulta philosophia* I.65)

c. 'A strong imagination begets the event itself', say the schoolmen. I am one of those who are most sensible of the power of imagination: every one is jostled by it, but some are overthrown by it. It has a very piercing impression upon me; and I make it my business to avoid, wanting force to resist it. I could live by the sole help of healthful and jolly company: the very sight of another's pain materially pains me, and I often usurp the sensations of another person. A perpetual cough in another tickles my lungs and throat. I more unwillingly visit the sick in whom by love and duty I am interested, than those I care not for, to whom I look less. I take possession of the disease I am concerned at, and take it to myself. I do not wonder that fancy should give fevers and sometimes kill such as allow it too much scope, and are too willing to entertain it ...

Now all this may be attributed to the close affinity and relation betwixt the soul and the body intercommunicating their fortunes; but 'tis quite another thing when the imagination works not only upon one's own particular body, but upon that of

others also. And as an infected body communicates its malady to those that approach or live near it, as we see in the plague, the smallpox, and sore eyes, that run through whole families and cities –

When we look at people with sore eyes, our own eyes become sore. Many things are hurtful to our bodies by this sort of transition

– so the imagination, being vehemently agitated, darts out infection capable of offending the foreign object. The ancients had an opinion of certain women of Scythia, that being animated and enraged against anyone, they killed him only with their looks. Tortoises and ostriches hatch their eggs by only looking on them, which infer that their eyes have in them some ejaculative virtue. And the eyes of witches are said to be assailant and hurtful:

Some eye, I know not whose, is bewitching my tender lambs.

Magicians are no very good authority with me. But we experimentally see that women impart the marks of their fancy to the children they carry in the womb; witness her that was brought to bed of a Moor; and there was presented to Charles, the Emperor, and King of Bohemia, a girl from about Pisa, all over rough and covered with hair, whom her mother said to be so conceived by reason of a picture of St. John the Baptist that hung within the curtains of her bed. (Michel de Montaigne, *De la force de l'imagination* in his *Essais*, trans. Charles Cotton (1685), I.20)

Following Avicenna, Ficino explains how the malefic fantasy may cause bodily changes in its environment (a). In his commentary on Plotinus, Ficino maintained that there are two ways in which imagination could be conceived: either as the lowest degree of the superior soul; or as the highest degree of the inferior soul (Marsilio Ficino, *Opera* (Basel, 1576), vol. II, 1548–1549). In the notes to his translation of Priscian of Lydia, he also argued that imagination is the instrument by means of which rational concepts can be visualised, and that imagination has a protean character capable of transcending the senses (Marsilio Ficino, *Opera* (Basel, 1576), vol. II, 1825). For fantasy and imagination in Ficino, see Garin 1985; Tirinnanzi 2000; for Avicenna's influence on Ficino and other Renaissance authors, see Zambelli 1985; Hankins 2007. A popular list of the power of imagination is also offered by Agrippa of Nettesheim (b); Michel de Montaigne typically mixes personal observations and various popular beliefs (c). The theory of generation that credited the mother's imagination with the shape of her progeny, whether normal or monstrous, continued to be the object of heated debate until the beginning of the nineteenth century. See Huet 1993, Wilson 1993.