

The 'physical prophet' and the powers of the imagination. Part I

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The 'Physical Prophet' and the Powers of the Imagination

Part I

A case-study on prophecy, vapours and the imagination

(1685-1710)

Abstract

I argue that the imagination was a crucial concept for the understanding of marvellous phenomena, divination and magic in general. Exploring a debate on prophecy at the turn of the seventeenth century, I show that four explanatory categories (God, demons, nature and fraud) were consistently evoked and I elucidate the role of the imagination in each of them. I introduce the term 'floating concept' to conceptualise the different understandings of the imagination and animal spirits in different discourses. I underpin my argument with a broader and less known discussion of the imagination. I argue that theories of the imagination, and particularly of the powers of the imagination, acquired negative associations and became linked with illicit magic in the Renaissance. Furthermore, I show that the relation between both animal spirits and imagination, and the power of the latter over external bodies, points to the importance of a 'history of vapours' and this suggests an adjustment to Hutchison's argument on occult qualities in mechanical philosophy. The accompanying paper (Vermeir, 2005) gives more evidence of these claims and elaborates on the relation between the natural and the moral.

Keywords: Prophecy; Divination; Imagination; Pneuma; Physiology; Magic; Occult; Vapours; Animal spirits; Preternatural; Floating concept; Keith Hutchison.

The wonder is not that older systems of divination should have lasted so long, but that we should now feel it possible to do without them.

Keith Thomas, Religion and the Decline of Magic (1971)

Introduction

On the third of February 1688, Isabeau Vincent, a fifteen year old Huguenot shepherdess of the Dauphiné, started to talk aloud about ‘wonderful and godly things’ while asleep. She called for repentance and prophesied with a loud voice, meanwhile experiencing bodily agitations and convulsions. A few weeks later, she started to preach in a trance by daylight too. As in biblical times, prophecy was extremely contagious. Within a few months, hundreds of children traversed the countryside of the Dauphiné, the Cévennes and the Languedoc, chanting and prophesying in ecstasy and transmitting this ‘gift’. An eyewitness wrote: ‘They all have the most beautiful physiognomy in the world; the girls resemble the angels in their beauty and tenderness when they are possessed by the charming and heavenly madness [mal].’¹ This was not the only event that enthralled the inhabitants of the South of France. In the same year, a dowser discovered that he could trace criminals with his special ‘gift’.² In a spectacular case four years later, he followed the trail of a murderer for several days, caught him and brought him to court. These events catalysed two important controversies at the end of the seventeenth century, which were similar in nature and which will form the basis of the two parts of this article.

Prophecy and dowsing are instances of divination, which is an important type of magic and means ‘discovering the hidden’.³ Divination traditionally included a wide range of practices,

¹ ‘Toutes ces personnes ont la meilleure physionomie du monde, les filles ressemblent à des anges en beauté et en douceur quand le mal charmant et céleste les prend.’ Cited in Crété (1992), p. 56.

² What this ‘gift’ meant for contemporaries depended on the different interpretations, but in the case-studies I consider, it was associated with the bodily complexions of the diviners.

³ Notwithstanding the numerous recent attempts at defining magic, I think that the general category of magic is impossible to ‘define’. Del Rio (1599-1600), I.2, defines magic as ‘an art or skill which, by the use of natural (i.e. not supernatural [or divine]) power, accomplishes extraordinary and unusual things, the manner in which these are done being such as to overwhelm people’s emotions and their capacity to comprehend.’ If we try to combine this with Della Porta’s notion of ‘natural magic’ in a paradoxical synthesis, we may grasp something of the meaning of ‘magic’, and the tensions inherent in the concept. See also *ibid.*, IV for ‘divination’.

such as prognostications from dreams, weather-forecasting and searching for hidden treasures. Our two cases drew on these older traditions but were also informed by their contemporary contexts. Different interest groups seized on these spectacular events to explain them and to bolster their world view. According to the recent secondary literature,⁴ these events should be classified as preternatural. I will argue, however, that this is not the best concept for understanding what was at stake. Contemporaries used categories which had informed similar debates about unusual events for centuries. Godly miracles, the cunning of the devil, hidden natural principles and human deceit were the explanatory principles that were persistently evoked. Giving due importance to these positions in a close analysis of two specific events will allow us to integrate the different perspectives which divide the current historiography across the history of wonder, demonology and medicine.⁵

I will do this by focussing on the role of the imagination in our case-studies. Walker assigned in his famous study Spiritual and Demonic Magic (1958) a central place to astrology and the imagination, which were in his view involved in every magical practice. This claim seems exaggerated and the occult properties of natural magic (such as the power of the magnet) were independent of man's imagination and the heavens. The current secondary literature on magic, however, seems to underestimate the role of the imagination, and I will argue that its role was crucial in many debates. To support this argument, I will intersperse my analysis of the case-studies with notions of the history of the imagination, which is in many ways still unwritten. This will also give me the chance to add an adjustment to Keith Hutchison's seminal argument,⁶ which analyses the transition of occult qualities from scholasticism to the mechanical philosophy, by pointing out the importance of an (also yet unwritten) 'history of vapours'.

The early modern concept of the imagination was very different from ours. It generally had not the exalted connotations of art, freedom and creativity that it acquired in Romanticism. It connected, however, different discourses and had the characteristics of what I will term a 'floating concept'. It was the highest material faculty of man, yet subservient to immaterial reason and intellect. The imagination was perceived to be the bond between body, soul and the outer world and was furthermore the pre-eminent social faculty as the source of our feelings of empathy. Interwoven with this was a (now little known) unorthodox tradition of

⁴ E.g. Daston and Park (2001); Clark (1997).

⁵ Daston and Park, Clark, and Brockliss and Jones all wrote excellent works, yet from very different perspectives which tend to obscure their interplay.

⁶ Hutchison (1982).

the powers of the imagination, which claimed that the imagination could work physically on external bodies, and I will argue that it became associated with atheism and illicit magic. It is often assumed that this tradition had ended by the end of the seventeenth century,⁷ but I will show that it informed the debates in a crucial, if sometimes concealed, way.

The end of the seventeenth century, Keith Thomas claimed, coincided with the ‘decline of magic’,⁸ and our case-studies will shed light on the possible interpretations of this process. It is increasingly becoming clear that this decline was in part a rhetorical change and Hutchison assessed Thomas’ thesis by arguing that, despite the rhetoric against magic, occult qualities became incorporated into natural philosophy.⁹ As we can deduce from the history of the powers of the imagination, the negative reputation of illicit magic gradually expanded over magic as a whole,¹⁰ and a strong rhetoric was employed to separate some branches from the ‘rotten trunk’. The ‘decline’ and ‘secularisation’ of magic is thus partly illusory and Schaffer, for instance, drew attention to the attempts to incorporate the spiritual in experimental practice.¹¹ In Part II of this article, I will focus on the attempts of the mechanical philosophy to include moral issues stemming from magic, and the place of moral qualities in nature and natural philosophy. This too has been neglected in the historiography of science, but it was a central concern for the participants of the debates I have analysed.

Children’s prophecies

The last decade of the seventeenth-century was a tumultuous time in the south of France. It was traditionally a stronghold of the Protestants, but they lived dispersed and their power and zeal had somewhat eroded during the century. Religion was not a priority anymore and the Huguenots were more absorbed in local interests. The Crown capitalised on this and gradually abolished their liberties and institutions. In the 1680s force and harassment became more explicit: royal troops were quartered in Protestant homes and were encouraged to terrorize their hosts; their churches and schools were closed, and they were ‘advised’ to convert to

⁷ E.g. Daston and Park (2001), p. 339; Cocking (1991); Kearny (1988).

⁸ Thomas (1973).

⁹ See Hutchison (1982) and (1983); see also Henry (1986); and Schaffer (1983).

¹⁰ Contemporaries’ conceptual tools for classifying phenomena were ‘too strong’, and with this I mean that it was possible to classify (almost) every phenomenon in every of the four categories (divine, demonic, natural or fraud), as we will see in our case-studies. Illicit magic could thus potentially always usurp the whole of magic.

¹¹ Schaffer (1987); and later works such as Fouke (1997).

Catholicism. Even before the formal revocation of the Edict of Nantes in 1685 (fig. 1), the majority of Huguenots had already been converted. Some clandestine circles still existed, however, and ‘the faithful’ believed that these harassments were the final ordeals which preceded the apocalypse and their ‘liberation’. These millenarian ideas were fuelled by the prophecies of Pierre Jurieu, an exiled Huguenot, whose letters circulated widely,¹² and they believed that the first signs of their rightfulness, that their creed was the ‘true faith’, were already apparent. Many people heard the sound of psalms and trumpets coming from the sky, and they assembled at night to hear the angelic voices.¹³

For them, the anticipated divine intervention came with Isabeau Vincent’s prophecies. Her words affected the conscience of the new converts and gave the suppressed a voice. The preachers and prophets who came in her wake were mostly children, women and idiots, but they gave the Protestants of the region, peasants or pauperized artisans, a renewed identity. After singing psalms, the prophets fell to the ground and cried in ecstasy: ‘I see the Heavens opened. O, how lovely the angels are.’ Another was beating her breast because the Holy Spirit was tormenting her, and a third claimed that the Spirit was at the end of her finger. They felt that the angels were all around them.¹⁴ Crowds gathered around the diviners and it became a ‘sacred theatre’¹⁵ with a social, dramatic and religious meaning. The authorities were aware of the threat: they imprisoned Isabeau and broke up the assemblies. In February 1689, the gathered crowd resisted the royal troops, convinced as they were of their invulnerability. One prophet even asserted that they were protected by a multitude of invisible angels ‘white as snow and tiny as a finger’.¹⁶ Yet the troops opened fire and killed some three hundred people. After this disaster, the movement went underground, to revive again after a decade. This led to the rebellion of the Camisards, which lasted for more than ten years, involving thousands of

¹² Jurieu, L’accomplissement des Prophetes, ou la delivrance prochaine de l’eglise (1686). See also the telling subtitle: ‘Ouvrage dans lequel il est prouvé, que le Papisme est l’Empire Antichrétien, que cet Empire n’est pas éloigné de sa ruine ; que la persecution presente peut finir dans trois ans & demi. Après quoi commencera la destruction de l’Antechrist, laquelle s’achevera dans le commencement du Siecle prochain : Et enfin le regne de Jesus-Christ viendra sur la terre.’

¹³ See e.g. the polemical descriptions in Jurieu (1988), deuxième année, lettre VII, 49.

¹⁴ Garrett (1987), p. 27.

¹⁵ Cf. Misson (1707), translated as The Cry; see also Garrett, (1987), I. I cannot expand on this interesting notion here.

¹⁶ *Ibid.*, p. 28.

people fighting against royal troops. It was an impossible war, which ended in decimation and exile.¹⁷

These prophecies and the newly found faith of the Huguenots took the Catholics by surprise, and they tried to explain it. The interpretations available, which followed the conventional categories in explaining wonders and drew on a long history of prophecy,¹⁸ were summarised by a contemporary: ‘Some people have treated this Event, as an Intrigue and Cheat; others as a Delusion, that weak Minds are easily capable of, in Matters of Religion; some have ascribed it, to a Possession by the Devil, others again to some bodily Distemper, which though natural, might have Symptoms alike surprizing.’¹⁹ Fraud, demonic possession and a natural illness of mind or body were perceived by many to be the three possible explanations of these wondrous phenomena. A fourth, divine intervention, was the preferred account of the prophets and their followers.²⁰ Crucial for deciding between these explanatory models were the bodily states of the prophets, who seemed to perform unnatural and almost impossible acts, such as preaching while asleep and strangely contorting their limbs. Traditional theology placed importance on the content and circumstances of the prophecies in distinguishing between divine, demonic and natural divination;²¹ the medical critique, however, which focussed on the bodily symptoms, gradually became more important, also in theology. In England the medicalisation of the ‘enthusiasts’ was championed by Burton, Casaubon and More.²² In France, on the other hand, the Catholic Church had incorporated visions, prophecies and apparitions within Counter-Reformation spirituality. The idea of a continuing divine intervention in the natural order was supported by

¹⁷ For the episode, see Garrett (1978); de La Gorce (1950); Crete (1992); Joutard (1976) and (1977).

¹⁸ On prophecy, see Walsham (1999); Nicolli (1990); Smoller (1994); Burns (2002). The debates considered of course drew on older controversies, such as the one on the weapon-salve (see Part II), and informed later ones such as Mesmerism and the case of the convulsionaries of Saint-Médard.

¹⁹ Excerpt of Beman’s History of the Edict of Nantes in Lacy (1707), p. 4.

²⁰ God, demons, human deceit and nature were the four causes involved. Natural causes could be distinguished into illnesses of body and mind (material versus spiritual). Those categories, however, were not always strictly separable and interacted in complex ways (e.g. psychosomatic phenomena; demons profited from human wickedness and deceit or from a mental illness).

²¹ Del Rio (1599-1600), IV.

²² As a reaction to the atheist threat posed by radicals, they still subscribed to the possibility of demonic intervention however.

the ecclesiastical elite and they published, for instance, the mystical experiences of a nun.²³ The occurrence of hostile prophets on their own soil, preaching against Catholic rituals and spirituality, therefore prompted shock and consternation.

The first reactions were diverse and disordered. Priests tried to exorcise Isabeau by means of holy water and her body was examined for signs of the devil,²⁴ yet without any apparent result. Even in prison she and the other children kept preaching and singing. They were examined by physicians, but these were mocked by the prophet's followers who claimed that the physicians were not able to find any disease. Flottard, a sympathizing witness, wrote sarcastically: 'The learned and famous College of Physicians at Montpellier judged otherwise of this matter [than the priests]. (...) As these Physicians were much more used to the Study of Nature, than to look into Things supernatural, they would neither affix the Name of Prophet, nor of Demoniack, to the inspired children; nor could they find sufficient ground to ascribe to them any bodily Distemper, as the cause of their Agitations and Discourses.' According to him, it was also impossible to see them as impostors, conspirators or idiots and the case left the physicians baffled. None of the explanatory models available for the physicians seemed to fit the case. Flottard concluded: 'those Doctors thinking it necessary to make Report and Judgement of the Case, as it became them for their own reputation; a Brand therefore must be fixed upon the Inspired, and no better one could be found than that of FANATICK, for in all Ages as well as ours, the Prophet was accounted Fool, and the Inspired a Madman.'²⁵

²³ Du Bois (1628); and many references in books published at the middle of the century. See Heyd (1995), pp. 74-75.

²⁴ Jurieu (1988, first published 1689), Troisième année, lettre III, 21: 'Elle prononce fort juste ce qu'elle dit de Latin & fort intelligiblement. Ses mouvements ne font points violents, elle ne s'agite point, elle sort les bras du lit & en fait quelques gestes fort bien réglés. Sa voix est claire & intelligible, mais sans éclat, elle remüe les levres, mais peu & sans aucune apparence de convulsion: des Medecins l'ont examinée dans cet état & non rien reconnu qui sente aucune maladie ni affection corporelle. (...) Elle a été transportée de lieu en lieu, tantôt à Cret, tantôt dans l'hospital de Grenoble tantôt dans un couvent, de filles qui est prés de Grenoble. Et par tout elle a continué de tomber en extase & de parler dans ses extases. On la rasée, on luy a ôté tout ce qu'elle avoit d'habits & de linges, pretendant qu'elle pouvoit avoir un charme caché quelque part : quelques Prêtres l'ont même exorcisée avec de l'eau benite, comme si elle eut été possédée. Mais rien n'u a fait, elle est toûjours la meme.' On the importance of the body in miracles, see Camporesi (1988); and Schaffer (1996).

²⁵ 'Testimony of Flottard' (1706-7) in Lacy (1707), pp. 74-78. Another strategy was to discredit the prophets by accusing them of sexual excesses and impertinencies. A movement of youngsters of mixed sexes which expressed themselves in extravagant behaviour and communicated the 'gift' by touching or kissing were particularly prone to these accusations.

De Brueys (1640-1723), a new convert himself who stayed loyal to his new Catholic faith, judged otherwise in the first well-orchestrated theoretical challenge to the movement. He argued that fraud was involved and his Histoire du fanatisme de notre tems (1692) was an elaborate conspiracy theory. According to him, the Protestant countries were worried because of the Catholic dominance and the many recent new converts. Therefore they waged war with France at its borders, used secret agents to make trouble inside the country,²⁶ and opened a school in the Dauphiné to teach 'the art to foretell'.²⁷ To kindle a political revolution, De Brueys thought, the Protestants needed miracles, and since heaven is not favourable towards them, they had to create these miracles themselves.²⁸ (Fig. 2) This interpretation was enhanced by the political context and by some of the prophecies, which were explicitly political in nature,²⁹ and De Brueys' book became the standard account of the revolution of the Camisards.

The physiology of prophecy was crucial in the arguments of both the prophet's advocates, such as Jurieu and Flottard, and their Catholic opponents. The former referred to biblical and historical accounts of similar bodily behaviour by canonised prophets. They claimed, furthermore, that this extraordinary behaviour could not be intentional, which ruled out the possibility of fraud. For the latter, it was an indication of fraud, demonic involvement or psychic illness. The latter two accusations could reinforce each other, because melancholic disposition and weakness of reason was often claimed to be a preparation for demonic intervention. Both were ascribed to a strong imagination, which stimulated strange fancies and clouded reason. The physiology of prophecy was dependent on a physiology of the imagination, and because the imagination plays a crucial role in the interpretation of

²⁶ Jurieu's role was crucial here. He had predicted that Willem of Orange would become king of England and that a new and better age for the Protestants was nearby. Some, however, claim that Willem got the idea to invade England from Jurieu. For a response in France, see e.g. the comments of Papin, an Anglican converted to Catholicism, in Journal des Sçavans (JdS) 26/01/1693: 'La tolérance des Protestants & l'autorité de l'Eglise, ou réponse au libelle de M. Jurieu.'

²⁷ 'Il leur chargea la memoire de plusieurs passages des Psaumes & de l'Apocalypse, leur apprit à faire des grimaces & des postures extravagantes, à battre des mains sur leur teste, à se jeter à la renverse, (...) & pour faire des imprecations contre l'Eglise Catholique, & contre les Prêtres.' JdS 21/06/1692.

²⁸ De Brueys (1709), p. xxv.

²⁹ The hopes of the Huguenots were directed to William, the new king of England. A female prophet, for example, saw him in a vision, coming to France through the sky together with one hundred thousand soldiers. Someone else predicted battles in Switzerland, that deliverance was coming and that they would be able to take protestant communion at Easter. Garrett (1987), p. 26.

prophecies and divinations, I now have to give a more detailed description of its nature and functions. I will show that the physiology of the imagination was important in people's understanding of the four categories invoked to explain divination.

Spirits and the imagination

Every period has its fashionable concepts which seem to be able to solve all problems. One might call such concepts 'boundary concepts' after Star and Griesemer's boundary objects, which are objects functioning in different discourses and connecting diverse groups of people. I prefer, however, to speak of 'floating concepts' because (contrary to boundary objects) they are only vaguely defined and have almost no meaning in themselves.³⁰ They are often not debated for their own sake, but their function is to make meaningful discourse on other phenomena possible. In the late seventeenth century, the animal spirits and the imagination were such 'floating concepts'. Both formed the mysterious connection between soul and body, but it was widely acknowledged that nobody could demonstrate anything more definite. Le Brun, an oratorian theologian, defined the animal spirits in a small glossary as a 'fluid of a subtle nature'³¹ and Nicholson, physician and apostate French Prophet, wrote about 'this Juice, whatsoever it be.'³² Despite (or better, because of) this vagueness, these spirits functioned in the most diverse contexts, from medical to fictional literature,³³ and were invoked to solve all kinds of problems. Imagination and animal spirits were intimately connected. Sir Kenelm Digby, famous for his treatise on the weapon-salve, wrote that these 'intern spirits' served as 'centinells, to bring their discoveries to their General, viz. to the

³⁰ Star and Griesemer, (1989). Without necessarily taking all their theoretical bias, they make the interesting point that some objects make communication between very different contexts possible, without necessarily presupposing a consensus about these objects. According to them, these objects are 'robust enough' to make this possible and to keep their identity. I argue that some concepts lack a (robust) identity, but by their constant use in different contexts they make meaningful talk in these contexts possible; they 'create' meaning. 'Magnetism' is an example for the eighteenth century, 'postmodernism' would be a good contemporary example.

³¹ Le Brun (1702), p. 46. (cf. *infra*)

³² Nicholson, A Brief Treatise of the Anatomy of Humane Bodies (1709); cited in Schwartz (1978), p. 32. Bohn, an anatomist from Leipzig, considered in his Circulus (1710) the nature of animal spirits to be similar to light (after Willis), or air (after Mayow), but decided in favour of a similarity with fluids. Things were even more complex since animal spirits became confused with the other kinds of spirits during the seventeenth century (see the argument in Putscher (1974)).

³³ E.g. Van Sant (1993); see Frasca-Spada (2003) for more references.

imagination, who is as it were the Mistressse of the whole family.’³⁴ The imagination orchestrates and works by means of the animal spirits. Both acquired, however, their meaning mainly from the context in which they were evoked. The physiology of the imagination was evoked to explain, for instance, the workings of mental images, physiology, voluntary movement, illusions, magic, fascination, divination, moral qualities, passions, cognitive errors, mental illnesses and witchcraft. In the next paragraphs, I will elucidate some of these connections that are relevant for our discussion.

In the first century AD, Galen, the court physician of the Stoic emperor Marcus Aurelius, laid the foundations of the medical system that would be dominant until the late seventeenth century. He combined elements of Aristotelianism, Neo-Platonism and particularly Stoicism when he identified the pneuma or animal spirit as the instrument of the soul. In his system, the blood transports the innate heat necessary for life together with the vital spirit (pneuma zoötikon) which vivifies the organs. The vital spirit is made from air and the vapours of the humours in the heart. When it passes through the ventricles and fine blood vessels of the brain, it is rarefied and combined with air to yield the animal spirit (pneuma psychicon), which consists of the most subtle matter. This animal spirit is then transported through the nerves to the senses and muscles, and it performs the functions of what we now call the ‘nervous system’. The essence of this scheme was unchallenged for centuries and still dominated medical and philosophical thought in the seventeenth century.³⁵ (Fig. 3 & 4)

Galen’s pneumatology was essentially Stoic in origin and could easily be combined with other Stoic ideas. Renaissance physicians and philosophers like Ficino revived a combination of Stoicism and Neo-Platonism, which informed alchemy, hermeticism and magic; yet particularly divination and astrology belonged to the Stoic tradition.³⁶ In this system, the

³⁴ Digby (1658), p. 89.

³⁵ See Sudhoff (1913) and particularly Park (1974) (unfortunately unpublished) for an interesting overview of the Renaissance medical theories of the imagination. For the terminology of Phantasia versus Imaginatio in philosophical texts, see Fattori and Bianchi (1988), and for more on Pneuma, see Verbeke (1945) and Putscher (1974, esp. the chronological bibliography).

³⁶ Osler describes the popularity of Stoicism during the ‘Scientific Revolution’ as a ‘substitution of one set of ancient models [Epicureanism and Stoicism] for another [Aristotelianism]’ (Osler, 1991, back flap). As Barker (1991) attests, these Stoic influences are highly neglected in the history of science. Astrology and divination have a special place in the Stoic world system, and were transmitted in their own right, e.g. through the works of Manilius and Cicero. For secondary literature on hermeticism, see Copenhaver (1990). In principle, Stoicism and Neo-Platonism are antithetical because they are respectively monist and dualist. There exist, however, various

animal spirits were similar to and could interact with the subtle 'Spirit of Nature'. They flowed through the arteries together with the blood, but were not limited to the human body, and could leave it.³⁷ These ideas became intertwined with Epicureanism and a long tradition of theories on vapours and exhalations, emitted by natural objects or the stars. They were still present in the seventeenth century, for instance in the works of the Cambridge Platonists and in Newton's aether theory.³⁸ Related ideas of a sensitive and even thinking matter were prominent too. The famous physician Thomas Willis (1621-1675), for example, based his medical theory on his anatomical work, and defended 'active matter' and a lower soul that could perceive and reason, against 'Cartesian inertness.'³⁹ The physician Francis Glisson (1597-1677) considered the 'energetic nature of substance' and based his idea that matter was inherently active and even sentient on the medical tradition of pneumatology.⁴⁰

As Digby implied, the imagination was master over the spirits, and this was proved most forcefully by the curious phenomenon of the impact of the mother's imagination on the unborn child.⁴¹ It was a common belief (described by many, such as Della Porta and Digby himself) that when the mother imagined something, accompanied with a strong passion, this image would be transported by the animal spirits through the body of the mother to the child. The mother was mature and not malleable anymore, but the unborn child was still developing and susceptible to formative impulses.⁴² This implied that the animal spirits of the mother (which ran through the foetus) could impress the image they carried on the child. When a pregnant woman longs forcefully for mulberries, the image of a mulberry might become impressed on the skin of the unborn child.⁴³ Sometimes monsters could be brought forth in

hybrid theories, particularly due to the ambiguous status of the *pneuma* or 'spirit' and the different stages in *emanatio* and *recollectio*.

³⁷ In Neo-Platonism, the soul had three 'vehicles': i.e. a bodily, airy and ethereal envelope. The idea of a 'vehicle' of the soul comes from Plato. See Verbeke (1945), p. 520.

³⁸ See Fouke (1997).

³⁹ The expression is mine. See Willis (1683, first published 1672).

⁴⁰ See Henry (1987).

⁴¹ Very good illustrations and analyses of this trope can be found in many of Park's articles and in Daston and Park (2001).

⁴² Park (1998) seems to suggest that women were malleable. I would argue that the formative power of the man shapes the foetus, not the mother; and the mother did not impress images on herself, but on the child, because she herself was far less malleable. See Digby (1658), p. 97: '[the images] make a profound impression, and lasting mark, upon his delicate skin, whereas that of the mothers was more hard.'

⁴³ E.g. Digby (1658), p. 96.

this way. Digby gives even a stronger example in which a public decapitation of a criminal made such a strong impression on a watching pregnant woman that not long afterwards she gave birth to a child of which the head was severed from the body.⁴⁴ I will later expand on the powers of the imagination, but I will first proceed with showing that the spirits and imagination played an important role in the different explanatory models for prophecy and divination.⁴⁵

Natural divination was explained by Stoic and Epicurean conceptions such as the exhalation of pneuma or the emanation of idola by objects and their causes, affecting the spirits in the imagination. In Stoicism, the animal spirits or pneuma psychicon was akin to a divinatory pneuma, which was a fire-like breath permeating the whole world, and which caused religious ecstasies and visions in the imagination.⁴⁶ The animal spirits were also the keynote of the ‘spiritual magic’ championed by Ficino.⁴⁷ Traditionally, in the magical papyri and hermetic texts, magic tried to control the pneuma, which connected the human spirit and the imagination with the cosmos, and which could be captured in statues, or employed for practical goals. These theories were transformed by Ficino and later Neo-Platonists in a less unorthodox medical theory combinable with Galenism.⁴⁸ Even in the middle of the seventeenth century, the ‘sceptic’ Casaubon, who reacted so strongly against enthusiasm and explained it as an illness of the imagination, still thought natural divination to be possible; and experimental philosophers such as Boyle sought natural explanations for ‘second sight’.⁴⁹

A troubled imagination was also central in the diagnosis of mental illnesses. A strong imagination overwhelmed reason and could cause disturbances in the animal spirits, thereby confusing the perceptions and passions. Furthermore, the imagination was material and

⁴⁴ Digby (1658), p. 109.

⁴⁵ I will not elaborate on the evident role of the imagination in human deceit. Imagination is important in imaginativeness and shrewdness, but also in human wickedness (the imagination tempts and incites to follow desires instead of reason).

⁴⁶ See e.g. Chrysippus and Posedonius for Stoicism and Porphyrius and Iamblichus for Neo-Platonism. The cessation of the oracles was explained by geological changes (see Plutarchus). During the early Middle Ages, Christian philosophers ‘spiritualised’ this originally material principle in different degrees, which opposed them to the more materialistic physicians.

⁴⁷ See Walker (1969) and (1985).

⁴⁸ According to Ficino, theurgic purifications dematerialised the subtle matter of the human pneuma, to cure the patient or to make him fit for the afterlife. See Ficino (1989); and More’s and Cudworth’s notions of the ‘Spirit of Nature’ and ‘Plastic Nature of the Universe’.

⁴⁹ See Heyd (1995); Hunter (2001).

dependent on the bodily states: disorder in the humours caused fabulous visions and false ideas. Burton's Anatomy of Melancholy (1621) made these ideas popular in seventeenth-century England. He wrote: 'That melancholy men and sick men conceive many phantastical visions, apparitions to themselves, and have such absurd suppositions, as that they are kings, lords, cocks, bears, apes, [...] can be imputed to naught else but a corrupt and violent imagination.'⁵⁰ The physicians du Laurens, Charron and Lemnius made similar theories prevalent at the continent.

The animal spirits played also an important part in angelology and demonology. It was problematic for theologians to explain how 'purely intellectual beings' like demons or angels could act in the sublunar material world, so they granted them a material pneumatic part in the form of ethereal and sometimes aerial 'vehicles'. They are visible, dependent on the density of this 'spirit' and can acquire different shapes.⁵¹ The pneumatic body, which was often identified with the animal spirits,⁵² is plastic and mouldable and takes the form of the representations in the imagination of the demons.⁵³ It is malleable similar to the foetus, which is susceptible to the imagination of the mother. Analogously, demons act on humans by disturbing their animal spirits and imagination;⁵⁴ they cause strange fancies and delusions and tempt man into moral error. Angels also affect the humours and animal spirits, to project true prophetic visions and God's message into a purified imagination. But angels do not deceive, Thomas had argued, because they simultaneously enlighten the intellect to make true interpretations of the visions possible.⁵⁵ The imagination also had magical meanings, which I will explain in a later section. Witches, for instance, used their imagination to emit animal spirits from the eyes, which bewitched little children.

These examples demonstrate that the concepts of animal spirits and imagination connected different discourses, and the different explanatory models for divination. This was possible

⁵⁰ Burton (1989-2000), 1:255.

⁵¹ See e.g. Del Rio, who describes how demons acquire visible shapes by drawing vapours and exhalations to them. Del Rio (1599-1600), II, 28.2. The theory of the vehicles was not always adhered to, but similar theories were inevitable for explaining their action on matter. Other demonologists referred to 'local motion' in this context, but this particular concept was also used to explain the action of the imagination on the body (cf. infra).

⁵² Webster (1678), XVII-XVIII.

⁵³ See Verbeke (1945), p. 372.

⁵⁴ Keith (1707), p. 55.

⁵⁵ See Bundy (1927), p. 221.

because of the imprecision and instability of these floating concepts.⁵⁶ Early modern philosophers, physicians and magicians drew eclectically on these different notions, which often stemmed from older traditions. If one was to generalise these conceptions of the imagination, one might say that the imagination represents the dark side of reason. Particularly for those opposed to magic and enthusiasm, it was associated with illusion, sin, demons, mental illness and, as we will see below, illicit magic. The tenor of the medical tradition itself, however, had always been naturalistic, and simultaneously with the increasing influence of the medical viewpoint, materialistic explanations gained ground. In late seventeenth-century France, medicine at the universities tended to focus on the mechanical workings of the spirits and the imagination, both of which were invoked to explain the curious behaviour of the prophets.

The medical critique

At the end of the seventeenth century, French medicine seemed to undergo rapid change. In the 1680s the Galenism of Fernel was overthrown by iatrochemism, and in the 1690s this in its turn was replaced by iatromechanism, or sometimes even by a pure Cartesian variant.⁵⁷ As usual, Montpellier took the lead, and soon the more orthodox University of Paris ‘capitulated’. The new theories accepted an uncompromising Cartesian dualism between matter and soul; practically, however, remedies and diagnoses often stayed the same and the academic discipline was only ‘wrapped up in a new explanatory suit of clothes.’⁵⁸ The basic Galenic ‘animal oeconomy’ was still unchallenged, despite much discussion on specific points. Most of the literature on mental illness from the 1690s was mechanistic and instead of references to the imagination we find a terminology of ‘brain fibres’.⁵⁹ Lange, for instance, a physician of the Académie Royale, wrote in his Traité des Vapeurs (1689) that hysteria,

⁵⁶ Both animal spirits and imagination could, for instance, take varying positions on the following axes: corporeal-spiritual, body-soul, inner-outer, etc.

⁵⁷ See for this evolution Brockliss and Jones (1997), pp. 140-150, 418-433. Fernel (1485-1558) reformed Galenism and made it a flexible theory, which comprised ‘occult diseases’ and Paracelsian influences. Iatrochemistry takes a ‘chemical’ view on the body and medicine as opposed to the Galenic theory based on the four humours. In iatromechanism, the body is seen as a machine but chemical remedies were still applied. A pure mechanistic theory explained everything as a mechanical process (digestion as grinding, etc.).

⁵⁸ *Ibid.*, p. 421.

⁵⁹ There is a curious neglect in Brockliss and Jones of mental illness before the eighteenth century and also of the occult in general.

melancholy and other psychical illnesses are caused by different ferments and salts, and can be explained in a purely '[iatro-]mechanical' way.⁶⁰ Chastelain, counsellor of the king and physician of the University of Montpellier, criticised in his Traité des convulsions (1691) Willis' theories. He argued that convulsions are caused by explosions of an inflammable mixture of animal spirits and a 'strange matter' [matiere estrangere] which happens in the muscles and does not have to pass through the brain. Chastelain also disagreed with Willis' distinction that blood and the animal spirits cause deliberate and mechanical movements respectively. He argues that the blood can cause convulsions, which implies that they do not necessarily stem from nerve disease.⁶¹ These theories had consequences for the interpretation of the physiology of prophecy: convulsions were not necessarily a sign of madness, and dismissing Willis' clear cut difference between voluntary and involuntary movement allowed the possibility of self-induced convulsions (or fraud). Medical practitioners and polemicists negotiated the latitude of 'floating concepts', which could be used to reinforce or dismiss certain political arguments. Judgements of sanity or insanity had important reverberations for the attribution of responsibility and the possibility of orchestrated resistance. The possibility of inducing convulsions or ecstasies deliberately had always been a point of debate,⁶² and could be used to legitimise the prosecution of agitators.

Inspired by the secularising power of the medical explanations of the physicians, De Brueys also gave a, yet belated, medical interpretation of the events in the Cévennes. This he published as a preface to a later edition of his Histoire du fanatisme.⁶³ According to him, fanaticism was related to melancholy and was caused by the animal spirits which bumped incessantly against the brain fibres. These animal spirits did not always have the same force on the brain, and variations could cause the sudden fits, convulsions and fevers. This, however, still leaves the rapid spread of the prophetic 'gift' mysterious. De Brueys explained this by pointing at the effect of wondrous events on the feeble minds of the credulous devout,

⁶⁰ Interestingly, a review judges it necessary to distinguish its subject from the Stoic-like 'vapours which are continuously elevated from every body by the action of the stars'. JdS 9/05/1689.

⁶¹ Chastelain (1691): 'Le matière convulsive passant avec le sang dans les fibres motrices, pent avec les esprits faire l'explosion convulsive, sans qu'il soit besoin qu'elle passe par le cerveau & par les nerfs' (pp. 93-94); 'Il est bien vray que l'irritation des nerfs qui cause des convulsions est une maladie des nerfs; mais le mauvement déréglé que les esprits reçoivent à l'occasion de quelque matière étrangere qui se mêle avec eux, & qui les fait fermenter autrement qu'ils ne doivent, n'est pas une maladie des nerfs' (p. 113).

⁶² Casaubon, for instance, tried to refute Fienus' view that it was impossible to induce these symptoms deliberately. Lacy would later argue that it was impossible for children to 'work up their fancy'.

⁶³ I used the 1737 edition, but this preface must have been written before 1723, the year of his death.

affected by admiration.⁶⁴ He did not abandon his conspiracy theory, however, and supposed that one could teach these hysteric fits to the susceptible. Only the vulgar, who had no notion of medicine, could mistake the melancholic frenzies for supernatural effects.

Jurieu had already tried to counter the medical critique by stressing the serenity and holiness of Isabeau's behaviour, to prevent accusations of madness. He had been sceptical too, but after eight months of questioning and intimidation of the prophets, he argued, the 'facts' still stood, notwithstanding all denial.⁶⁵ The fact that Isabeau did not remember anything of her prophecies when she woke up, and relapsed into her ordinary Languedoc dialect and state of ignorance,⁶⁶ was for Jurieu a crucial indication that God's intervention did not enter her brain and did not affect her internal senses.⁶⁷ There was no possibility of madness or fraud, because neither the imagination nor the brain was involved; on the other hand, the symptoms of prophecy could not be caused by purely mechanical means either. 'But divine reasoning and talking', he wrote, 'without having apprehended anything; and without the images of what one has said being impressed in the machine of the brain: this, I say, is completely beyond the powers and actions of a machine.'⁶⁸ The mechanical philosophy, which pervaded the intellectual climate, seemed to exclude spiritual interventions, yet Jurieu adopted it to bolster his religious interpretation. He argued that some phenomena could not be explained in mechanical terms, which necessarily pointed to a divine intervention.

Medical theories often refrained from mentioning the imagination in their analyses, because the connotations of this faculty were still too spiritual for their mechanistical bias. In

⁶⁴ For such a theory, see e.g. Malebranche (1997), II.3.

⁶⁵ Jurieu (1988), p. 23: 'Mais un événement perseverant durant huit mois, que tout le monde a eu la liberté d'examiner avec soin, & sans prevention, jamais, dis je, un tel événement n'a produit une fausse notoriété.'

⁶⁶ The speaking of a different language was very important because of the traditional dispute whether this could be fraudulent or due to an illness. Glossolalia was also a characteristic of the apostles and some authentic prophets.

⁶⁷ 'Quoy que les mouvements & des actions que le S. Esprit fait en elle ne fassent point d'impression sur son imagination & sur la memoire, puis qu'elle ne se souvient de rien, il est pourtant vray que son bon sens s'est developpé & perfectionné par là. Car au commencement après son réveil elle paroisoit retomber dans sa simplicité naturelle, & dans l'ignorance où est une bergere, & une paysanne sans education, & dont on avoit entierement negligé l'instruction' (Ibid., p. 21). This disproves that 'son imagination échauffée les produise durant le sommeil' because this should leave impressions on imagination or memory (Ibid., p. 24).

⁶⁸ Ibid., p. 24: 'Mais raisonner & parler divinement, sans avoir rien appris & sans même que les images de ce qu'on dit demeurent imprimées dans la machine du cerveau: cela, dis je, est entierement hors des forces & de l'action de la machine.'

contrast, the review of a recent translation of Augustine's Sermons in the Journal des Scavans (1694) indicates that the imagination was an important point of discussion. The reviewer asks whether the use of eloquence and the imagination is appropriate for sermons. He denounces modern preachers and argues that real eloquence excels because of clarity, which is dependent on reason not imagination.⁶⁹ The review is then almost entirely devoted to a discussion of the imagination, which gives us a rare view on its common meanings, and is directly applicable to the situation in the Dauphiné. The imagination, the reviewer writes, is an internal sense and has as its function the reception and representation of images. It is the first faculty at work after birth, before sense perception and reason, and is therefore particularly strong in children. Normally, the intellect gradually takes over its importance in judging, but it is usual that the vulgar do not make this transition and cannot free themselves enough from their imagination. People with a dominant imagination are prone to rhetoric and persuasion. The imagination is particularly a source of illusion and error if used in spiritual matters (such as religion or mathematics). The reviewer concludes that precisely those with a prevailing imagination (i.e. children, women and the vulgar) are susceptible to the persuasions of false preachers and prophets.⁷⁰

'Imagination', 'reason' and 'spirits' were not ordinary objects with a certain stability of their own; distinctions were difficult to draw and always somewhat arbitrary. This explains why the conceptualisation of these 'floating concepts' had particularly been prone to influences from gender and social divisions. The dualistic distinction between imagination and reason (corresponding to the animal and 'divine' parts of man) was strongly underdetermined but rigorously executed, and imbued with social meaning. The educated identified themselves with reason, while 'the other' and 'the incomprehensible' was relegated to the realm of the imagination. Indeed, women, children, idiots and melancholics were commonly perceived to have a strong imagination that clouded their reason, and caused illusions and moral error. Flottard, however, reversed this argument by invoking another tradition, which associated melancholy with studiousness.⁷¹ He referred to the illiteracy of the

⁶⁹ He writes on the imagination : 'Ce n'est donc qu'une voye d'illusion & d 'erreur, que donne une fausse idée de la parole de Dieu.' JdS 07/06/1694.

⁷⁰ 'C'est cependant à des hommes qui se laissent conduire par cette dangereuse faculté [l'imagination], que s'adressent les Prédicateurs. C'est à des esprits disposez de cette sorte, qu'ils ont à proposer des choses spirituelles, invisibles, & infiniment éloignées de tout ce qui a rapport aux sens.' Loc. cit.

⁷¹ For melancholy, see Klibansky et al (1964), and the huge literature on this topic.

prophets to argue that they could not be melancholic, because no ‘deep and over-curious Searches into the Prophetic Parts of Scripture, had intoxicated their brains.’⁷² (Fig. 5)

The English case

When the movement of the prophets in the Cévennes and Dauphiné was crushed by the royal army in 1704, only a few groups of fighters remained in the mountains and caused sporadic disruptions. Many of the prophets and their followers dispersed over protestant Europe. In most countries, they disappeared imperceptibly into the local population, but in England their movement revived and changed its nature. At first, they were coolly received in London; even Huguenot refugees turned against the ‘French prophets’ and a history of oppression and public humiliation started anew.⁷³ The movement gained new momentum after some English followers started to prophecy and to perform miracles.⁷⁴ In their adaptation to the new environment, the political associations disappeared and prophecies became exclusively religious warnings for the near apocalypse.

The public debate about these prophecies evolved much in the same terms as the debates in France. Lacy, an English Presbyterian turned prophet, distinguished again the four possible explanations of prophecy: the Holy Spirit, satanic delusions, disease or contrivance. Again, the bodily states of the prophets were crucial in determining their supernatural status. Instead of theology, medicine and natural philosophy set the terms of the debate. Lacy gave a detailed bodily analysis of the prophets and denied that they had the symptoms of madness, enthusiastic melancholy or epileptic convulsive fits. According to him, the prophets were usually healthy and felt refreshed after their ‘possession’, nor were they in an elevated state of the imagination. All strong operations of fancy must be generated by a desire of the soul, but he claimed that this desire was often lacking in the prophets. He supported this by stating that those with an ardent desire often did not receive the Spirit at all, and the prophet-children

⁷² Flottard in Lacy (1707), pp. 74-78.

⁷³ The association between prophets and sexual impertinencies was also common, and was informed by the memory of the Anabaptists of Münster and similar episodes. Often, Camisards were not married for the (Catholic) church and were blamed for promiscuity. The French Prophets were also accused of indecent behaviour and polygamy, and it was widely remarked that male prophets had always several adoring female followers around them.

⁷⁴ For more details on the English episode, see the excellent Schwartz (1978).

were innocent and did not know yet how to work up their fancy.⁷⁵ The claims that there was a contagion involved, Lacy dismissed as ludicrous; ‘as if prophecy was a disease like the plague!’ There were no secret particles flowing between the bodies of the prophets, as in sympathy and antipathy, spreading ‘the gift’.

This, however, seemed more plausible to other contemporaries, and it is at this point that the debate took a different turn than in France. The popularity of the prophets could not so easily be explained away by reference to a political opposition, as was the case with the struggle of the Camisards against Louis XIV. Why were millenarianism and prophecy so attractive in a society tolerant to different faiths? It was perceived that the prophets could convert people by looking into their eyes or by just being present, by which they received the ‘spirit’ and could experience visions and bodily affections too. In a crucial passage, George Keith, a former Quaker turned critic, evoked once more Ficino’s theories of the powers of the imagination in order to explain the contagiousness of prophecy.⁷⁶ The Quaker concentrates himself and recollects his scattered imaginations,⁷⁷ wrote Keith, and ‘being joined with some strong Passion of love, desire, &c. it [the imagination] obtains a great dominion over the Animal Spirits in that Man at will to command them, whither to go, and to carry the impression with them, or signature of what it imprints on them, and also the imagination thus fortified and exalted gives great vigor and force, or vivacity to the Animal Spirits, to penetrate at their efflux from their proper Bodies, into the Bodies of other Men.’⁷⁸ To explain this surprisingly physical explanation of the contagiousness of prophecy, we must elaborate briefly on the powers of the imagination.

Vapours and the powers of the imagination

There was a long tradition which expounded the powers of the imagination, and which has been neglected in the historiography.⁷⁹ Pointing out some important stages in this history will

⁷⁵ This is contrary to the normal argument on children and imagination.

⁷⁶ He also draws extensively on the authority of Bacon, who had written on the power of the imagination in his *Natural History*. Agrippa and Paracelsus are also mentioned, but ‘to quote their Authorities might rather prejudice the Cause, than help it.’ Keith (1707), p. 77.

⁷⁷ He compares this with the classical magical example of the burning mirror. *Ibid.*, p. 41.

⁷⁸ *Loc. cit.*

⁷⁹ For a general history of the imagination till the Middle Ages, see the standard work of Bundy (1927); see also the highly derivative works of Cocking and Kearny. Their main defect is that they are almost exclusively

also give me the chance to add an adjustment to Hutchison's argument, which analyses the change of scholastic occult qualities into the whirls of atoms of mechanical philosophy.⁸⁰ I will argue that a 'history of vapours' will give a much more nuanced view. In scholastic philosophy already, vapours were often used to account for occult phenomena, yet the distinctions between vapours of natural objects, blood, sweat, animal spirits, divinatory pneuma, ferments and other substances were often blurred, and this tradition was conflated with the powers of the imagination.

In contrast to the Arab philosophers, who granted the soul extraordinary powers over matter,⁸¹ scholastic philosophers followed Aristotle in stating that the imagination can only act on the body through 'local movement'.⁸² This meant that it could only indirectly influence the body and the outer world by means of vapours and exhalations. Based on Stoic ideas, but perfectly acceptable within an Aristotelian framework, subtle vapours flowed between the body and its environment.⁸³ This must be seen in a wide context of odours, venomous infections, and 'occult' exhalations, and was connected with different examples from natural history, such as the Basilisk, which could kill with its breath or glance. Jonstonus (1603-

interested in an artistic or creative imagination of the 'Romantic' kind. Fouke (1997) has one section on the powers of the imagination in Vaughan; and Walker's and Park's (unpublished) work gives good complements for medicine, but an integrative study is still lacking.

⁸⁰ Hutchison (1982).

⁸¹ Avicenna and Al-Ghazali asserted that the power of the imagination was not confined to the body, but could act directly on other objects because of its ontological primordality. In Al-Kindi's worldview, everything emits rays, and the mental images emitted by the imagination can have the same physical effects as the objects they represent. Their views were received as highly unorthodox in Christian Europe, and in the subsequent literature these 'Saracens', 'Mahometans' or 'Enthusiastical Arabs' were always cited and condemned. See Webster (1678), p. 321. See also Bundy (1927).

⁸² The movement is passed on through many intermediary stages, involving the humours, animal spirits and vapours. See e.g. the analyses of fascination in Nicholas Oresme's (1320-1382) De configuratione qualitatum and Engelbert of Admont's (ca 1250-1331) De fascinatione. According to both authors, the imagination alters the body, which in its turn affects the surrounding air and other bodies, especially by means of the eye. The imagination must act by the mediation of something vaporous, in part spiritual, in part corporeal, which is identified with the 'visible spirit'. See Thorndike (1958), vol. 4, p. 424-439. The opinion that the mind has direct control over matter (see note 81) had been condemned at Paris in 1277. For a seventeenth-century book on fascination see my comments on Frommann in Part II of this paper.

⁸³ See e.g. the experiments of Santorio (1561-1636). Since then it was a commonplace that the body loses a lot of matter through invisible pores (since the food ingested outweighs the excretions), a phenomenon often referred to in our case-study on dowsing (Part II).

1675), for instance, writes in his History of the Wonderful Things of Nature: ‘for certain it is, that there are many effluxions of things.’⁸⁴

Ficino (1433-1499) combined the powers of the imagination with medical theory in a coherent fashion. Drawing on Stoic and Neo-Platonic sources, he construed a theory of ‘spiritual magic’. According to this theory, the pneuma or material vapour which flows through our nervous system is akin to the (Stoic) cosmic spirit and can attract it to purify our soul. The imagination becomes the central power in spiritual magic; it is active, and dominates the body through the mediation of the spirits, which affect in their turn the passions and humours. A further step was taken by Pomponazzi (1462-1525), a strict Aristotelian of the Paduan school, when he tried to deny the existence of demons. To explain naturally all the wondrous things that were reported in his time, he needed a ‘strong’ theory of ‘natural magic’. He expanded on Ficino’s spiritual magic and attributed to the imagination a power over external objects: ‘nothing precludes that similar effects can be exteriorised in the body of another.’⁸⁵ He generalizes the examples of natural history, in which is told that rhubarb purges bile by means of vapours, into a principle that applies also to humans. If a natural object can possess occult qualities or can act through vapours, a human being can too. According to him, physicians often cure patients, not by their suspicious remedies, but by insensible vapours they exhale. The imagination can even affect inanimate objects; when the imagination is strengthened by credulity or faith, for instance, the ‘spirits’ are affected and vapours emitted, which can end rainfall and can cause apparitions in the sky.⁸⁶

Ficino’s as well as Pomponazzi’s texts were widely influential, though in different ways.⁸⁷ Ficino’s work was important as the start of a Platonist renaissance. Pomponazzi became known as an arch-atheist, because he gave natural explanations of Catholic miracles. A cure caused by a relic could as well be caused by the bones of a dog if only the faith of the believer was strong enough. On top of this, he used his theory of the imagination to argue against the existence of demons and against the immortality of the soul. His theories were widely cited

⁸⁴ Jonstonus (1657), p. 344.

⁸⁵ Pomponazzi (1930), p. 129: ‘bien que ce soit par les espèces dans l’âme, par les passions en nous et dans les corps où on les trouve que se produisent ces effets extraordinaires, rien n’empêche que des effets semblables soient extériorisés dans le corps d’autrui.’

⁸⁶ Pomponazzi (1930), pp. 227-229. He considers Avicenna’s theory, but prefers the ‘peripatetic’ theory of occult qualities and vapours. Also astral influences are important to explain the occult powers of objects and humans.

⁸⁷ For the reception of Ficino’s spirit theory, see Walker (1969); for Pomponazzi see Busson (1930).

and decried in demonologies and works on the imagination.⁸⁸ Thereafter, the powers of the imagination were associated with the most dreadful atheism. It was evoked by ‘radicals’ and naturalists who argued against the existence of demons. In England, Reginald Scot’s naturalisation of witchcraft (The discoverie of witchcraft 1584, 1665³) provoked a long-lasting controversy with which the name of Pomponazzi was sometimes associated.⁸⁹ For a long time, giving the imagination extraordinary powers was the standard means of denying the actions of demons and witches; ‘that it can at distance work upon another body’, wrote Webster in his Displaying of supposed witchcraft (1678), ‘though denied by Fienus and the whole rabble of Schoolmen, yet is strongly proved.’ The Astral Spirit, which makes up our sensitive or corporeal soul and consists of Fire and Air, ‘wanders in the air, and without doubt doth make these strange apparitions, motions, and bleedings.’ Witches do not make any contract with the devil, but work these marvels by the ‘mere natural means’ of ‘natural imagination’.⁹⁰

The theory of the powers of the imagination was also of ill repute because of the association with the ‘magicians’ Agrippa (1486-1535) and Paracelsus (1493-1541). Both granted the exalted imagination an important role in their works; both used a vapour theory similar to Pomponazzi’s together with the highly unorthodox theory of the Arabs to account for its powers.⁹¹ Agrippa explains that vapours can be emitted from the body and affect other bodies,⁹² but the mind is so strong and independent of the body that it can also affect things without an intermediary.⁹³ Because of their work, the imagination became the central power of the magus, and the general opposition to their writings became also an opposition to the

⁸⁸ See e.g. the most influential works in both genres, respectively Del Rio (1599, I.3.3) and Fienus (1608, p. 175) (see note 90): ‘Ad illud quod dicitur de appensis & amuletis, respondeo, illa plerumque esse superstitiosa, & ideo operari non in virtute imaginationis, sed in virtu diaboli.’

⁸⁹ Pomponazzi’s work was also summarised and valued, for instance, in Casaubon’s Of Credulity (1670). He calls Pomponazzi a great philosopher and naturalist. See Busson (1930), p. 103.

⁹⁰ Webster (1678), pp. 266, 320, 321. Webster refers also to the authority of Van Helmont and Bacon. Fienus, professor of medicine at Louvain wrote De Viribus Imaginationis (1608), the standard work on the imagination. It summarizes the whole discussion and defends the orthodox scholastic interpretation.

⁹¹ See Busson (1930), for a comparison between Pomponazzi, Agrippa and Paracelsus.

⁹² In his account of fascination, rays (akin to the eyes) are sent from the eyes and carry with them ‘spiritual vapours’. Love (‘at first sight’) works in a similar way, and crates a semi-magical bonding.

⁹³ See Agrippa (1998), Book 1, LXV. See also Book 3, XLIII and Book 1, L, LX & Book 3, XXXVIII; for Paracelsus, see Pagel (1958), p. 121.

imagination. In the early modern period, the power of the imagination became taboo; it was associated with both the staunchest atheism and the most dangerous illicit magic.⁹⁴

Opponents of atheism and magic, however, had difficulties with limiting the powers of the imagination. To explain some of the curious ‘facts’, transmitted in natural histories and popular belief, philosophers often had to invoke the imagination.⁹⁵ Particularly the effect of the mother’s imagination on the foetus and the ‘evil eye’ (fascination), both supported by Aristotle’s authority, informed time and again the discussions on the imagination. Fascination, the harm done to a child by an old woman, was commonly explained by malevolent rays emitted from the eyes of the ‘witch’, which were caused by her strong imagination and passions of hate and revenge.⁹⁶ Similar stories, of the Basilisk and other ‘wonders of nature’, had also to be explained. Peter of Auvergne, for instance, who continued Thomas’ unfinished commentaries on *De Caelo* in (ca.) 1290, explained how fire could be elicited from the eyes. He argued that the eye contains the thinnest veins and attracts the most subtle nutrition, which makes it well disposed for the emission of a ‘subtle and flammable matter’, which happens by strong passions.⁹⁷ He compares this with the *topoi*: fascination and menstruating women who cloud mirrors with their gaze, which indicates that also scholastic philosophers used theories of subtle vapours to explain occult phenomena.

These, and comparable ‘stories’, fuelled the debate on the imagination over the centuries. In the seventeenth century, its power on the foetus was generally accepted (Fienus aptly called the foetus an ‘alien internal body’⁹⁸), and further powers were constantly negotiated. Bacon, for instance, is ambiguous about whether or not the imagination could work on external bodies.⁹⁹ Henry More conceived of such powers within his Neo-Platonist framework, and Boyle and Newton considered the possibility in their private notes.¹⁰⁰ This long tradition of exhaled vapours seems to point to a transmission and transformation of notions of the occult

⁹⁴ Theories of a strong imagination were severely attacked in the late sixteenth century by Gianfrancesco Pico, Erastus, Del Rio, but most importantly by Fienus.

⁹⁵ For a long-term history of two such ‘facts’, see Copenhaver (1991).

⁹⁶ Originally, this was connected with Plato’s theory of vision, which worked by means of emission of rays.

⁹⁷ Peter (ca. 1290b), L. III, q. 6: ‘Inter partes autem animalis membrum subtilissimum est oculos, attractivum nutrimenti subtilioris, quoniam venis subtilissimis textitur, et quia attractivum nutrimenti subtilissimi bene est membrum evaporabile vel exhalabile.’ Thanks to Griet Galle for her willingness to share her transcriptions of Peter’s texts with me. See also Peter (ca 1290a), L. III, 3, VIII.

⁹⁸ Fienus (1608), p. 177, or also ‘near alien body’ p. 187.

⁹⁹ See the citations in Webster (1678), p. 322; and Keith (1707), pp. 77-80; see also Wallace (1967), pp. 69-95.

¹⁰⁰ Schaffer (1983), p. 128.

more complex than suggested by the standard historiography on the subject. Hutchison argued that the occult qualities of scholasticism were incorporated into the mechanical philosophy.¹⁰¹ Yet even a strict Aristotelian like Pomponazzi argued that there were three explanatory principles: manifest qualities, occult qualities, and vapours.¹⁰² This concise overview suggests that theories of vapours were already important in scholasticism as alternatives to occult qualities.¹⁰³ These theories became increasingly popular, partly because of the revival of Stoicism and Epicureanism, informed seventeenth-century natural philosophy, and became progressively more exclusive towards the end of that century. A full ‘history of vapours’, however, has still to be written.

Now we can return to Keith’s account of the contagiousness of prophecy. Recall his words: ‘being joined with some strong Passion of love, desire, &c. it [the imagination] obtains a great dominion over the Animal Spirits in that Man at will to command them, whither to go, and to carry the impression with them, or signature of what it imprints on them, and also the imagination thus fortified and exalted gives great vigor and force, or vivacity to the Animal Spirits, to penetrate at their efflux from their proper Bodies, into the Bodies of other Men’ (Keith, 1707, p. 41). Keith frames this explicitly in the tradition described above. He writes, for instance, ‘that the Eye doth commonly convey and transmit both the good and the evil that is in the Heart’ and distinguishes a ‘good and evil eye’ (pp. 48-49). False prophets bewitch their followers with their breath and with rays coming from their eyes, and convey the ‘Spirit of Quakerism’. Quakers could also recognise each other (‘people of the same spirit’) by insensible exhalations. At a certain point, Keith frames this in terms of the corpuscular philosophy, and contrasts it to the ‘unintelligible’ explanations by sympathy and antipathy (p. 60);¹⁰⁴ yet he only evokes the authority of earlier philosophers like Bacon, Ficino and Gianfrancesco Pico (pp. 72-75).¹⁰⁵ Keith was strongly influenced by More’s exposition of

¹⁰¹ Hutchison (1982); also Henry (1986).

¹⁰² ‘Donc supposons d’abord que les herbes, les pierres, les minéraux, les extraits des divers animaux et en général tout ce qui a de l’intérêt pour la médecine et même pour presque toutes les opérations humaines, altèrent les corps, soit directement en altérant par leurs vertus visibles les corps sur lesquels ils agissent, soit indirectement en se transformant en vapeurs qui altèrent les corps, soit parfois d’une façon occulte et invisible.’ Pomponazzi (1930), p. 120.

¹⁰³ For a longer history of corpuscularianism, see Lüthy et al (2001).

¹⁰⁴ ‘That called the Corpuscular Philosophy, seems best to resolve the phenomena of many natural effects, by the efflux or effluvioms of subtle little particles of Bodies of different figures and shapes, with various differing motions.’

¹⁰⁵ He also defends Ficino against the criticisms of Fienus.

Neo-Platonism¹⁰⁶ and he expands on Ficino (analogous to Pomponazzi) by arguing that the imagination has power over external objects.¹⁰⁷

These theories of the imagination seem curious to us, but they were entirely plausible at the turn of the seventeenth century. Theories of imagination and animal spirits were vague and allowed for several variations, but most physicians and philosophers agreed that mental images and passions could alter the body; an erection or blush were typical examples of this. Once the rift between soul and body was bridged, it was possible that the imagination could act on other bodies too. Bodies influenced each other continuously and in various invisible ways, as the spreading of diseases proved. Allergies prompted a direct reaction and made it possible to detect the presence of a cat without having seen it. Bees and other social animals communicated by means of vapours exhaled by their imagination.¹⁰⁸ In one way or another (by certain sympathies or corpuscles), the animal spirits had the facility to transport the information of the imagination to the body, and it seemed plausible that it could do so to other bodies too.

conclusion

The human imagination was evoked to explain many marvellous phenomena. Miraculous cures, enchantments, charms or dramatically performed rituals did not work by means of a 'natural virtue' but their results were explained by reference to the credulity of the patient, who was cured by his own imagination. Monstrous births were commonly thought to be the effect of the imagination of the mother on the foetus. Some cures, contagions or strange apparitions were argued to be the result of a strong imagination that had power over the body and the outer world. The psychosomatic was the vague but wonderful realm of the imagination, where it could perform the most stunning effects.

Here, I have argued the importance of the imagination to understand cases of prophecy or divination. It was a 'floating concept' which linked different contexts, such as demonology, illicit magic, medicine, theology and natural philosophy, and could acquire different meanings

¹⁰⁶ See Fouke (1997), p. 12

¹⁰⁷ Contrary to Pomponazzi (who he does not mention) he does only consider effects on humans. He seems strongly influenced by Ficino's music and love theories, and he associates the effects of the imagination with music, fascination, 'Magnetism or Magical sympathy' and the semi-magical bonding of Love. Love works with corporeal effluvium analogously to fascination. See respectively Keith (1707), pp. 44, 67, 72; 48-50; 67; 68.

¹⁰⁸ Ibid., p. 62.

accordingly. I have argued that the tradition of the powers of the imagination was particularly important because it could serve as a strong theory of natural magic and could be used to naturalise the most wondrous phenomena. These theories became associated with atheism and illicit magic, which made their application difficult in oppressive and orthodox contexts. I have also suggested an amendment to Hutchison's argument, which points to the importance of the concept of 'vapours' in the interaction between occult and mechanistic theories. It is in Part II of this article that I will elaborate on the social and particularly on the moral issues involved in divination and the theory of the powers of the imagination.

In the present case-study, I have shown that contemporaries debated wondrous events in terms of four categories: the natural, the demonic, the divine and fraud. Negotiations between these positions involved specific theories on the soul, the imagination, the spiritual and the moral. In the current secondary literature, great importance is attached to the category of the preternatural, which is often misleadingly characterised as the mean between the natural and the supernatural.¹⁰⁹ This category is in fact a combination of two different kinds of classification; the first divides phenomena into common and uncommon, the second distinguishes causes as natural or supernatural. An uncommon natural phenomenon was sometimes called 'preternatural', and it occurred when the normal course of nature was hindered by a natural obstacle.¹¹⁰ This clearly did not represent something 'in between' the natural and supernatural; the division between these two categories stayed unmediated. The devil, the secondary literature often states, is a typical example of the preternatural, since he is encompassed within the realm of nature (he cannot change the laws of nature). This, however, was not what was really at stake for contemporaries; it was the distinction between natural and demonic causation which was crucial for them.¹¹¹ This is why it was important to understand the interaction between the 'natural' and the 'spiritual'.¹¹²

¹⁰⁹ See Daston and Park (2001), p. 121; Clark (1997), p. 177; Burns (2002), p. 60.

¹¹⁰ One has to be careful in distinguishing the meanings of natural: i.e. 'the common' (as opposed to the uncommon); 'conforming the laws of nature' (as opposed to the supernatural or miraculous); and 'the corporeal' (as opposed to the spiritual).

¹¹¹ I do not question the use of this category for studying changes in the category of the wondrous, or indeed, the 'uncommon', but I question its use in debates about the natural and the supernatural. The category 'preternatural' moreover seemed not in common use by contemporaries, and was often conflated with the supernatural, particularly in references to demons. Hutchison (2000) seems to be more aware of this problem.

¹¹² The 'spiritual' normally includes man, demons/angels and God. This points to a certain gradation which seems to mitigate the strict dualism between the natural and the supernatural. In Christianised Neo-Platonism and other world-systems more gradations are possible (e.g. spiritual matter). Hutchison (2000, p. 343) argues that

It was in general not difficult to identify curious phenomena,¹¹³ but the debate evolved around their causes, and the same possibilities were always restated. A real and wondrous effect could be caused by God, nature or daemons (good or evil). Another possibility, especially when no witnesses were available, was that the perceived effect was only imaginary, and this again could be caused by God or His messengers (mystical visions, real prophecy, when the imagination is pure and perfected), nature (the disturbed imagination of an ill person) or demons (which delude the imagination). The last possibility was the involvement of human art (mostly seen as fraud), which did not really delude the spectators, but deceived them with an apparent effect. These were the important categories for contemporaries, which informed the debates on curious events. The imagination was important in all these explanatory models and had power both over the real and the imaginary. It was situated in between the illusionary and the truthful, in between the material and the spiritual, in between appearance and reality.

Epilogue

By elaborating upon the powers of the imagination, Keith tried to legitimise his former lapse into Quakerism by passing his moral responsibility onto a natural contagion. Quakerism would be similar to a disease that one could ‘catch’. His theory had also the advantage over the explanations of the physicians, who ascribed enthusiasm to a mental illness, that it could avoid the blame of insanity. The strong imagination, emitting its spirits, becomes a mysterious power to which the susceptible involuntarily succumb. This ‘evil spirit’ transported passions and even ideas to others. A power that could dominate the behaviour and mind of others was socially unacceptable however. In the phrasing of Keith, who compared the power with love at first sight, it even resembled love-magic, one of the most dangerous sorts of magic. This magic was a means for constraining the will of others, and had been a frequent basis for prosecution.¹¹⁴ Since the theory of the powers of the imagination was not inherently

angelic actions were more ‘supernatural’ than everyday actions. This is a sloppy use of concepts, which was, however, also present in the seventeenth century. (See also Lewis, 2000, p. 64.) Another distinction focuses on the ‘will’ (or the moral), which only involves man, demons/angels and God, and excludes ‘spiritual matter’.

¹¹³ Something Daston and Park (2001, p. 122) somewhat surprisingly seem to argue.

¹¹⁴ The ease with which Keith uses these theories, and even the word ‘magic’ in the title of his book, attests to the tolerance prevalent in England. Keith used the word ‘magic’ to discredit the Quakers, but they turned it back at him mockingly.

implausible, the strong opposition against it must be judged by the social, political and theological context. In the seventeenth century, as I have shown, the strong powers of the imagination were associated with magical and atheistic doctrines. This was recognised by Lacy and the Quaker Whitehead, who derided Keith for his magical theories.¹¹⁵

This theory of the contagious imagination became popular with deists. As before, it was an excellent means to exclude divine and demonic intervention and to naturalise seemingly inexplicable phenomena. Enthusiasm became something like a disease, and the third earl of Shaftesbury (1671-1713), a deist moral philosopher, appropriated Keith's words when he wrote that with an inflamed imagination, 'the very breath and exhalations of men are infectious, and the inspiring disease imparts itself by insensible transpiration.'¹¹⁶ His use of this terminology in a moral treatise, however, makes the status of his adaptation of 'insensible transpirations' ambiguous. The physiological basis of enthusiasm is certainly important, but self-control and reflection can keep in check 'our passions in their very seeds' and ridicule and good humour should bring others back to their senses.¹¹⁷ Even if there was something 'in the air', something physical that spread 'psychical' or 'moral' qualities such as passions, enthusiasm or even ideas, it should still be possible to counter it on a moral level, by exerting the control of our passions and ideas by our reason. Its social effects could be cured by a social remedy: ridicule.¹¹⁸

For many, Shaftesbury seemed to have given away too much to the physiological (and pseudo-magical) level and he became the subject of mockery himself. Since glances and breath were infectious, the bishop of Gloucester joked, one had to shield nose and eyes when encountering an enthusiast.¹¹⁹ Shaftesbury did not explore the consequences of his physical or physiological description, but Keith identifies the crucial problem: 'and tho'it be difficult and very hardly accountable, how effluvioms meerly corporeal and material, can convey or transmit the impression or signature of the habit, frame and disposition of the Mind of that Body from which the effluvioms come.' How is it possible that moral qualities can be

¹¹⁵ Whitehead (1708), p. 163 and Lacy (1713), p. 411. See Schwartz (1978), p. 52.

¹¹⁶ Shaftesbury (1999), p. 23. Shaftesbury could not dismiss it as an evil, since it is the same spirit which works in a more moderate way in the poetical enthusiasm he tried to reassess.

¹¹⁷ *Ibid.*, pp. 22, 28.

¹¹⁸ The contagion of enthusiasm can be compared with phenomena that we call today mass-hysteria, love at first sight or the awareness of a certain 'atmosphere'.

¹¹⁹ See Schwartz (1978), p. 53.

transmitted by material means? Which theory can account for that? Yet Keith concludes casually: ‘yet frequent experience proves that so it is.’¹²⁰

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Bibliography.

- Agrippa, H. C. (1998). Three Books of Occult Philosophy. D. Tyson (Ed.). J. Freake (Trans.). St. Paul: Llewellyn Publications. First published 1531.
- Barker, P. (1991). Stoic Contributions to Early Modern Science. In M. J. Osler (Ed.), Atoms, Pneuma, and Tranquility. Epicurean and Stoic Themes in European Thought. Cambridge: Cambridge University Press.
- Bohn, J. (1710). Circulus anatomico-physiologicus. Lipsiae.
- Brockliss, L. (1989). The medico-religious universe of an early eighteenth-century Parisian doctor: the case of Philippe Hecquet. In R. French, & A. Wear (Eds.), The Medical Revolution of the Seventeenth Century. Cambridge: Cambridge University Press.
- Brockliss, L., & Jones, C. (1997). The Medical World of Early Modern France. Oxford: Clarendon Press.
- Bundy, M. W. (1927). The Theory of Imagination in Classical and Mediaeval Thought. Urbana: The University of Illinois Press.
- Burke, P. (1987). Popular culture in early modern Europe. London: Temple Smith.

¹²⁰ Keith (1707), p. 66.

- Burns, W. E. (2002). An Age of Wonders. Prodigies, politics and providence in England 1657-1727. Manchester: Manchester University Press.
- Burton, R. (1989-2000). The Anatomy of Melancholy. Oxford: Clarendon. First published 1621.
- Busson, H. (1930). Introduction. In P. Pomponazzi, Les Causes des Merveilles de la Nature ou les Enchantements (pp. 7-105). H. Busson (Trans.). Paris: Les Editions Rieder.
- Camporesi, P. (1988). The incorruptible flesh: bodily mutilation and mortification in religion and folklore. T. Croft-Murray and H. Elsom (Trans.). Cambridge: Cambridge University Press.
- Chastelain, J. (1691). Traité des convulsions et des mouvemens convulsifs. Lyon.
- Clark, S. (1986). The scientific status of demonology. In B. Vickers (Ed.), Occult and scientific mentalities in the Renaissance (pp. 351-374). Cambridge: Cambridge University Press.
- Clark, S. (1991). The rational witchfinder: conscience, demonological naturalism and popular superstitions. In S. Pumfrey, P. Rossi, & M. Slawinski (Eds.), Science, culture and popular belief in Renaissance Europe (pp. 222-248). Manchester: Manchester University Press.
- Clark, S. (1997). Thinking with Demons. The Idea of Witchcraft in Early Modern Europe. Oxford: Oxford University Press.
- Cocking, J. M. (1991). Imagination. A study in the history of ideas. London: Routledge.
- Copenhaver, B. P. (1984). Scholastic Philosophy and Renaissance Magic in the De Vita of Marsilio Ficino. Renaissance Quarterly, 37 (4), 523-554.
- Copenhaver, B. P. (1988). Hermes Trismegistus, Proclus, and the Question of a Philosophy of Magic in the Renaissance. In I. Merkel, & A. G. Debus (Eds.), Hermeticism and the Renaissance. Intellectual History and the Occult in the Early Modern Europe (pp. 79-110). London: Associated University Presses.
- Copenhaver, B. P. (1990). Natural magic, hermetism, and occultism in early modern science. In D. C. Lindberg, & R. Westman (Eds.), Reappraisals of the Scientific Revolution (pp. 261-301). Cambridge: Cambridge University Press.
- Copenhaver, B. P. (1991). A Tale of Two Fishes: Magical Objects in Natural History from Antiquity Through the Scientific Revolution. Journal of the History of Ideas, 52 (3), 373-398.
- Copenhaver, B. P. (1998). The Occultist Tradition and its Critics. In D. Garber, & M. Ayers (Eds.), The Cambridge History of Seventeenth Century Philosophy (pp. 454-512). Cambridge: Cambridge University Press.

- Couliano, I. (1984). Eros et magie à la Renaissance, 1484. Paris: Flammarion.
- Crété, L. (1992). Les Camisards. Paris: Perrin.
- Daston, L., & Park, K. (2001). Wonders and the Order of Nature. 1150-1750. New York: Zone Books.
- De Brueys, M (1692). Histoire du fanatisme de notre tems. Paris; and other editions Montpellier, 1709; Utrecht, 1737.
- de La Gorce, A. (1950). Camisards et Dragons du Roi. Paris: Albin Michel.
- Dear, P. (1998). A Mechanical Microcosm. Bodily Passions, Good Manners, and Cartesian Mechanism. In C. Lawrence, & S. Shapin (Eds.), Science Incarnate: Historical Embodiments of Natural Knowledge (pp. 51-82). Chicago: University of Chicago Press.
- del Rio, M. A. (1599-1600). Disquisitionum magicarum libri sex. Lovain.
- Descartes, R. (1897-1913). Oeuvres de Descartes (12 vols.). C. Adam, & P. Tannery (Eds.) Paris: Cerf.
- Descartes, R. (1677). L'homme de René Descartes. Paris.
- Digby, K. (1658). A Late Discourse Made in a Solemne Assembly of Nobles and Learned Men at Montpellier in France; Touching the Cure of Wounds by the Powder of Sympathy. R. White (Trans.). London.
- Du Bois, M. (1628). La vie de soeur Cathérine de Jésus. Paris.
- Fattori, M. and M. Bianchi (1988). Phantasia-Imaginatio. V° Colloquio Internazionale Roma 9-11 gennaio 1986 (Lessico Intellettuale Europeo). Rome: Edizioni dell'Ateneo.
- Ficino, M. (1989). Three Books on Life. C. V. Kaske, & J. R. Clark (Eds., Trans.). New York: Renaissance Society of America.
- Ficino, M. (2001). Platonic Theology Vol. I. Books I-IV. J. Hankins, & W. Bowen (Eds.). M. J. B. Allen, & J. Warden (Trans.). Cambridge, Mass.: Harvard University Press.
- Fienus, T. [Feyens] (1608). De Viribus Imaginationis Tractatus. London.
- Fouke, D. (1997). The Enthusiastical Concerns of Dr. Henry Moore. Religious Meaning and the Psychology of Delusion. Leiden: Brill.
- Frasca-Spada, M. (2003). Belief and Animal Spirits in Hume's Treatise. Eighteenth-Century Thought (to be published).

- French, R., & Wear, A. (Eds.). (1989). The Medical Revolution of the Seventeenth Century. Cambridge: Cambridge University Press.
- Garrett, C. (1987). Spirit Possession and Popular religion; from the Camisards to the Shakers. Baltimore: Johns Hopkins University Press.
- Harvey, E. R. (1975). The Inwards Wits. Psychological Theory in the Middle Ages and the Renaissance. London: The Warburg Institute.
- Henry, J. (1986). Occult qualities and the experimental philosophy: active principles in pre-newtonian matter theory. History of Science, 24, 335-381.
- Henry, J. (1987). Medicine and pneumatology: Henry More, Richard Baxter, and Francis Glisson's Treatise on the Energetic Nature of Substance. Medical History, 31, 15-40.
- Henry, J. (1990). Magic and science in the sixteenth and seventeenth centuries. In R. C. Olby et al (Eds.), Companion to the History of Modern Science (pp. 583-596). London: Routledge.
- Heyd, M. (1995). "Be Sober and Reasonable". The Critique of Enthusiasm in the Seventeenth and Early Eighteenth century. Leiden: Brill.
- Hunter, M. (2001). The Occult Laboratory. Magic, Science and Second Sight in Late Seventeenth-Century Scotland. Woodbridge: The Boydell Press.
- Hutchison, K. (1982). What Happened to Occult Qualities in the Scientific Revolution? Isis, 73, 233-253.
- Hutchison, K. (1983). Supernaturalism and the mechanical philosophy. History of Science, 21, 297-333.
- Hutchison, K. (2000). The Natural, the Supernatural, and the Occult in the Scholastic Universe. In G. Freeland, & A. Coronas (Eds.), 1543 and All That (pp. 333-355). Dordrecht: Kluwer.
- James, S. (1997). Passion and Action. The Emotions in Seventeenth-Century Philosophy. Oxford: Clarendon Press.
- Jostonus, J. (1657). An History of the Wonderful things of Nature. London.
- Joutard, P. (1976). Les Camisards. Paris: Gallimard.
- Joutard, P. (1977). La Légende des Camisards. Une Sensibilité au Passé. Paris: Gallimard.
- Jurieu, P. (1687). The accomplishment of the Scripture prophecies, or, The approaching deliverance of the church. London.

- Jurieu, P. (1988). Lettres pastorales adressées aux fidèles de France, qui gémissent sous la captivité de Babylon. Hildesheim. First published 1689.
- Kearny, R. (1988). The Wake of Imagination. Ideas of creativity in Western culture. London: Hutchinson.
- Keith, G. (1707). The Magick of Quakerism or, the Chief Mysteries of Quakerism Laid Open. London.
- Klibansky, R., Panovsky, E., & Saxl, F. (1964). Saturn and Melancholy. Studies in the History of Natural Philosophy, Religion and Art. London: Nelson.
- Knox, R. (1987). Enthusiasm. London: Collins.
- Kreiser, B. R. (1978). Miracles, Convulsions, and Ecclesiastical Politics in Early Eighteenth-Century Paris. Princeton: Princeton University Press.
- Kristeller, P. O. (1943). The Philosophy of Marsilio Ficino. New York: Columbia University Press.
- Lacy, J. (1707). A cry from the desert: or, Testimonials of the miraculous things lately come to pass in the Cevennes. London.
- Lacy, J. (1713). The General Delusion of Christians. London.
- Le Brun, P. (1702). Histoire critique des pratiques superstitieuses (2nd ed). Rouen and Paris.
- Lemmens, L. [Lemnius] (1611). De miraculis occultis naturae libri IV. Frankfurt.
- Lewis, C.S. (2000). Studies in Words. Cambridge: Cambridge University Press.
- Lüthy, C., Murdoch, J. E., & Newman, W. R. (2001). Introduction: Corpuscles, Atoms, Particles and Minima. In C. Lüthy, J. E. Murdoch, & W.R. Newman (Eds.), Late Medieval and Early Modern Corpuscular Matter Theories (Medieval and Early Modern Science, Vol. 1) (pp.1-38). Leiden: Brill.
- MacDonald, M. (1983). Mystical Bedlam. Madness, Anxiety, and Healing in Seventeenth Century England. Cambridge: Cambridge University Press.
- Malebranche, N. (1997). The search after truth. Cambridge: Cambridge University Press.
- Misson, M. (Ed.). (1707). Théâtre sacré des Cévennes. London.
- More, H. (1659). The immortality of the soul. London.

- Nicolli, O. (1990). Prophecy and People in Renaissance Italy. L. G. Cochrane (Trans.). Princeton: Princeton University Press.
- Osler, M. J. (Ed.). (1991). Atoms, Pneuma, and Tranquility. Epicurean and Stoic Themes in European Thought. Cambridge: Cambridge University Press.
- Pagel, W. (1958). Paracelsus. An Introduction to Philosophical Medicine in the Era of the Renaissance. Basel: S. Karger.
- Park, K. (1974). The Imagination in Renaissance Psychology. MPhil. Dissertation, Univ. London.
- Park, K. (1988a). The Concept of Psychology. In C. B. Schmitt, Q. Skinner, & E. Kessler (Eds.), The Cambridge History of Renaissance Philosophy (pp. 455-463). Cambridge: Cambridge University Press.
- Park, K. (1988b). The Organic Soul. In C. B. Schmitt, Q. Skinner, & E. Kessler (Eds.), The Cambridge History of Renaissance Philosophy (pp. 464-484). Cambridge: Cambridge University Press.
- Park, K. (1998). Impressed Images: Reproducing Wonders. In C. A. Jones, & P. Galison (Eds.), Picturing Science Producing Art (pp. 254-271). New York: Routledge.
- Peter de Alvernia (ca. 1290). Commentary on De Caelo III & IV. MS Paris, Bibliothèque Mazarine 3484, fols. 245^{rb}-268^{rb}.
- Peter de Alvernia (ca. 1290). Quaestiones supra librum De Caelo et Mundi. MS Wien, Dominikanerkonvent 150/120, fols 47^{ra}-68^{vb}, and MS Paris, Bibliothèque Mazarine 3493, fols. 95^{ra}-136^{rb}.
- Pico Della Mirandola, Gianfrancesco (1971). On the Imagination. H. Caplan (Ed., Trans.). Westport, Conn.: Greenwood Press.
- Pine, M. L. (1986). Pietro Pomponazzi: Radical Philosopher of the Renaissance. Padova: Editrice Antenore.
- Pomponazzi, P. (1930). Les Causes des Merveilles de la Nature ou les Enchantements. H. Busson (Trans.). Paris: Les Editions Rieder.
- Pomponazzi, P. (1970). De naturalium effectuum causis sive de incantationibus. Hildesheim: Georg Olms Publishers. First Published 1567, circulated in manuscript before this date.

- Porta, J. B. (1658). Natural Magick. London. See also:
<http://members.tscnet.com/pages/omard1/jportac1.html>
- Porter, R. (Ed.). (1995). Medicine in the Enlightenment. Amsterdam: Rodopi.
- Proclus, D. (1963). The Elements of Theology. E. R. Dodds (Ed.). Oxford: Clarendon Press.
- Purcell, J. (1702). A treatise of vapours, or hysterick fits. London.
- Putscher, M. (1974). Pneuma, Spiritus, Geist. Vorstellungen vom Lebensantrieb in ihren geschichtlichen Wandlungen. Wiesbaden: Franz Steiner Verlag.
- Reisch, G. (1503). Margarita Philosophica. Freiburg-im-Breisgau. First published 1495.
- Rublack, U. (2002). Fluxes: the Early Modern Body and the Emotions. History Workshop Journal, 53, 1-16.
- Schaffer, S. (1983). Occultism and Reason. In A. J. Holland (Ed.), Philosophy, its History and Historiography (pp. 117-143). Dordrecht: Kluwer.
- Schaffer, S. (1987). Godly Men and Mechanical Philosophers: Souls and Spirits in Restoration Natural Philosophy. Science in Context, 1 (1), 55-85.
- Schaffer, S. (1996). Piety, Physic and Prodigious Abstinence. In O. P. Grell, & A. Cunningham (Eds.), Religio Medici: Medicine and Religion in Seventeenth-Century England (pp. 171-203). Aldershot: Scolar.
- Schwartz, H. (1978). Knives, Fools, Madman, and that Subtile Effluvium. A study of the Opposition to the French Prophets in England, 1706-1710. Gainesville: The University Presses of Florida.
- Schwartz, H. (1980). The French Prophets: The History of a Millenarian Group in Eighteenth-Century England. Berkeley: University of California Press.
- Scot, R. (1665). The discoverie of witchcraft. London. First published 1584.
- Shaftesbury, A. A. Cooper earl of (1999). A Letter Concerning Enthusiasm to my Lord. In A. A. Shaftesbury, Characteristics of Men, Manners, Opinions, Times. L. E. Klein (Ed.). Cambridge: Cambridge University Press.
- Smoller, L. A. (1994). History, Prophecy, and the Stars. The Christian Astrology of Pierre d'Ailly, 1350-1420. Princeton: Princeton University Press.

- Star, S. L., & Griesemer, J. R. (1989). Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkely's Museum of Vertebrate Zoology, 1907-39. Social Studies of Science, 19 (3), 387-420.
- Steneck, N. H. (1974). Albert the Great on the Classification and Localization of the Internal Senses. Isis, 65 (2), 193-211.
- Sudhoff, W. (1913). Die Lehre von den Hirnventrikeln in textlicher und graphischer tradition des Altertums und Mittelalters. Archiv für Geschichte der Medizin VII, 3, 149-205.
- Swift, J. (1958). A Discourse Concerning the Mechanical Operation of the Spirit. In J. Swift, A Tale of a Tub. A. C. Guthkelck, & D. N. Smith (Eds.). Oxford: Clarendon Press. First published 1704.
- Thomas, K. (1973). Religion and the Decline of Magic. Studies in Popular Beliefs in Sixteenth- and Seventeenth-century England. Harmondsworth: Penguin Books.
- Thorndike, L. (1958). A History of Magic and Experimental Science (8 vols.). New York: Macmillan & Columbia University Press.
- Thorndike, L. (1964). Imagination and Magic: The Force of Imagination on the Human Body and of Magic on the Human Mind. In Mélanges Eugène Tisserant 7 (pp. 353-358). Vatican City: Bibliotheca Vaticana.
- Van Sant, A. J. (1993). Eighteenth-Century Sensibility and the Novel. The Senses in Social Context. Cambridge: Cambridge University Press.
- Verbeke, G. (1945). L'évolution de la doctrine du pneuma, du stoïcisme à Saint Augustin. Louvain: Desclée de Brouwer.
- Vermeir, K. (2005, forthcoming). The 'Physical Prophet' and the Powers of the Imagination Part II. A case-study on dowsing and the naturalisation of the moral (1685-1710). Studies in History and Philosophy of Science, 36C.
- Walker, D. P. (1969). Spiritual and Demonic Magic: From Ficino to Campanella. Ndeln, Liechtenstein: Kraus Reprint. First Published 1958.
- Walker, D. P. (1985). Music, Spirit and Language in the Renaissance. P. Gouk (Ed.) London: Variorum Reprints.

- Wallace, K. C. (1967). Francis Bacon on the Nature of Man. The Faculties of Man's Soul: Understanding, reason, Imagination, Memory, Will, and Appetite. Urbana: University of Illinois Press.
- Walsham, A. (1999). Providence in early Modern England. Oxford: Oxford University Press.
- Webster, J. (1678). Displaying of Supposed Witchcraft. London.
- Whitehead, G. (1708). Power of Christ Vindicated. London.
- Willis, T. (1683). Two discourses concerning the soul of brutes, which is that of the vital and sensitive of man. London. First published 1672.
- Wright, T. (1971). The Passions of the Mind in General. Urbana: University of Illinois Press. First published 1604.

Captions

Fig.-1: Fragment of the Pamphlet: 'Divise a la Gloire du Roi sur la Revocation de l'Edit de Nantes.' This curious sundial, of which 'all the sides mark the same hours under the sun', represents the unity of the kingdom (under the Sun King) after the expulsion of the Huguenots. In De La Gorce (1950), planche III, p. 30. Reproduced by permission of Ed. Albin Michel.

Fig.-2: Frontispiece of De Brueys' Histoire du fanatisme (1709) (note that there are slight differences in the frontispieces of the other editions). Du Serre teaches the Camisards how to fake convulsions. This was one rumour used by De Brueys to discredit the prophets and to underpin his accusation of fraud. In the background one can see the army of the Camisards passing. De Brueys' argument, that false prophecy was used to support political and military upheaval, can be clearly seen in the picture. Reproduced by permission of the Syndics of Cambridge University Library

Fig.-3: In Reisch (1503, p. Hi), a Renaissance philosophical compendium. Until the Renaissance, the imagination was classified as one of the internal senses and was located at the back of the first ventricle. Renaissance anatomists questioned the tradition of the ventricles. As a consequence, strict divisions between internal senses broke down and the imagination took over their role. The tradition of the ventricles stayed prevalent in philosophy for a longer time and Vesalius derides a reproduction of this plate as a 'Philosophical Pearl' (playing with the title of Reisch's work), see Park (1974), p. 43. Reproduced by permission of the Syndics of Cambridge University Library.

Fig.-4,a-b: Descartes' drawings of the brains of a waking (a) and sleeping (b) person. The pineal gland is in the middle, controlling the whole physiological process. Descartes had placed the workings of imagination in the pineal gland, which he thought to be the link between the body-machine and the rational soul, but later Cartesians assigned it different places. See Descartes (1677). L'homme, p. 63. Reproduced by permission of the Syndics of Cambridge University Library.

Fig.-5: Pamphlet showing false prophecy caused by illness (the physician), religious enthusiasm (the sitting Calvin), the devil (the monster), heath and a bad atmosphere (the rays of the sun) and studiousness in heretical literature (the books being removed). In De La Gorce (1950), planche II, p. 15. Reproduced by permission of Ed. Albin Michel.