

**Public Displays of Knowledge: The Scientific Spectacle of
Quackery in England 1660-1740**

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Introduction

A *Quack-Doctor* is one of the Epidemical Diseases of this Age, a Younger Brother of the *Pox*, and the *Scurvy*, but more destructive than either; and like them too, is begot an Illitimate Copulation, betwixt ignorance and impudence, an Heterogenious jumble of the Dregs of *Galen* and *Caput mortuum* of *Paracelsus*; you may call him an *Enthusiast* in Physick, or a *Gifted Brother* in the Knack of *Healing*; a *Doctor* but no *Masters* of *Arts*, save those of *Cousenage* and *Lying*, a *Pettifogger* in Medicine, that *Goes to Law* with Diseases, and *Plays Booty* with Death; whoever *Trust* their Lives in his Hands, has need of a large dose of *Hellebore*, and did not *Madness* Excuse, must forfeit their *Goods* and *Chattels*, as *Felo's de fe*, Accessary to their own Destruction.¹

Quackery was presented in contemporary writings as one of the greatest evils of seventeenth century England. There were countless virulent and violent attacks which unmasked alleged physicians and healers as quacks, and then proved their deadly character both for the body of the individuals who bought their nostrums, and for the body of society which was poisoned by ignorance and deceit. Even though most authors generally agreed on defining a quack as “a person who dishonestly claims to have medical or surgical skill, or who advertises false or fake remedies”², there were great disagreements on who actually was one. No one declared himself a quack, but almost anyone could be accused of being one. Not only uneducated

¹ *The Character of a Quack-Doctor* 1676, p. 1

² *OED*; in some of the contemporary dictionaries, a quack is defined as a “1. boastful pretender to arts which he does not understand; 2. a vain boastful pretender to physic, one who proclaims his own Medical abilities in public places; 3. an artful, tricking practitioner in Physic” (Johnson 1770, v. 2, p. 219)

or vulgar practitioners could be targeted, but even licentiates of the College of Physicians or fellows of the Royal Society.³

Because of the ill-defined and ill-reputed character of quackery, many historians have approached this topic in a biased manner which reflected more their understanding of proper scientific practices, rather than the historical context.⁴ In the 1980's, the subject of quackery has received increasing attention especially in the context of the history of alternative medicine and medical fringes. Roy Porter has been one of the pioneers and most influential historians of this topic. Porter avoided the contemporary dismissals of quackery, and had the great merit of approaching both quack and regular medicine from a similar perspective. By focusing on their economic and social implications, Porter was able to draw a unitary and well contextualized picture of the two apparently opposed practices.⁵

Under the direct influence of Porter, some historians have integrated the study of quackery in the history of British consumerism. Lisa Cody in “No Cure, No Money” offered a general survey of the advertisement techniques employed by quack doctors in eighteenth century England and their appeal to the public.⁶ The most thorough case study of a quack pamphlet

³ One famous example of upper-class quack was William Read who “began his life as a tailor, turned himself into a successful oculist, made a fortune, treated Queen Anne (for which he was knighted in 1705)”, Porter 1989, p. 50. For a more detailed presentation of quacks who have received royal patronage see Thompson 1928, ch. XVIII. For the attacks of Hobbes against the Royal Society which by “adopting an experimental form of life changed proper physicists into ‘quacks’”, see Shapin and Schaffer 1989, p. 129. Because of the program of the early Royal Society of managing the public display of scientific experiments, there was always the threat that their enterprise would be confused or accused of quackery (for how the Royal Society managed these attacks and critics see Golinski 1989, Schaffer 1998, Iliffe 1999, Heyd 1995 and Shapin and Schaffer 1989).

⁴ For the old-tradition scholarly bibliography on quackery which reduced the topic to “the eternal dialectic of knaves and fools”, see Porter 1989, p. 14-20.

⁵ Porter 1989

⁶ Cody 1999

remains Francis Doherty's book on the Anodyne Necklace and eighteenth-century advertising methods.⁷

In this paper I will approach quackery from a different perspective. My interest is to analyze the public display of knowledge which was specific to the quack enterprise.⁸ I am less interested in the way quacks "tricked" people into buying their products (in the sense of a history of advertising), but fascinated to explore the ways scientific knowledge was displayed to the public, and especially how it was perceived and experienced by it. Historians like Simon Schaffer have argued that experimental philosophy could be analyzed in terms of a practice of public display. His program has been carried on by Larry Stewart and Jan Golinski.⁹ Approaching quackery from the perspective of public displays of knowledge has the advantage of preserving a symmetric and unbiased perspective which does not insert predefined differences between the scientific claims of accepted communities (like the Royal Society) and the "pseudo-scientific" advertisements of different quacks. One of the main aspects these enterprises had in common was their interaction with *an* audience.

Steven Shapin has pointed out that

⁷ Doherty 1992

⁸ As mentioned above, the concept of quackery is an ill-defined one, which hides in it certain biases. I am not interested in this paper in a historical analysis of the term itself (for this see, Porter 1989, ch. 1). As I discuss below, there is a set of documents from the 17th and 18th century which have a common core: they advertise certain drugs and nostrums through pamphlets which can include information about the cured patients, the effects of the drug, its principles of action or anything else (as it will become obvious, such documents contained a wide and poorly correlated range of information). I will collectively refer to such documents as "quack pamphlets", to their authors as "quacks", and to the whole enterprise as "quackery". This appellative does not imply any judgment on the actual efficiency of the drugs, or on the character of its dealers.

⁹ Golinski 1992, Stewart 1992

we have scarcely any understanding of the range of beliefs entertained by lay members of our society, how these beliefs may relate to those maintained by scientists and what purposes may be fulfilled by lay thinking about nature.¹⁰

Scholars who have approached the popularization of science in 17th and 18th century England have generally focused on the lecturers of the experimental philosophy and the ‘ideology’ they incorporated in their displays of knowledge, neglecting to consider the problem from the perspective of the audience. The main sources which have generally been used are the accounts of natural philosophers who misrepresented or regarded with contempt the scientific understanding of lay people. Lacking trustworthy accounts of scientific displays from the “common” people’s perspective, it seems almost impossible to reproduce the performance of Carlo Ginzburg in reconstructing the intellectual world of a simple miller. However, the study of quackery can offer important clues for solving this problem.

Some historians considered that, in seventeenth and eighteenth century England, the discourses and the remedies prescribed by physicians were greatly determined by the expectations and requirements of the clients; “the patient rather than the disease remained the focus of theory and practice”.¹¹ In his analysis of quackery, Porter subscribed to Jewson’s thesis that Georgian medicine had to “offer visions of health, sickness and recovery, which made sense from the sick person’s point of view – verbalizations and visualizations of the body’s workings, telling plausible stories...”.¹² These arguments which apply in general to the practice of physicians, acquire even more strength in the case of quack advertisements. Opposed to regular physicians, quack doctors did not directly attend patients, but through cleverly written pamphlets

¹⁰ Shapin 1990, p. 994.

¹¹ Jewson 1974, p. 376

¹² Porter 1989, p. 132

they would convince them to buy their nostrums. Thus, in the case of quack pamphlets, the peculiarities of the physicians craft were combined with the use of the press and the advertisement methods developed in a consumer society.¹³

Because of this commercial aim, quack pamphlets contain to a great extent those scientific ideas which most appealed to the general public. At the same time, these pamphlets not only reflected but also shaped the scientific understanding of common people.¹⁴

This approach allows me to address some fundamental issues in the writing of a history of scientific popularization. First, it subscribes to Shapin's, Schaffer's, Golinski's and Stewart's work on "the production of science as performance".¹⁵ The immediate advantage is that such a narrative does not reduce the popularization of scientific ideas to a diffusionist model which presents a one-way exchange process and denies agency to the audience of these ideas.¹⁶ The analysis of quack pamphlets will allow me not only to evaluate the influence of the public on the displayed knowledge, but also to speculate on the response of the audience.¹⁷ A careful analysis will bring in the audience as an active part of the exchange process, and it will also explore the plasticity of certain scientific ideas – the way their meanings change as they are translated and transmuted into a different context.

Instead of following the histories of certain scientific concepts and objects, as a historical epistemology would do, my focus is on the changes which occur through the process of

¹³ For the advertisement techniques see Cody 1999 and Doherty 1992

¹⁴ Such an example is offered by Laqueur, who traces the appearance of the obsession for masturbation to the *Onania* pamphlet published in 1722; see Laqueur 2003.

¹⁵ Schaffer 1983, p.1

¹⁶ For an analysis of the main difficulties in writing a history of science popularization see Cooter and Pumfrey 1994.

¹⁷ One can support such inferences by looking at the modifications made in the subsequent editions of the same pamphlet. It is safe to assume that such changes reflect the way the pamphlet was received by the public.

popularization. Such a synchronic analysis should go beyond the social and cultural sphere to reach a more profound epistemological core - the context, extent and the form in which scientific ideas remain intelligible to a different audience in a different context from the one in which they were produced.

Scholars have generally favored the production of science to the detriment of its experience and perception by a lay audience. My second goal in this paper is to unravel what has been called “the power of scientific imagery in popular intellectual life”.¹⁸ Playing an important role in the popularization of medicine, “quack pamphlets” could offer an important understanding of how novel scientific or medical ideas were internalized or affected the way diseases were experienced.

I will begin my study by sketching a general overview of the space in which knowledge was displayed by *quacks* in London in between 1660-1740, and focusing on its *theatrical* and *literary* dimensions. In both cases, I will identify the *spaces* of these displays (in the former case, the physical space of coffee-houses, lecture-halls, shops, streets and personal lodgings etc.; while in the latter one, the printed space of books, journals, almanacs, pamphlets, advertisements etc.), the *audience* which attended or read them and the employed instruments and techniques of persuasion. While the first chapter gives a formal description of the interactions between quacks and their patients, my second chapter will analyze the actual content of their advertisements and pamphlets, through the lens of displayed knowledge. This general overview will allow me to draw a clear picture on how the worlds of quacks and natural philosophers intersected in their displays of knowledge, both in the concrete space of coffee-houses and printed texts, but also in

¹⁸ Cooter and Pumfrey 1994, p. 256

their techniques of persuasion.¹⁹ The third chapter offers an analysis of the pamphlet of a chemist (from around 1690) who cleverly used the fame of the microscope to advertise his nostrum. The themes developed in the first two chapters provide the general framework in which the text is interpreted.

¹⁹ In the end, this approach aims to shift the emphasis from the knowledge which is displayed by a producer, to the knowledge which is encountered by an observer. For the connection between the physical and the social setting of inquiry see Shapin 1988.

Chapter 1: The World of the Quack

The term *quack*

Quack was the shortened version of *quacksalver*, a word which first came into use in 1579, and may have descended from the Dutch *kwakzalver* (person who cures with home remedies; 1543).²⁰ However, the phenomena described by this term must have been much older. As early as 1382 a “counterfeit physician” was punished in London by public humiliation.²¹ A similar phenomenon was paralleled in Italy by the *ciarlatani* (charlatans) who were itinerant peddlers (especially of medicines) that excelled in public spectacles.²²

Early quackery (especially in the 16th century) was greatly centered on theatrical performances which went well beyond the mere demonstrations of the skills of the doctor and his miraculous cures. Quacks combined their shows with comedy and music which was provided by troupes of singers, dancers, acrobats, puppeteers, jugglers, jesters and actors.²³ Their main aim was to attract as many people as possible, and by entertaining them to facilitate the selling of the merchandise. A widely used synonym for quacks was *mountbanks*, a word of Italian origin which still preserved its literal meaning of “mount on a bench” and referenced the raised platform or stage used by itinerant salesman.²⁴

²⁰ *OED Online*

²¹ Thompson 1928, p. 25.

²² Gentilcore 2006, p. 93.

²³ Katritzky 2007, p. 88; for Italy see Gentilcore 2006.

²⁴ *OED Online*.

In this paper I will not focus on the mountbanks or quacks which sold their medicines from a coach when travelling accompanied by a monkey and a harlequin who played the fool or the violin with the same virtuosity (see Figure 1). I am only interested in those merchants who in their attempts to increase their credibility and persuasion displayed “knowledge”. The term is purposefully vague, as the aim of the paper is to determine its content. Because my focus is on public displays of knowledge as they are represented in the advertisements of the medical trade, I will freely use the term *quack* to refer to any seller who publicly advertised his medical products. This use only partially overlaps with the 17th and 18th century definition of the term:

1. boastful pretender to arts which he does not understand; 2. a vain boastful pretender to physic, one who proclaims his own Medical abilities in public places; 3. an artful, tricking practitioner in Physic.²⁵

The definition is centered on deceit, ignorance, and illegitimate use of knowledge; however, in practice any seller who publicly advertised his products was susceptible to such accusations. Porter has also pointed out the dangers of a historical enterprise which would approach quackery using criteria such as integrity, scientific method or therapeutic efficiency.²⁶ The aims and method of this paper reinforce the symmetric and unbiased reading of the medical advertisements through the perspective of public displays of knowledge.

²⁵ Johnson 1770, v. 2, p. 219

²⁶



Figure 1 – The Infallible Mountbank ²⁷

²⁷ <http://www.bpi1700.org.uk/research/printOfTheMonth/september2008.html>

The quacks and the press

Seventeenth and 18th century quackery has been defined on the one hand by the popularization of printed materials (from newspapers, almanacs, pamphlets to books) and their accessibility (in terms of prices, language, diffusion etc.), and on the other hand by the development of a consumer society.²⁸ The first known advertisement for a medicine published in a newspaper dates from 1652.²⁹ Soon such ads became an essential part of a newspaper as it significantly reduced its cost. Because ads were extremely profitable, biweekly advertising sheets were dispersed gratis in London and the provinces; the *Generous Advertiser*, a sheet which mainly advocated books and medicines, boasted to have disseminated 4,000 free copies of each issue.³⁰ Some statistics are relevant to understand the extent and impact of medical advertisements. In the thirty ads of a February 1722 London paper, Cody has counted seventeen ads for medical products, and five for books or pamphlets, including one for gonorrhoea.³¹ Handbills started being distributed in the 16th century. This advertisement method became so popular, that a witness wrote in 1752 in the *Morning Post* that as he “walked from St. Paul’s to Temple Bar (a distance of about half a mile), he had a dozen of different handbills thrust on him”.³²

As mentioned above, quack published materials consisted either in newspaper ads which varied in length from a couple of paragraphs to one or two pages, or in handbills and flyers which were handed out to passersby or posted on the walls of coffee-houses; not least, many

²⁸ For the relationship between press and medicine see Furdell 2002; for the relationship between quackery and the consumer society see Porter 1989; Cody 1999.

²⁹ Burnby 1988, p. 35.

³⁰ Furdell 2002, p. 136.

³¹ Cody 1999, p. 105.

³² Burnby 1988, p. 32.

nostrums were accompanied by a free pamphlet which could range in length from a couple of pages to more than fifty. Most of these texts seem to have been written following the same template. Each advertisement or ad started by introducing a wonderful and miraculous nostrum (pills, powders, elixirs, cordials, necklaces etc.) which was unique and secret. Secondly, the quack exposed a long and almost exhaustive list of the symptoms and the diseases which could be cured by his drug; most of the time, he concluded that his miraculous nostrum was efficient for every *curable* disease. The quack also added a list of satisfied customers (or letters from them), and the directions for taking the drug. As there were few printing houses specialized on “learned works”, these books were usually published together with almanacs, pamphlets and ephemera; for example, Newton’s *Principia* was printed by Joseph Streater, a printer prosecuted for the production of ‘lewd’ books.³³

Some quacks distributed their nostrums throughout London (and the province) to barber-shops, shoe-makers, comb-makers, peruke-makers, distillers, tobacconists, grocers, milliners, booksellers, coffee-houses, or personal lodgings etc.³⁴ The list, far from being exhaustive, is relevant for understanding the great dispersion of the products, but it also underlines the relations and agreements existing between producers and distributors. Having a large distribution network had its risks: for example, Richard Stoughton, inventor of the Great Cordial Elixir, complained that:

I have Removed it [his Elixir] from Garraway’s at the Exchange-Gate, (who sold it for me formerly, having good Reason to believe she Mixes, or otherwise Counterfeits it, and desire those who come to Change would have it from my own House...).³⁵

³³ [Johns 1998, p. 100.](#)

³⁴ *Elixir Magnum Vitae* 1670; *Sermon* 1671; *Nendick* 1677; *Bromfield* 1680.

³⁵ Quoted in Doherty 1992, p. 50.

Peter Isaac has pointed out that towards the end of the seventeenth century proprietary medicines greatly profited from the distribution networks of booksellers, stationers or newspapers. He has counted that from 2705 of booksellers who entered the trade in between 1651 and 1700, 185 sold nostrums.³⁶ Some of them went a step further; John Newbery, a bookseller, bought half the proprietorship of Dr Robert James' Fever Powder (1747).³⁷ The distribution network of booksellers should not be underrated as it involved an impressive number of people, from the printers themselves, to "*stitchers, binders, stationers, hawkers, mercury-women, peddlers, ballad-singers, posts, caryers, hackney-coachmen, boat-men, and mariners*"³⁸. *The hawkers "cried" books on the street, and some even dropped pamphlets in front of the king himself.*³⁹ The secrecy and the uniqueness of the receipts was a general claim made by quacks for advertising purposes, but also to protect their business. Even though the Statute of Monopolies (a law enacted in 1624) protected the sole right of manufacture for novel receipts, between 1650 and 1750 only eighteenth patents were issued for branded medicines.⁴⁰ The other sellers used different ways to protect their investment. Pamphlets provided a list of the authorized persons who sold the nostrums, or the distinctive signs of the original product: special seals on a certain wax color, embossed bottles etc.⁴¹ One can hardly find a pamphlet in which "new upstart Counterfeiters ... and Ape-like Imitators" are not denounced. Even more, many quacks motivated the publishing of pamphlets as a defense of their rights against the threat of thieves.⁴² Even if for quacks receipts were the most treasured secrets, some formulas were stolen by

³⁶ Isaac 199, p. 35.

³⁷ Burnby 1998, p. 37; Furdell 2002, p. 131.

³⁸ [Johns 1998, p. 153.](#)

³⁹ [Ibid.](#)

⁴⁰ Furdell 2002, p. 137.

⁴¹ Haycock and Wallis 2005, p. 26.

⁴² Daffy 1673.

employees or even patients.⁴³ Daffy's *Elixir Salutis* made it into *The London Dispensatory* (1694).⁴⁴ However, most of the time quacks were accused of stealing their receipts from licensed physicians. After the death of the inventor, the business was carried on by wives, children or partners; usually the name of the nostrum and the pamphlets remained unchanged, with the exception of a short note which acknowledged the rightly inheritor and new producer of the receipt.⁴⁵

The quack discourse

Quacks addressed themselves to large audiences with undistinguished faces and varied purses. Their discourse resembled more a soliloquy rather than a dialogue. Also, opposed to the practice of physicians who tailored their cures for each individual patient, quacks promoted general remedies whose efficiency was invariant. Such a treatment appealed to many both because of its low costs, and its veil of anonymity. The secrecy which characterized the quack trade was extended to the clients; pamphlets which advertised cures for "shameful diseases" promised to protect the intimacy of the client, and assure a cure "without the least Confinement or Suspicion, even of their Bosom Friend".⁴⁶ Also, nostrums were sold not only in bookshops or coffee-houses, but also in reclosed spaces such as personal lodgings.

⁴³ Ibid.

⁴⁴ Pechey 1694, p. 184.

⁴⁵ Bromfield 1694; Haycock and Wallis 2005.

⁴⁶ *A practical and philosophical scheme of the secret disease* [1718?].

Cody keenly noticed the paradox that even though the quack discourse promised secrecy, at the same time it grossly advertised its efficiency using the name of the clients.⁴⁷ Of course, there were “delicate” ways in which this paradox was solved: instead of merely publishing a list of names of cured customers (and their address), many quacks chose to publish the “thank you” letters of content clients. It was a clever mean through which the vow of secrecy could be kept, and at the same time the advertising impact increased. Thus, the substitution of the list with the letters brought out the personal voice of the patients who directly described their diseased bodies, and the miraculous effect of the cure. Of course, there are more than enough reasons to doubt the authenticity of these letters.

A different technique for increasing their credibility was the placement of ads next to the news sections, thus encouraging the mixing up of the factual with the fraudulent.⁴⁸ This precarious division between advertisements and facts or news was also present in many quack pamphlets.⁴⁹

Even though professional physicians, especially Fellows of the Royal College of Physicians of London, were harshly criticizing quackery and medical advertisements more generally, some of them were involved in this trade. The *Mercurius Reformatus* (1689-91) – authored by Dr. James Welwood, a fellow of the above mentioned college – did contain many ads for fabulous cures invented by unlicensed empirics.⁵⁰ Some other examples are those of John Peachey, an Oxford University and a licentiate College of Physician who advertised his cures and service by handbills, or the more famously Dr. James Robert, a Cambridge MD and inventor

⁴⁷ Cody 1999, p. 123.

⁴⁸ Cody 1999, p. 108.

⁴⁹ See chapter 2 on the Anodyne Necklace.

⁵⁰ Furdell 2002, p. 137.

of “febrifuge powders”.⁵¹ Thomas Kirleus, a collegiate physician and doctor to Charles II, boasted about “his multipurpose drinks and pills for ulcers, scabs and scurfs in the face, the King’s Evil, leprosy, and venereal disease”.⁵² Lionel Lockyer who presented himself as an “authorized physician and chemist”, published a pamphlet in 1667 for his “excellent pills called *Pilulae Radiis Solis Extractae*”.⁵³ Between the many physicians or apothecaries who employed the language and advertising techniques of quackery, only some of them were licensed practitioners, while others claimed that title without possessing any medical education.⁵⁴

The coffee-house

Besides book-shops, coffee-houses were one of the most common places where quack nostrums could be bought and handbills distributed. A vivid description of a coffee-house at Westminster was offered in a July 1714 edition of *The Spectator*:

I lately dropt in a coffee-house at Westminster, where I found the room hung round with ornaments of this nature. There were elixirs, tinctures, the Anodyne Fetus, the English pills, electuaries, and in short, more remedies than I believe there are diseases.⁵⁵

Coffee-houses were an ideal place not only for posting ads and bills, but also for lecturing and performing in front of an audience. A 1731 notice informed that Christopher Kelly’s *Curing Drops* for breast cancer could not only be bought at John’s Coffee House in Mitre-Court, but the

⁵¹ Porter 1989, p. 5-8.

⁵² Furdell 2002, p. 138.

⁵³ Lockyer 1667.

⁵⁴ Porter 1987, p. 77.

⁵⁵ *The Spectator* [1723], vol. 8, p. 70

inventor himself could be found there “performing an account of the wonderful cures [...] constantly from one to three”.⁵⁶ Similarly, at Nixon’s coffee-house, the inventor of ‘World’s Beautifyer’ could be spoken to if desired.⁵⁷ Many quacks included in their ads their daily schedule. The most overwhelming note was written by Thomas Smith of King Street, Westminster, who described himself as the “first Master Corn-Cutter of England” and said in a bill that

I am to be spoken with till 8 in the morning and at 6 at night at Home, and every day at these Coffee-houses following, morning and evening. The ‘Rainbow’ at Fleet-bridge and at Richards, Nandos, Temple, Mannaring’s ‘The Grecian’ and Brown’s, all in Fleet-Street near the Temple. From 1 to 4, at Grigby’s in Threadneedle-street, the backside of the Royal Exchange, or at the Lisbon Cofee-house next door and at the Amsterdam Coffee-house, the London Coffee-house by Antwerp Tavern, and each evening going home, I call at all the Coffee-houses above Toms and Wills near Covent Garden, Squire’s in Fuller’s Rents, Holborne, Ormonde-street at Mr. Man’s, the Royal Coffee-house near Whitehall, Mrs. Wells under Scotland-Yard gate, Alice’s, Waghorn’s, and all the Parliament Coffee-houses all adjoining to the Parliament Hose, where I am ready to serve any Gentlemen or Lady.⁵⁸

Coffee-houses, nicknamed “penny universities” because of the one or two penny entrance fee, were an essential part of the cultural milieu of 17th and 18th century London. They were an important place for the production and exchange of printed materials, but also for the pursuit of conversations. Men like Robert Hooke or Edmond Halley commonly spent many hours in coffee-houses every day debating and demonstrating some of their recent discoveries.⁵⁹ The paths of common quacks and natural philosophers many times overlapped. ‘The Grecian’ coffee-house, one of the many stops on Thomas Smith’s long list, was also a famous meeting place for

⁵⁶ Quoted in Cody 1999, p. 106.

⁵⁷ Thompson 1928, p. 212.

⁵⁸ Quoted in Thompson 1928, p. 270.

⁵⁹ Johns 1998, p. 554.

fellows of the Royal Society, accompanied many times by their president, Sir Isaac Newton, or by Edmond Halley and Sir Hans Sloane.⁶⁰

⁶⁰ Shelley 1909, p. 202-3.

Chapter 2: The Displays of Knowledge

The quacks and the new science

There are some examples in which the Royal Society and some of its fellows were invoked in quack pamphlets. Some advertised their nostrums by attributing their invention to a famous personality. Robert Boyle was credited by a quack as the inventor of the *Effectual Pill*, while the *Pilula Salutiferens* was said to have been first prepared by the “famous Dr. Sydenham for his own use, who afterwards prescribed it with incredible success throughout the vast extent of his Laborious Practice”.⁶¹ Boyle constantly complained against the usurpation of his ideas, which either robbed him of the credit, or reduced them to ‘gibberish’. Boyle was conscious of the chymical recipes dispersed throughout Europe to which their counterfeiters attached as a “Pastport” Boyle’s own name; similarly, experiments were “abridg’d” or adapted to disguise their origin, or transcribed as “whole Sets of Experiments if not reasonings too”.⁶²

Also, an antirabies preparation was called “Dr Mead’s powder against the bite of the mad dog”, while Sir Hans Sloane, president of the Royal Society in between 1727-1741, was credited with having invented an eye salve and a medicinal chocolate known as “Sir Hans Sloane’s Milk Chocolate”. Many historians have included Sloane and Mead in the category of nostrum sellers even though there is no information that they were involved in the commercialization of these

⁶¹ Thompson 1928, p. 223-4

⁶² [Johns 1998, p. 505-7.](#)

products.⁶³ This unfortunate association was, as I will show below, a result of the invocation of famous figures by quacks and the historiographical inheritance of unchecked primary sources.

In the No. 237 of the *Philosophical Transactions* (1698) it was published a letter from a Mr. George Dampier, towards his brother, in which he exposed a cure for “the bitings of mad Creatures”. Mr. Dampier’s cure – a secret kept by his uncle – was a mixture of *Aures Judaice* and dried pepper. Sloane, at the end of the letter, remarked that after seeing the plant he identified it instead as *Lichen Cinereus terrestris*.⁶⁴ The story of this fortunate letter was later disclosed by Sloane, in a short pamphlet from 1745, where he confessed that Sir Robert Southwell, a former president of the Royal Society, was Dampier’s patron and in a conversation with him found out his family secret medicine, and then (at the insistence of Sloane) convinced him to procure a full account of it.⁶⁵

⁶³ Burnby (1988, p. 38) or Furdell (2002, p. 149) both claim that Sloane *sold* an eye salve, while Mead concocted a *secret* powder for the bite of the mad dog. Neither of them cite their source. Porter and Porter (1989, p. 129) make the same claim, referencing the autobiography of a bookseller, Francis Newbery (1743-1818); the actual quote is “In Dr James’s time it was not considered derogatory in the profession to sell a nostrum. Sir Hans Sloane, the President of the Royal Society, vended an eye salve, and Dr Mead, the Court Physician, sold a nostrum which it was pretended would cure the bite of the mad dog” (Francis Newbery quoted in Welsh 1885, p. 25). However, this source is not an authoritative one. Francis Newbery was the son of John Newbery, a famous bookseller involved in the selling of nostrums. Dr James, the inventor of a fever powder, sold his nostrum through John Newbery (and after his death, his son). It is easy to see, why Francis Newbery had all the interest in associating Dr James’ activity with that of two highly respected physicians of the time, Sloane and Mead. I could find no information that Sloane and Mead were actually involved in the selling of nostrums. It is true, that nostrums which used Sloane’s name were sold: for example a trade card advertised: “Sold here Sir Hans’ Sloane’s Milk Chocolate. Made (only) by William White, successor to Mr. Nicholas Sanders, No. 8, Greek St., Soho, London. Greatly recommended by several eminent physicians, especially those of Sir Hans Sloane’s acquaintance, for its lightness on the stomach and its great use in all consumptive cases. N.B. what is not signed with my name and sealed with my arms is counterfeit” (quoted in Porter 1987, p. 97). *The country housewife’s family companion* (1750), there is a reference to Sir Hans Sloane’s Eye-Salve, which was prepared after the receipt he printed in his “sixpenny pamphlet”, and which can be bought “from Shilling to two Shillings each” bottle (Ellis 1750, p. 316). Similarly, at the end of a book published probably in the 1770’s, the bookseller advertised some nostrums including “Sir Hans Sloan’s Salve for the Eyes, also an infallible Eye water” (Hoey [1770?]).

⁶⁴ Dampier and Sloane 1698.

⁶⁵ Sloane 1745, p. 14-7.

Fascinated with this cure, Richard Mead, also a Fellow of the Royal Society and physician of George II, insisted in 1721 to introduce the powder in the *Pharmacopeia Londinensis*, by the name *Pulvis antilyssus*.⁶⁶ Mead further advertised the *receipt* (for which he changed the mixing ratio of the two ingredients) in a one page pamphlet called “A certain cure for the Bite of a mad Dog”.⁶⁷ This receipt was picked by various authors of popular medicine books which offered practical advices to their audience, such as the *The lady's companion* (1743), *The art of cookery* (1747) etc.⁶⁸

In a pamphlet called *An Account of a most Efficacious Medicine for soreness, and several other distempers of the eyes* (1745), Hans Sloane disclosed a couple of receipts for preparing eye salves. Some of them were obtained from physician friends, or in one case, from an employee who for a pecuniary reward delivered his master's receipt. In these cases, Sloane was bound by secrecy and could not publicize them, even though his creed was to be “free and open” and not to “conceal or monopolize medicines of great use”.⁶⁹ As in the case of Mead, Sloane's receipt became very popular, and it was further published in medical receipt books

The association of Mead and Sloane with quackery seems to have appeared in the late 19th century. In *A Book about doctors* (1870), Jeaffreson refers to a list of quacks from volume eighteenth of the *Gentleman's Magazine*; trying to explain the acceptance of quackery during that time (first half of the 18th century), he concludes:

To account for society tolerating, and yet more, warmly encouraging such a state of things, we must remember the force of the example set by eminent physicians in *vending* medicines the composition

⁶⁶ Mead 1745, p. 166.

⁶⁷ Ibid.

⁶⁸ *The Lady's Companion* 1743, p. 371; Glasse 1747, p. 328-9.

⁶⁹ Sloane 1745, p. 14.

of which they kept *secret*. Sir Hans Sloane *sold* an eye-salve; and Dr Mead had a favourite nostrum – a powder for the bite of a mad dog. [my underlines]⁷⁰

After Jeaffreson's book, the association of Mead and Sloane with quackery is uncritically accepted by other early historians of medicine, and then by contemporary scholars.⁷¹ The actual passage in the *Gentleman's Magazine* (1748, volume 18) is significantly different. In a letter towards the editor, it is pointed out that

By *Nostrums*, I mean such medicins as are kept a secret for the use of proprietors, tho advertised (in the newspapers, &c.) for the benefit of the public. I have, therefore, taken no notice (here) of Sir Hans Sloane's eye-salve, or Dr Mead's powder for the bite of a mad dog, &c. the advertisements, they have permitted to be published, giving an account of the composition of the medicins, with the proper recommendation.⁷²

The next entrance in the journal is a long table with nostrums, and their inventors (including the price and the place where it could be bought). Neither Sloane nor Mead appeared on the list.⁷³ The two main details which were added to the story and crucially changed its meaning were the association of commercialization and secrecy with the names of the two fellows.

The Anodyne Necklace

Another example of quack pamphlets which referenced consecrated figures was a *Philosophical Essay* (1715) promoting the Anodyne Necklace. The pamphlet was dedicated to the Royal Society and approved by Dr. Paul Chamberlen. Besides, the text of the essay was

⁷⁰ Jeaffreson 1870, p. 112.

⁷¹ The same passage is found in Timbs 1876, p. 128 (Timbs is quoting Jeaffreson), and Thompson 1928, p. 327 (Thompson unfortunately has no critical references). This passage was also incorporated into the works of modern scholars: Burnby 1988, p. 38; Furdell 2002, p. 149.

⁷² Poplicola 1748.

⁷³ "PHARMACOPOEIA EMPIRICA" 1748.

drawn from famous authors such as Van Helmont, Robert Boyle and Sir Kenelm Digby.⁷⁴ Overall it devoted only half a page to the promotion of the necklace and other nostrums associated with it.

Paul Chamberlen (1635-1717) was the son of Dr. Peter Chamberlen, the founder of the most famous family of obstetricians in those times, discoverers and users of an important obstetrical forceps; his elder brother, Dr. Hugh Chamberlen was the more famous brother and universally respected as a doctor and public figure. The authors of the *Philosophical Essay* exploited the fame of the Chamberlen family to promote their product; on the title page, Paul's first name is dropped, thus cultivating the ambiguity of the surname.⁷⁵

The anodyne necklace, probably made out of beads of peony wood, was a remedy for teething. It was based on the controversial sympathetic principles, which claimed that certain substances could have an effect at a distance. Sympathy was a common concept in astrology or magic, but the *Philosophical Essay* used Helmont, Boyle and Digby's ideas to support its existence. The pamphlet starts by establishing

one universal Law of Nature, settled by the great Philosopher Sir Isaac Newton... that out of the Pores of ALL Bodies whatsoever, tho' never so hard and solid, there is more or less a constant Emission and Exhalation of subtle *Steams* and *Atoms*.⁷⁶

As a result of this law, all the effects attributed to sympathetic remedies “appear entirely evident and demonstrable”: “invisible Corpuscles and Atoms may pass from Remedies Hung only about the Neck, into the Body of the Person who wears them, and there produce great Changes”.⁷⁷

⁷⁴ Doherty 1992, p. 16.

⁷⁵ Doherty 1992, p. 31-2.

⁷⁶ Chamberlen 1717.

⁷⁷ Ibid, p. 18.

One advertisement for the Anodyne Necklace invoked the ‘Bills of Mortality’ to attract the attention of the parents:

It appearing by the Bills of Mortality that more Children die of their Teeth, and Convulsions, Fevers, Fits, Gripes, &c. caused thereby, than of most other Accidents Whatsoever: Nay, Mr. Graunt, F.R.S. [Fellow of the Royal Society] in his Observations on the Bills of Mortality, printed in the year 1676, takes Notice, that in and about London Only (the same may be said of Paris, or any other great City) in twenty Years time 71124 Children swept away, --Again; The Annual Bills of Mortality since the Year 1667 giving an Account that one Year with another about 12000 have Yearly been carried off in the just now mention'd Circumstances...⁷⁸

This passage appeals to a rather uncommon image of diseases for the 17th and early 18th century England. Instead of resuming to present diseases in terms of symptoms and effects on the diseased body, the text refers to the global effect of a disease on society. The anxiety of the parents is targeted by the quantification of the risks threatening their children.

Quacks acknowledged the disbelief and the doubts of the clients, and encouraged them to decide on the truth of their claims by experiencing the drug themselves. For example, *Turlington's Balsam of Life* (1750) compiled hundred of testimonials, some of which claimed:

I have sometimes perus'd the list of extraordinary and surprising cures said to be perform'd by your balsamic tincture, but could never be induced to believe one half of what you are pleased to urge in behalf of its efficacy and use, till I was convinced by ocular demonstration.⁷⁹

Behind the advertisement technique which meant to reassure the readers of the seller's honesty (and especially the veracity of the letters), the invitation to personal experience resembles to some extent the practice of the new science. Knowledge is not to be readily accepted unless it is verified by experience. Such a position should not be surprising, as the flood of quack ads and pamphlets combined with the democratizing character of the press in which anyone could be

⁷⁸ Quoted in Doherty 1992, p. 61.

⁷⁹ Quoted in Cody 1999, p. 111.

involved in the selling of nostrums, brought about the dissolution of classical authorities in a sea of doubts and disbelief.

The author of the *Philosophical Essay* abandoned the tone of previous quack pamphlets which ascertained the reader of the success of their infallible cures; instead, the Anodyne Necklace pamphlets borrow (and pervert) Robert Boyle's language to create a seemingly irrefutable statement:

Nor (as the same Mr. Boyle says) does the great Objection against these sorts of Cures, viz. that such or such a Person having ONCE made tryal of them, found them by chance not to succeed, seem alone enough altogether to reject them; because if they do Most commonly succeed, tho' sometimes they may chance to fail, yet that Probability of their succeeding, is a sufficient Motive to any one for a Trial; because if they do not succeed, they CAN do not hurt.⁸⁰

The author of the pamphlet uses the logic of the new science to reinterpret the inefficiency of the nostrum in his favor: a possible failure should not discourage the client, but on the contrary it should motivate him. This language of probability borrowed from Boyle actually closely resembled the expectations of the clients; as a contemporary noticed,

The patient, like drowning man, catches at every twig, and hopes for relief from the most ignorant, when the most able physician give him none.⁸¹

It is not credulity, but despair which pushes the sick to believe in chance.

The sources of knowledge

Quacks usually disclosed, at least in part, their main sources of knowledge in creating the nostrums. In most cases, *experience* is dominating the list. Such instances combined the

⁸⁰ Chamberlen 1717.

⁸¹ *The Spectator* [1723], vol. 8, p. 69.

experience of the practitioner who perfectly tuned his skills and drugs for a long time, with that of the patient. Daffy boasted that he had obtained “the true Composition together with the Secret of Right Preparing”, which he had been using for more than twenty years as a cure.⁸² Most quacks guaranteed that they have tested the nostrum on themselves, beyond numerous other people – “so that what I assert, is not only Experience gained on practice upon others, but such of which I myself am sensible, and at this time feel the Benefit”.⁸³

These are secrets which were not easily obtained, but only through “long and chargeable experience”.⁸⁴ Advertising his *Elixir Salutis*, Thomas Witherden confesses that even though he was not a doctor,

I have been my own Physician and Patient, my Education and Learning corresponding to my condition of Body, which from Infancy being unhealthy, prompted me to a serious and continual study of Physic...

Other quacks obtained their knowledge through travel; ‘Chevalier’ Taylor met with Boerhaave, Haller, Morgagni, Winslow, Monro, and Linnaeus.⁸⁵

Not all quacks presented themselves as the author of the nostrums. Some declared they were only fortunate to find the secret of its preparation from a famous person. We have already seen above, how some invoked the name of famous physicians or of the fellows of the Royal Society to increase the prestige of their drug. In other cases, no name was given for the actual author. For example, the *Elixir Magnum Vitae* was allegedly discovered by a

Person of Quality, that for many years had travelled into most parts of the Christian World; Who being a curious inspector into nature, and about Forty years a Student in Physick, for his own Delight and Satisfaction (but never for Profit or Gain) most happily found this *Secret* or *Arcanum*,

⁸² Daffy 1673.

⁸³ Winter 1664.

⁸⁴ Daffy 1673.

⁸⁵ Porter 1987, p. 85.

the only immediate Helper or Restorer of Nature [...]. Now having had the Honor of the Worthy Persons acquaintance for some considerable time, and thereby contracted great Friendship he was pleased freely to communicate and impart this Secret to Me, with the true manner of its preparation and all its particulars.

These particular presentations can be further elucidated by referring to the larger context of 17th century culture. Shapin argued that Boyle carefully avoided presenting himself as the kind of person to whom authorship was normal; a “nonreluctant authorship was a handicap to credibility since interest might be plausibly attached to the published claims”.⁸⁶ For these reasons, to boost the validity and the persuasiveness of their knowledge-claim, quacks had to present their products as the result of a disinterested activity.

The Experience of Knowledge

The commercialization of drugs had a great influence on self-diagnostics. Sufferers have generally tended to treat themselves, but the use of quack nostrums redefined this practice. The reader of an ad or a pamphlet had to match his symptoms with the ones described in the text. After listing a series of ambiguous symptoms which greatly overlapped with other diseases (pains in the head, nose, shoulders, legs, bones, etc.), a quack concludes: “whoever languished under *any* of the preceeding Symptoms, may conclude himself infected with that Disease: No Man hath all the Symptoms at once, ‘tis ill enough to have some” [my underline].⁸⁷ This type of descriptions of the symptoms encouraged the readers to self-identify their ills with the advertised diseases. The quack also tried to convince the possible client of the great advantage of

⁸⁶ [Shapin](#) 1994, p. [179](#)

⁸⁷ Woodward 1690.

prophylactic use; if properly treated in advance, one might avoid the great nuisance of classical remedies which involved “violent Vomits, dangerous Purges, salivating with Mercury, Blisters, Issues, excessive Bleeding”.⁸⁸

At the same time, the patient was encouraged to carefully study the reactions of his body to the cure. Even though the nostrums were pretended to be harmless, it was recommended that they should be taken as much as “the Body can bear, or the Disease require”.⁸⁹ Witherden admits, “the Constitution of persons are so different, that it is impossible the same Dose should serve all people; therefore something must be left to the discretion of those that use it, supposing them to know the temper of their own Bodies”.⁹⁰ This is a position which resembled that of traditional physicians who pretended their cures were specifically tailored for each patient. In the case of quack treatments, the client is left with adapting the treatment to his needs (only the dosage, and not so much the ingredients of the drug).

Also, the inefficiency and sometimes the harmfulness of the nostrums made the patients extremely sensitive to all possible symptoms and effects of a certain cure. Ads incessantly assured the customers of the safeness of their drugs; some pamphlets encouraged them to be patient as the cure was not immediate and sometimes it necessitated three or four bottles of the elixir, while others promised an almost instantaneous effect, after one or two hours after taking the drug.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Witherden 1679.

Chapter 3: The Vermin and the Microscope

Introduction

As a result of the vitriolic attacks against quackery, the authors of pamphlets and advertisements for nostrums were always careful to dissociate themselves and their products from the bad reputation of quackers. In their pamphlets, they would either attack the so called quacks to prove they were not part of them, or excuse themselves by invoking the example of college-physicians who also advertised their own drugs. One of the most mordant accusations brought against them was that of *empirickism*. In the seventeenth century *quack* became synonym to *empirick*, or the person who pretends to be skilled in physics by mere practice, without possessing any kind of regular education.⁹¹ Quacks and empiricks were accused of lacking “real knowledge”. If their drugs worked, it was by mere luck, and not because of a well-thought treatment.

To counter these attacks, towards the end of the seventeenth century, quack pamphlets became increasingly elaborate. In Figure 2-Figure 5 we can see a couple of examples of title pages for such pamphlets. The usual emphasis in the title page (see Figure 2) was on the effects of the medicine or on the patients it cured (especially if famous, such people would make the front page). In the case of the “cathartique and diuretique Pills” the advertised product is clearly displayed being written at the top of the page in the largest fonts. However, in Figure 3 and

⁹¹ Hanson 2009, p. 9

Figure 4 the actual advertised product is not conspicuously visible. The “worm pamphlet” (fig-2) advertised the “famous medicines, entitled, *Pulvis Benedictus*, &c.”, but these lines are in the lower part of the page written in small fonts. Similarly, the “gout pamphlet” (fig-3) advertised the Anodyne Necklace, even though this part is not the central one.

Besides the modifications in the title pages, there are also important changes in the content. Instead of presenting only the miraculous effects of their advertised medicines, or of publishing a list of the satisfied customers (including their name, address and illness) and their ‘thank-you letters’, pamphlets like those in figs.2-3 offer a different story. The actual advertisement is *masked* behind a semi-coherent text which describes some disease, allegedly cured by their nostrums. As a response to the accusation of ignorance brought against them, quacks started presenting their products as part of a display of knowledge; also, they started cultivating the image of learned men who supported their claims not only by practice and experience but also by reason and science. In their attempts to persuade their audience, they started incorporating references or possible connections to the elite science communities.⁹²

In what follows, I will analyze in depth the pamphlet on the “Historical Account of Worms” (fig-2). Usually, historians who approached the topic of quackery have preferred to focus on the general traits of quack culture.⁹³ The only case study and in depth analysis of a quack pamphlet and its sources is offered by Francis Doherty.⁹⁴ However, Doherty was mainly interested in the advertising methods, and less in the role played by these pamphlets in displaying a form of knowledge.

⁹² One of the initial “Anodyne Necklace” pamphlets (1717), referred to Newton and Boyle on its front page, and was dedicated to the Royal Society. See Chamberlen 1717.

⁹³ Porter 1989

⁹⁴ Doherty 1992

What is unique about Clark's pamphlet is the direct reference it makes to the microscope. Until his pamphlet, there are no other texts which I am aware of that advertised their products by invoking the authority of a scientific instrument. Their usual references are to the authority of the product itself (usually described as famous, miraculous etc.), of ancient or foreign authorities, or of some undivulged secret.⁹⁵

As stated in the introduction, in analyzing such pamphlets I am interested in tracing the changes in the use of certain scientific ideas or objects (even if only at a literary level), compared to their original context. Also, in the case of Clark's pamphlet I will be able to infer how his presentation encourages a different way of gazing at nature (compared to the natural philosophical one), which has deeper implications for the way diseases were perceived.

The Sources of the Pamphlet

R. Clark, a *chymist* living at the Golden Ball in Devonshire-street, distributed gratis along with his nostrum against worms a pamphlet of around thirty pages entitled *Vermiculars destroyed, with an historical account of worms, collected from the best authors as well ancient as modern: and experiments proved by that admirable invention of the microscope : with directions for the taking those most famous medicines, entituled Pulvis Benedictus, etc. : also diagnostick signs of worms and signs of health in children, with the various causes of vermiculars* (fig-2). The first edition of this text which has been preserved dates from 1690, but

⁹⁵ Initially what attracted me to this pamphlet was its advertisement bill which was dated by the British Library to 1661 (see Clark [1661]). However, as I will mention below (see note), this date is implausible, and most probably it was published close to 1690. If the date of the bill was indeed 1661, then R. Clark ideas would have predated a couple of years the studies of his better reputed contemporaries.

as it is indicated in the pamphlet there were previous editions before it.⁹⁶ The pamphlet and the nostrums seem to have been rather successful, as in 1693 an extended sixth edition was published. Beyond this year there are no other preserved editions in the British Library, but the pamphlet continued to be referred to in library catalogues from the early 18th century.⁹⁷

In the title page, R. Clark promises to give an account of “experiments proved by that admirable invention of the microscope”. Two of the largest words on the page are *experiments* and *Microscope*. The above line hides an intriguing detail: the experiments are not doing the proving, as we are used to, but they are the ones being proved. This small detail can be understood by referring to what was mentioned above: quacks were being disparaged for their experimental or *empirick* methods. Here however, R. Clark did not directly invoke the authority of experiment as other quacks would, but he reinforced it by referring to the authority of the Microscope. The actual word *Microscope* is larger than the *experiments* one.

When reading quack pamphlets one must always be careful not to attribute their content to the declared authors. Most of the time such pamphlets almost completely plagiarized other sources, and only to a small extent they did contain some original parts. This is also the case with R. Clark's account which is almost entirely based on two treatises: William Ramesey's *Helminthologia, or, Some physical considerations of the matter, origination, and several species of wormes macerating and direfully cruciating every part of the bodies of mankind ...* (1668) and

⁹⁶ Clark 1690, p. 31. The 1691 edition (see Clark [1691]) of the pamphlet from the British Library is most probably an older version. I drew this conclusion after I closely compared it with the other two surviving versions of the pamphlet (the one from 1690 and the one from 1693). Both the 1690 and 1693 versions have the same publisher (J. Wilkins) and same engravings, while the allegedly 1691 version has J. Wallis as publisher and is lacking the engravings. Also, in terms of content, the 1691 version is the shortest; passages which are identical in the 1690 and 1693 versions are slightly altered in the 1691 one. All this suggest that the 1691 version of the pamphlet is probably misdated, and it should correspond to a pre-1690 edition. A catalogue from Philadelphia mentions a 1691 version of this pamphlet as the fifth edition. (see *Library Company of Philadelphia* [1789], p. 77).

⁹⁷ There is an entry for “Clark's Historical Account of Worms”, dated from 1718 in Osborne [1747], p.

Marchamont Nedham's *Medela medicinae a plea for the free prosession and renovation of the art of physick* (1665).⁹⁸ However, compared with other pamphlets, Clark was partially declaring his sources. He mentioned from the beginning the name of William Ramesey, "Physician in Ordinary to His Majesty Charles the Second", and on the side of the page "*M. N. Med. Londinensis*".⁹⁹ The name of the books are not stated anywhere.

The *Historical Account of Worms* reproduces *ad litteram* many passages from the original texts without explicitly indicating this. Sometimes the narrating voices become indistinguishable creating a confused role for the author. Thus, when evaluating such pamphlets one must realize that most of the time the author does not play a role in writing the text itself, but in editing and selecting it. Even so, parts of the pamphlet which include the preface, the directions for taking the Pulvis Benedictus, the advertisement etc. were most probably written by Clark.¹⁰⁰ By closely comparing the text of the pamphlet with Nedham's *Medela Medicinae* and Ramesey's *Helminthology*, I will determine which were the parts that appealed to Clark, and why they were selected. Even though slightly tedious, such a comparison is methodologically promising. We have very little knowledge on how science books were read by lay audiences, and any clue is extremely valuable.¹⁰¹

Even though Nedham's and Ramesey's treatises were written a few years apart, there was a great cultural and political gap which separated their authors. Marchamont Nedham (1620-1678) studied medicine, but switched to journalism afterwards. He led a restless life – he was

⁹⁸ See Nedham 1665, Ramesey 1668.

⁹⁹ These references to the authors reproduce the actual names and titles from the front page of the above treatises. Thus, the unintelligibility of Nedham's name is not a conscious choice of Clark.

¹⁰⁰ Even though there is no unambiguous way of deciding this, the shift from italic to normal fonts sometimes suggests a change in the narratorial voice.

¹⁰¹ For a survey of the research on the practices of scientific reading see Blair 2004 and Johns 2003. Even though extremely insightful, their discussion is limited to a gentle audience.

employed by Charles I, Cromwell, and Charles II for his sharp pen, but each time he lost his status when the power shifted. After the 1660 restoration of the monarchy, Nedham was pardoned, and he practiced medicine for the rest of his life. However, even after 1660 Nedham continued his pamphleteering activity. *Medela Medicinae* was “a plea for the free profession and renovation of the art of physics” and an attack against the College of Physicians.¹⁰² Nedham was involved in the “Society of Chymical Physitians”, a group which tried to emulate the activity and methods of the Royal Society. The College of Physicians was in an open conflict with the “Society of Chymical Physitians” whose members they regarded as *empiricks* and “pseudochymists”.¹⁰³

William Ramesey or Ramsay was a physician and astrologer, who graduated M.D. at Montpellier in 1652, to become a licentiate to the College of Physicians and a physician in ordinary to Charles II.¹⁰⁴ His treaty on helminthology appears to be the first English textbook on this subject.¹⁰⁵

Contagium Vivum

Even though Ramesey and Nedham were part of two different medical traditions, their treatises, to which I referred above, had something in common. Both of them promoted the idea that invisible vermin or worms played a role in the spreading of diseases or in their causation. Such theories, which came to be known as theories of animate contagion (or *contagium vivum*)

¹⁰² *The Dictionary of national biography*, v. 14, pp. 159-164

¹⁰³ Heyd 1995, pp. 148-50

¹⁰⁴ *The Dictionary of national biography*, v. 16, p. 705

¹⁰⁵ Grove 1990, pp. 2-3

were made famous by the Jesuit scholar Athanasius Kircher. In 1658, Kircher published a famous treaty, *Scrutinium Physico-Medicum Contagiosae Luis, quae dicitur Pestis* where he argued that all substances are full of worms that propagate infections.¹⁰⁶ Nedham was the first author who reported Kircher's discoveries and translated them in English in his *Medela Medicinae* (1665).¹⁰⁷

R. Clark copied a large part of Nedham's chapter on "The Alteration of the Nature of Diseases, in reference to *Vermination* or Breeding of Worms" where he gave a historical account of the *contagium* theory, including Kircher's work. The main part of the chapter is made out of six experiments copied from Kircher's book. All of them were reproduced *ad litteram* in Clark's pamphlet.¹⁰⁸ Clark also reproduced with great fidelity even the smallest details of the *Medela Medicinae* such as the margin notes with citations and definitions, which included the definition for a microscope.

If the entire experimental description was taken from Nedham, the rest of the pamphlet reproduced parts of Ramesey's study. As I mentioned above, Ramesey was also a supporter of a theory of contagion intermediated by the influence of invisible vermin. However, if for Nedham the microscope played an essential part in supporting the theory he shared, Ramesey only mentioned it once and even then with great inhibition. After he excused his impudence for using the microscope as evidence ("I know I shall meet with many find-faults for this tenet, being not common"), he concluded that:

¹⁰⁶ Wilson 1995, p. 157

¹⁰⁷ *J R Coll Physicians Edinb* 2008; 38:376-7; see also Nedham 1665, pp. 175-203

¹⁰⁸ Actually, Clark ended up publishing seven experiments, where experiment VII corresponds to experiment VI in Nedham's work, while experiment VI reproduces a different passage from the same book. See Clark 1690, pp. 11-14; Nedham 1665, pp.191-7, 200. Experiment VI reproduced by Clark refers to an experiment made not by Kircher but by Hauptman (for Hauptman's contribution to the *contagium vivum* see Wilson 1995, 155).

I shall refer to their own eyes to justifie what I say, if they will take but the pains to view any corrupt blood with a Microscope when it is cold, or any Wounds, Ulcers, or any sore, Bubo's or Botch, where they shall plainly perceive innumerable vermins.¹⁰⁹

This view was greatly influenced by Kircher (and probably even by Nedham whose work had been published three years before), but Ramesey did not state it. Ramesey was extremely circumspect because of his position towards *empiricks*, which included the view that “all rational men must needs know they can never have experience in anything of Physick”.¹¹⁰ His animosity against quacks made him publish the “method of cure” part of the treaty in Latin. He motivated his decision by arguing that a Doctor should be a teacher and he should not “furnish his Patients with Receipts and Medicines for their Destruction only to please their Idle Fancies”.¹¹¹

In the title page, R. Clark borrowed more from Nedham's language than from Ramesey's discourse. Nedham claimed that his doctrine was “established by demonstration of irrefragable Experiments”.¹¹²

Until now, probably it is far from obvious how R. Clark had used all this information to support his medicine. Things become clearer as one reads the diseases for which Clark's powders were recommended. Besides the visible intestinal worms, his powders were an antidote “against the Plague, Spotted Fever, and all Pestilential Diseases”.¹¹³ The work of Nedham and Ramesey's allowed him to support that worms are “the Cause of the Plague, the Purples, Fevers and most Diseases”.¹¹⁴ As a consequence, he could sell the drugs for normal intestinal worms (“the four common worms are Latus, Asacries, Teretes, and Cucurbitini”) as an almost universal

¹⁰⁹ Ramesey 1668, p. 10

¹¹⁰ Ibid, p. 368

¹¹¹ Ibid, p. 366

¹¹² Nedham 1665, p. 198

¹¹³ Clark 1690, p. 29

¹¹⁴ Clark [1661]

remedy, which besides killing the worms, it also “carries off the Verminous Matter, Rectifies and Sweetens the whole Mass of Blood, creates a fresh and helpful Complexion in such who are defective by any WORMATICK Matter”.¹¹⁵

R. Clark was not the first one who was inspired by the theory *contagium vivum* to apply worm medicines to different, if not most, diseases. Ramesey and Nedham gave many examples of suffering patients for whom the normal treatment had no effect until it was replaced by worm medication. Treatments based on such theories continued to be popular through the beginning of the 18th century. For example, in Paris in 1726 a quack named Boile claimed that all diseases are caused by a distinct species of minute insect, and that all these creatures have an antagonistic pair of insects which would kill them.¹¹⁶

The Uses of the Microscope

The use of the microscope to postulate a treatment was in stark contrast with its common use in scientific circles or its depiction in literature. The microscope was one of the most celebrated instruments of the New Science. Robert Hooke's *Micrographia*, published in 1665, was one of the symbols of the Royal Society. It was lavishly illustrated with one hundred engraved plates which represented varied subjects from fleas and gnats to the section of a cork.

Even though praised by the Fellows of the Royal Society, the microscope became a mockery for literary witticisms. Thomas Shadwell in his play the *Virtuoso* from 1676 mocked the experimental enterprises of the New Science. Inspired by Hooke's *Micrographia*, Sprat's

¹¹⁵ Ibid.

¹¹⁶ Wilson 1995, p. 170; Belloni 1961

History of the Royal Society and the *Philosophical Transactions*, Shadwell distorted their results and made them ludicrous.¹¹⁷ Shadwell ridiculed as futile their endeavors, as being carried on by “one who has broken his brains about the nature of maggots, who has studied these twenty years to find out the several sorts of spiders, and never cares for understanding mankind”.¹¹⁸ The virtuoso was criticized for having spent “two thousand pounds in microscope to find out the nature of the eels in vinegar, mites in a cheese, and the blue of plums which he has subtly found to be living creatures” which were “good for nothing but useless experiments”.¹¹⁹ Sir Nicholas Gimcrack, the virtuoso, admitted that “we virtuosos never find out anything of use, ‘tis not our way”.¹²⁰

The critic of the study of insects under the microscope without any precise aim was continued by the essays of Joseph Addison (1672-1719), who declared that it is:

the mark of a little genius to be wholly conversant among insects, reptiles, animalcules, and those trifling rarities that furnish out the apartment of a virtuoso... It is indeed wonderful to consider, that there should be a sort of learned men who are wholly employed in gathering together the refuse of nature, if I may call it so, and hoarding up in their chests and cabinets such creatures as others industriously avoid the sight of.¹²¹

On a different note, an Italian physician declared in 1689 that “a knowledge of the marvelous conformation of these entities will not advance the art of curing the sick”.¹²²

Besides being an object of scientific research, the microscope soon became also an object of leisure. In a *Discourse* concerning the microscope delivered in 1682, Robert Hooke depicted a dim future for this instrument. Hooke thought the microscope had become exclusively a

¹¹⁷ Lloyd 1929

¹¹⁸ Shadwell 1966, p. 22

¹¹⁹ Ibid; p. 101

¹²⁰ Ibid, p. 119

¹²¹ Addison 1863, p. 155-6

¹²² Quoted in Wilson 1995, p. 232

recreational toy, and that with the exception of Leeuwenhoek there were no others interested in using it as a research tool.¹²³

Even though they lauded the benefits the New Science would procure society, many natural philosophers were attracted by the uselessness of certain curiosities.¹²⁴ This is in stark contrast to the way the microscope is invoked in Clark's pamphlet. In this case, the discovery facilitated by this instrument is of vital importance for the well being of mankind; at least for Clark.

The Scientific Gaze

Even though the attacks of Shadwell and Addison were based on a distorted reality and motivated by political purposes, they did touch on a true and important aspect of the natural philosopher's attitude towards nature. Below, I will compare the gaze on nature of a natural philosopher with that constructed in Clark's pamphlet.

To make this difference obvious, it is enough to observe the language employed by the Royal Society fellows to describe insects, worms or microscopical creatures. Hooke, in the *Micrographia*, when referring to a fly comments that "[n]or was the inside of the body less beautifull than its outside, for in cutting off a part of the belly and in viewing it,... I found, much

¹²³ Wilson 1995, p. 227

¹²⁴ The "utilitarian" benefits from the Royal Society were best expressed by Thomas Sprat in his *History* and Joseph Glanvill in *Scepsis scientifica* (their position was attacked as *enthusiasm* by Meric Casaubon and Henry Stubbe; see Heyd 1995). For the interpretation of useless curiosity as praiseworthy disinterestedness see Daston and Park 1998, p. 309.

beyond my expectation, that there were abundance of branching of Milk-white vessels”.¹²⁵ This is only of the many instances in which Hooke finds aesthetic pleasure in observing such creatures; he described “this kind of Experimental Philosophy as matter of high rapture and delight of the mind, but even as a material and sensible *Pleasure*” [my italics].¹²⁶ The same pleasure is found in Leeuwenhoek’s letter towards the Royal Society in which he described the *animacula* on the roots of duck-weed by referring to them as “delightful animaculum”; he and other curious Gentlemen “were struck with the greatest amazement at the sight of such an inconceivable Rotation” as that described by these creatures.¹²⁷ For Leeuwenhoek presenting the discovery of these creatures became a leisure and social activity: “I invited some Gentlmen to come and partake of the *agreeable* spectacle with me” [my italics], and satisfy their curiosity in viewing the *animacula*.¹²⁸ Leeuwenhoek’s delight is clear in observing the “little creature” and its “wonderful kind of a motion”.¹²⁹

Edward Tyson, one of the leading physicians of the Royal Society at the time, employed a similar language when describing worms. When referring to the *Lumbricus Hydropicus* he says that:

we may be less surprised at the odd structure in this worm; since what I have observed of the *Lumbricus Latus* and of the *Teres* is as wonderful, tho in a different manner. And whoever has the curiosity of observing the inwards of the vast kingdom of insects, cannot want subjects enough for exciting his admiration.¹³⁰

Such descriptions are not a surprise for the reader used to the seventeenth century clichés of natural philosophical investigations which were full of “musing admiration, startled wonder,

¹²⁵ Hooke 2003, p. 184.

¹²⁶ Hooke 2003, p. xxxi. For a more thorough analysis see Daston and Park, p. 313-4

¹²⁷ Leeuwenhoek 1704, p. 1786

¹²⁸ Ibid, p. 1791

¹²⁹ Leeuwenhoek 1702, p. 1306

¹³⁰ Tyson 1686, p. 510

then bustling curiosity”.¹³¹ I presented these descriptions to emphasize the sharp contrast between the scene of admirable creatures which fill with wonder the natural philosopher, and the images which transcends out of Ramesey’s or Clark’s texts.

R. Clark jumped over the description of regular worms to present a long list of rarities collected from the Ancients. There are tens of examples of hairy worms, worms with forked or half-moon tails, worms of tens of feet long, or short and thin as a piece of hair, or as Ramesey’s poetically refers to them, worms “of horrid shapes and forms” or “monstrous shap’t worms”.¹³² Many of these examples can be “admired” in fig-4.

Initially, the enumeration of the worms in Clark’s and Ramesey’s books resembles that of a *Wunderkammern*. The sense of wonder is cultivated by their novelty, rarity and strangeness; Ramesey gave up all hopes to classify them as “touching the number of the several species of worms, I must conclude them indefinite”.¹³³ Also, their description is brief (especially compared to the detailed analysis of some natural philosophers, like Tyson). Similarly to a *Wunderkammern*, the sense of wonder does not arise from their particularities (as in the discussion of natural philosophers), but from their general impact.¹³⁴ Even though, the list of worms shares many similarities with the sight of a *Wunderkammern*, it also has a different dimension. The worms are not situated in an external space (like a box, or a chamber), but inside the human body. When describing these worms, Clark, following Ramesey, specifies where they were found (the most spectacular specimens were found in the heart or the brain). The list of strange worms is accompanied by Clark’s own list of patients (and their worms) which reminds

¹³¹ Daston and Park, p. 303. For an analysis of this phenomena see ch. VIII.

¹³² Ramesey 1668, p 21, p. 315

¹³³ Ibid.

¹³⁴ For more on the topic of *Wunderkammern* see Daston and Park 1998, ch. VII

us that the purpose of the author is to impress the reader in a particular manner. Instead of a remote external reality, we are faced with an internalized one.

The gaze of the natural philosopher was trained to discover pleasure and beauty in the contemplation of an external reality, even if this was made out of worms, insects or microscopical creatures. Clark's list creates repulsion; the worms are monstrous, and they haunt the human flesh.¹³⁵

The visible world of worms is then extended to the microscopical one. Referring to the "Microcosmical Helmintick Vermin", Ramesey describes them as "deformed, monstrous productions".¹³⁶ Also, Daniel Defoe in his pseudo-description of the plague says "there might living Creatures be seen by a Microscope of strange, monstrous and frightful Shapes, such as Dragons, Snakes, Serpents and Devils, horrible to behold".¹³⁷ They have inherited the same monstrous shapes and forms of the visible worms.

For both Ramesey and Nedham it was vital to properly understand the causes to be able to treat a disease. However, in the case of Nedham the causes began to be personified: "if they [the physicians] did rightly apprehend the nature of *the lurking Enemy*, perhaps they might by appropriate remedies" [my underline].¹³⁸ The neutral tradition of humors and putrefaction was now replaced by a much more vivid image. Clark himself picked up this language, and in the

¹³⁵ In the case of Clark, such worms are repulsive not because of their relation to nature as in the case of monsters (which were *contra naturam*; see Daston and Park 1998, p. 209), but because of their relation to the body.

¹³⁶ Ramesey 1668, p. 368

¹³⁷ Wilson 1995, p. 169

¹³⁸ Nedham 1665, p. 200

short preface he authored, he referred to the vermiculars as “strange and direful Enemies” which we must “destroy them, or their corrupt, gross, viscid matter”.¹³⁹

Now, we have a complete picture of the gaze favorized by Clark’s pamphlet. First, its subject is directly connected to the observer, not only through a causational relation (worms being considered an extremely serious cause of diseases), but also through direct contact (worms are not presented in a neutral space, but inside the human body). Second, the subject is regarded with cultivated fear and animosity. Overall, this gaze is extremely novel because of the way it reconceptualizes the sense of disease, which instead of being classically perceived as a humoral imbalance, it is seen as caused by a deadly enemy which hides within our flesh.¹⁴⁰ However, neither of the two authors speculated on the moral implications of conceptualizing disease not as a humoral state of the body, but as an organism under attack.

¹³⁹ Clark 1690, p. 3

¹⁴⁰ Neither Clark nor Ramesey exploit the implications of this conception. For Ramesey, the presence of worms could be caused by anything: by supernatural causes (God and his Angels, the Devil and his Imps, Magicians, Conjurers, Witches etc.), universal causes (heaven, stars, planets), or other causes such as parents, air, meat, drink, sleep, imagination, sorrow, anger, fear, a bad nurse, cholera, melancholy etc. When Ramesey discusses these causes, part of his argumentation is focused in proving the existence of their authors (in the case of witches or wizards etc.) or the extent in which they can have an actual influence (in the case of devils, or stars etc.). The discussion of the causes makes two thirds of Ramesey’s book. The connection between these causes and the apparition of the worms is usually made by invoking the influence of these causes in corrupting the humours, which through putrefaction give birth to worms. Thus, even though Ramesey shares some similarities with Kircher and Nedham, he remains to a great extent faithful to a slightly modified humoral theory. This position has deep implications on the morals of the patient: any immoderate passion can cause a putrefaction of the humors, which would cause the apparition of worms. Clark borrows this general framework (he enumerates the causes, without going into great details).

AN
ADVERTISEMENT
 Concerning those most Famous
 Cathartique and Diuretique
PILLS.
 Being an Incomparable Medicine in all
 Chronical and Dangerous Diseases;
 Wherein was Cured
 The late Lord General *MONCK*
 Of the *DROPSIE*:
 Some hundreds before, and many since, having
 received absolute Cure thereby.
 And it is also a most certain Remedy against the
SCURVY, with all other thin, fat, and watry Humours.
 It Purifies and sweetens the Blood, and
 prevents Infectious Distempers.

Prepared only by
WILLIAM SERMON
 Doctor of Physick, and one of his Majesties
 Physicians in Ordinary.

The Fourth Edition Enlarged.

LONDON,
 Printed for the Author, and *Edward Thomas* at the
Adam and Eve in Little Britain, 1671.

Figure 2 - 1671 Pamphlet (see Sermon 1671)

VERMICULARS
DESTROYED,
 WITH AN
118p. 6. 44
Historical Account
 OF
WORMS:
 Collected from the Best Authors,
 As well Ancient as Modern.

AND
EXPERIMENTS
 PROVED
 By that Admirable Invention of the
Microscope,
 WITH
 Directions for the taking those most Famous
 Medicines, Entituled, *Pulvis Benedictus, &c.*

ALSO
 Diagnostick Signs of *WORMS*, and Signs of Health in Children:
 With the various Causes of *Vermiculars*.

By *R. C. Chymist*, Living at the *Golden Hall in Devonshire-stre*
Quench without *Bishopgate. 1692* 10 15

The Sixth Impression.

London, Printed by *J. Wilkins*, for the Author

Figure 3 - 1693 Pamphlet (see Clark 1693)

A New System OF THE GOUT AND RHEUMATISM.

Drawn from Reason, Anatomical Observations,
and Experience.

By the Author of the PRACTICAL SCHEME.

This Book is GIVEN GRATIS Up one pair of Stairs at
the Sign of the Celebrated NECKLACE for Childrens
TEETH, near the *Rose Tavern* without *Temple-Bar.*
At the *Golden-Key* over against the *Kings-Arms Tavern* in
King-street, Westminster.
At *Mrs. Garway's* at the *Royal Exchange Gate* next *Cornhil.*
And at *Mr. Cooper's* the *Corner of Charles-Court* by
Hungerford Market in the *Strand.*

AT which Places is also GIVEN GRATIS in *English:*
French: High German: Low Dutch: Spanish: Italian:
Portuguese: Swedish: Danish: and Polish Languages,
The 20th Edition of The PRACTICAL SCHEME of
Secret Injuries, and Broken Constitutions, by *Fall Living:*
Former ill Cures: Salivations: and Mercury.

Together with The Philosophical ESSAY Dedi-
cated to The Royal Society upon The Celebrated

ANODYNE NECKLACE.

Recommended by *Dr Chamberlen* for Children's Teeth:
&c. (Price 5s. Sealed up with Directions in *English,*
and *French* for Wearing it) And a large Index to each;

Entred in the Hall Book.

LONDON: Printed by *Henry Parker* at the *Bible* in
Goswell street. 1737.

Figure 5 - 1717 Pamphlet (see Anon. 1717)

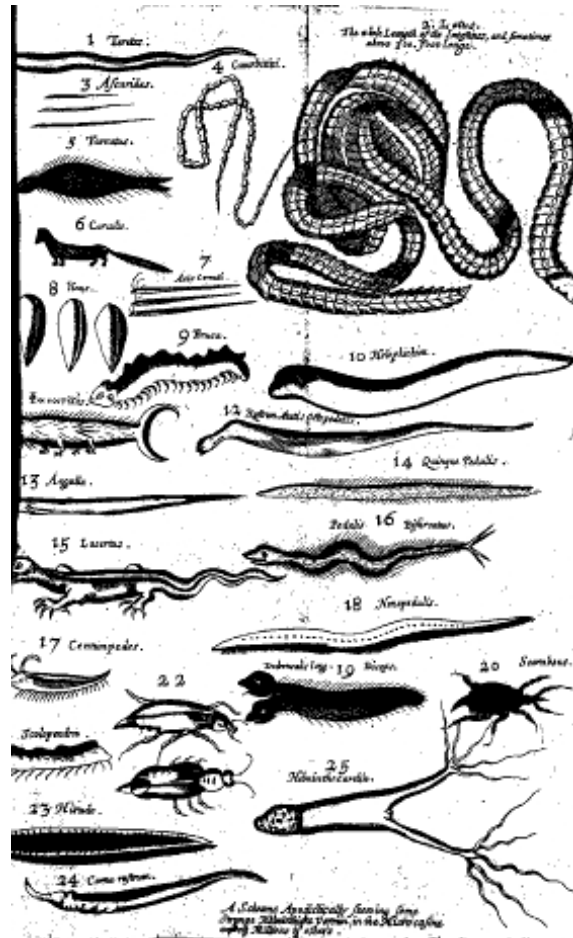


Figure 4 – Ramesey 1668, p. 16

Conclusion

The subject of quackery or medical advertisements is a vast one spanning many centuries and touching social, economical and political problems. It is a world in which it is easy to get lost unless you have a criterion which allows you to focus and interpret the numerous sources. In this paper I centered my attention on the published texts of quacks as it permitted a direct view of their display of knowledge. Traditional approaches which reconstructed the interaction of common people with scientific ideas have generally used the haughty and disdainful description of natural philosophers about popularization phenomena. Besides being a history of popularization of science and medicine, this approach had the advantage of focusing on a particular category of texts which had a prime commercial purpose. As a result, these texts and the ideas they contained were specifically shaped for their audience, and also they were advertised through a distribution network which maximized their impact. This particular context allowed us to explore the ideas which most appealed to the public, and the way novel concepts which had advertising purposes could have shaped the experience of the audience.

In terms of the content of the pamphlets, it is important to notice that even though some quacks profited from the authority of the New Science, either by invoking the names of important scientific figures as Boyle, Sydenham, Sloane, or Mead or by referring to one of its characteristic instruments – the microscope, they did not include in their advertisements any references to the new scientific method itself. No cure was advertised as being *invented* with the

help of the New Science; its authority was used only to support and explain the miraculous effects of the nostrums. Clark easily extended the effects of his *pulvis* from a mere worm remedy to a universal cure by referencing the microscope as evidence that most disease are caused by vermin. His powder was hardly different from any other classical or popular remedy. Similarly, the Anodyne Necklace was far from being the first of this kind, but it attracted the attention of the public through its advertisements, and the “authoritative” explanation of its effects. In essence, in the described period, there is no significant change in the production of the drugs or the nature of the recipes, but only in their presentation. The medical knowledge of the quacks remains defined by the classical Galenic medicine of the humors.

The invocation of the new science was both a clever advertising technique, in a period in which the fame of the Royal Society (the main proponent of this philosophy) was rapidly increasing, and a way of avoiding accusations of empiricism. Only in the second half of the 18th century, the methods and knowledge of the new science infused medical *practice*. Electricity and magnetism provided not only wonderful spectacles but also new “cures”, as in the famous case of *mesmerism*.¹⁴¹ A further subject of study would be to analyze the link between these two periods, and to understand the source of these differences.

¹⁴¹ [Schaffer 1983, p. 3.](#)

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