CrossMark

Science in Context (2020), **33**, 363–384
doi:10.1017/S0269889721000193

CAMBRIDGE UNIVERSITY PRESS

RESEARCH ARTICLE

Charlatan epistemology: As illustrated by a study of wonder-working in the late seventeenth-century Dutch Republic

Koen Vermeir

Université de Paris, CNRS, SPHERE, F-75013 Paris, France
Email: koen.vermeir@paris7.jussieu.fr

Argument
This article highlights the epistemic concerns that have permeated the historical discourse around charlatanism. In it, I study the term "charlatan" as a multivalent actor's category without a stable referent. Instead of defining or identifying "the charlatan," I analyze how the concept of the charlatan was used to make epistemic interventions about what constituted credible knowledge in two interconnected controversies. Focusing on these controversies allows me to thematize how the concept of "the charlatan" expanded beyond medical contexts and to bring a history of knowledge perspective to the history of medicine. The title of the article, "Charlatan Epistemology," indicates a historical epistemological approach to charlatanism as well as the existence of a charlatan's embodied epistemology. On the one hand, I historicize the epistemic characteristics of charlatanism, focusing on virtues as well as vices, knowledge as well as ignorance, by addressing the historical and contextual specificities of two case studies and the larger epistemic concerns at play. On the other hand, I show how references to charlatanism implied the existence of specific embodied knowledges, special skills and techniques to manipulate either natural secrets or the human psyche, and I explore the similarities and differences between charlatan epistemology and artisanal epistemology.

Keywords: Charlatan; quack; embodied knowledge; artisan epistemology; historical epistemology; divining; miracle cure; action at a distance; multivalent actor's category; boundaries of nature; epistemic virtue; epistemic vice; agnotology

Introduction

Today, a charlatan is often characterized as a deceiver who makes fraudulent but elaborate claims to skill and knowledge (cf. OED, Merriam-Webster). This meaning goes back to the origins of the word, which derives from *cerretano*. Taken literally, *cerretano* referred to an inhabitant of the Umbrian town Cerreto di Spoleto, but was more often used to denote a rogue or someone devoted to dishonest earning (for which the town of Cerreto was notorious). Consequently, the first use of *ciarlatano* itself was in the sense of impostor or fraud (Gentilcore 2006a, 54). Despite the fact that historians have come to see charlatans predominantly as itinerant vendors of medicines, there has also been a continuity of meaning associating the charlatan with deceit and fraud, and this suggests an interesting historical relationship between the figure of the charlatan and epistemic categories such as truth, experience, skill and knowledge.

Understandably, the recent historiography of charlatanism has shied away from projecting present-day meanings onto the past. As a result, many historians have dismissed the epistemic aspects of charlatanism as ahistorical or psychologizing. Instead, social historians have primarily studied the social and economic aspects of charlatanism, focusing on a specific profession that

© The Author(s), 2022. Published by Cambridge University Press

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

provided medical services in the public squares or, more generally, looking at charlatans as medical entrepreneurs.

My approach is different in that I have chosen to highlight the epistemic concerns that have permeated the historical discourse around charlatanism. In this article, I explore the potential of a historical epistemology of charlatanism. I do not study the origins of our current concept of the charlatan, however, and my approach is not present-oriented. Instead, I have chosen an early modern episode that illustrates an important expansion of the meaning of the charlatan, which increasingly extended from a predominantly medical term into a broader epistemic category. This is a significant shift in itself that merits more study, but analyzing this particular episode will allow me to highlight more clearly the historicity of the epistemic aspects of charlatanism.

The episode revolves around a wonder cure practiced in the late seventeenth-century Dutch republic and other, related wondrous phenomena. A detailed analysis allows me to point out the contextual specificities of this episode, but also the larger epistemic concerns at play. A fine grained analysis of the charlatan as an actor's category helps to show differences in meaning as well as disagreements between historical actors about its use. My aim is not to pinpoint who was a charlatan, but rather to address what epistemic concerns were at stake when someone was labeled as a charlatan, and how this was informed by the epistemic fault lines of the period.

This episode gains added significance from the fact that some of the historical actors it features were prominent members of the republic of letters, whose writings had a long term impact. Furthermore, the episode has a self-reflective aspect, since those practicing the wonder cure thought and wrote about both the social and epistemic characteristics of bad or fraudulent medical practitioners. Not all of this can be explored in full in this article. Some of these themes will only be touched upon in passing while the article focuses on the broader point, which is to show the relevance of an epistemic approach to charlatanism, and the importance of exploring charlatan epistemology in greater depth.

Piss-work

In the spring of 1697, wonder-workers cured many citizens of Rotterdam by what was called "piss-work."[1] The cures were so surprising that notarial deeds were drawn up to attest to the astonishing recovery of the patients, who had been declared untreatable by their doctors. Some of these deeds appeared in print in the newspapers, so the world would know of and could benefit from this new treatment.[2] The most striking thing of all, however, was the nature of the cure. Instead of attending to the patients themselves, the healers used a secret powder to treat the patients' urine. By a sympathetic interaction, the patients would then start to sweat, their bowels would move or they would vomit. This was supposed to benefit the patient, and indeed, after a treatment of several weeks, patients reported feeling refreshed, and that their ailments were gone. According to the reports, the treatment was efficacious even if the patients were several miles away. This was particularly convenient for the well-to-do: they could simply send a servant with a batch of morning urine to the physician, and the cure would work itself.[3]

[1]This is a literal translation of the Dutch "pis werk," which will hitherto be referred to in this article as the "urine cure."

[2]The notarial deeds were made by Pieter Rabus, who was both a notary and journal editor. He published some of them in his journal (Rabus, 1697a) at the request of his client, Pieter vander Slaart, who was a patient of the "piss-worker" and also the publisher of Rabus' journal. More deeds would be published as evidence of the efficacy of the cure during the subsequent controversy. For more background on this controversy see Thijssen-Schoute (1960; 1967), de Vet (1980), and van den Elsen (2002; 2003).

[3]These practices were not related to those called "piss prophets" in Brian (1637), who ridiculed those who made a diagnosis by judging the urine of the patient as quacks. Of course, most physicians studied the urine of the patient as part of making a diagnosis.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

The most popular of these "piss-workers" was George Henrik von Rettwich.[4] Originally from the east of Franconia, he had recently arrived in the Netherlands and was still referred to by many as "the High German." Rettwich claimed to cure the gout, wounds and tumors, and his urine cure could even dissolve large kidney stones. A particularly detailed account of his work appears in the letters of the merchant Benjamin Furly, who wrote enthusiastically about the "Sympathetick Gentleman" to his friends Paul d'Aranda and John Locke. Furly wrote multiple times between February and April about the many people who had been cured, including his neighbors and his wife (Thijssen-Schoute 1960, 211-212). Pierre Bayle, the Huguenot author who lived in exile in Rotterdam, compared the healer's house to the Biblical "Pool of Bethesda," attracting all the infirm of the town (1697a; 1702, 2-3). Rettwich's success generated wealth, which he showed off by going out in great style, and he seemed to aim high, focusing his efforts on curing dignitaries for a hefty fee.

The new sympathetic cure had supporters as well as detractors, and became a cause célèbre in the Netherlands at the turn of the eighteenth century. Apart from many patients and notables like Furly or the publisher Pieter Van der Slaart, Rettwich was also defended by a number of local physicians. The physician Jan Schilperoort even wrote a treatise providing a theoretical defense of what he referred to in its subtitle as "the old and well known sympathetic force" (1697). In contrast, the official city physician, Herman Lufneu, was a staunch opponent of the new wonder worker. His opposition was fueled not only by professional rivalry, but also by personal rancor, since Van der Slaart, prior to being healed by Rettwich's urine cure, had originally been Lufneu's patient. The dispute soon degenerated into a barrage of abuse. In order to enhance the credibility of his new physician, Van der Slaart brought Rettwich to the neighboring town of Delft, to visit the famous scientist Antoni van Leeuwenhoek and do some tests (van Leeuwenhoek 1697; 1989a). They had hoped that van Leeuwenhoek would confirm the marvelous cures, but he instead pronounced himself skeptical, accusing Rettwich of being a puffer and a fraud.

Van Leeuwenhoek wrote in a letter to Ehrenfried Walther von Tschirnhaus that Rettwich had left Rotterdam in shame, but it is also possible that he remained and the controversy around him subsided when he conformed to the norms (1989b). Indeed, Rettwich acquired his medical doctorate a few months later at the University of Harderwijk, and dedicated his dissertation to the magistrates of the city. In this dedication, he describes how Rotterdam had "received and fed him with the sweetest nectar of an unsurpassable goodwill," but does not stay silent about the jealousy and malice he experienced when promoting the sympathetic cure. Sometimes the day is like a mother, sometimes like a stepmother, he quips, using the proverb to reflect on his mixed reception in the city (Rettwich 1697, "dedicatio"). Nevertheless, he stresses the continued benevolence and support of some of Rotterdam's notables and he concludes his dedication by praising the city and asking for a benevolent reception of his work. His short and simple doctoral disputation, which argues for traditional treatment like the use of laxatives and purgation, speaks to his desire to confirm, to legitimize and establish himself.

Although some of the criticisms of Rettwich are stock reactions against empirics and may have to be taken with a grain of salt – the skeptical van Leeuwenhoek (1989b) found his foolishness shameful, yet even the enthusiast Furly described him as "pretty shallow, rambling in his discourse, and as raw in his education as a "quabbling freshman" (Thijssen-Schoute 1960, 212) – a medical degree from the University of Harderwijk vouched for neither his expertise nor his

[4]This is the name found in the notarial deeds made by Rabus (1697a) on 28 February and 3 March 1697. The Latinized Henricus Georgius Reddewitz, Reddewits or Reddeswitz was also used. He was named as Georg Henrik Retbrevil by his competitor Giuseppe d'Almerigo (1699). Bayle (1696) described Rettwich as active in Friesland in September 1696. In March 1697, Bayle (1697a) described him as still active in Friesland, with three other urine cure workers active in Leiden, Antwerp and Rotterdam, although the one active in Rotterdam was probably also Rettwich (as attested in Rabus 1697a, 73, Rettwich was already treating Jacobus du Pré in Rotterdam in December 1696). Even though Bayle did not mention any name, we know that "the physician in Friesland" referred to Rettwich because Bayle described him as the servant who had stolen the secret from the Italian nobleman (d'Almerigo). In the Bayle correspondence project, this medical practitioner is misidentified as the autodidact physician Hendrik van Deventer who was famous for his popular "Labadie pills." These pills had a diuretic effect, flushing the body of urine, but the medication was applied to the patient, not to the urine as in the urine cure.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

intelligence. It was well known that at this university one could buy a degree for a handsome price, something that would have been within the means of the recently enriched Rettwich. His doctoral disputation on 22 September 1697 should above all be interpreted as a way to become a member of the Dutch medical establishment and ingratiate himself with the Rotterdam magistrates.

Rettwich was not the only practitioner working wonders by treating urine. In 1696 and early 1697, Pierre Bayle (1696, 1697a) had already written about other healers who used the urine cure in Antwerp and Leyden, and reported positively on the efficacy of the cures. He had also heard that Rettwich, supposedly the former servant of an Italian nobleman who had cured the Emperor in Vienna, had stolen the secret. Indeed, in 1699, a certain Baron Giuseppe d'Almerigo turned up in the Hague, publishing announcements in the local newspapers that he possessed the real secret of the sympathetic cure. He published a long pamphlet accusing Rettwich of trying to steal his secret, but claiming that he had run away with only part of it (d'Almerigo 1699). That Rettwich's cure had sometimes failed was therefore of no account to d'Almerigo, who proclaimed himself to be the real inventor of the sympathetic stone and argued that only he knew how to work the cure effectively. Van Leeuwenhoek had heard enough, however, and considered this new sympathetic doctor a fraud as well, noting in a letter to Tschirnhaus that: "We learn from experience that, the less experienced in arts and sciences, the greater the boasters – and this especially in the medical and healing arts" (1989b).

In these years, the *Haegse Mercurius*, a satirical journal, made fun of all the sympathetic interactions going on, proclaiming in April of 1699 that the place was again bristling with sympathetic doctors who showed a marked antipathy against each other (Doedijns 1699c).[5] The most curious of these, apart from the flamboyant Baron, was Henning Michael Herwig. Herwig was the court physician of the county of Waldeck and a city physician of Culemborg, a free city. A free city was independent from other authorities and had its own justice system. As such, Culemborg was a free port for debtors and radical thinkers, including spinosists, who had fled persecution at home. Herwig was already occupying these positions when, in 1692, he obtained his medical doctorate from the same dubious university that would accredit Rettwich five years later. The topic of Herwig's doctoral disputation was the ignorance of false physicians (Herwig 1692). Here he had occasion to reflect on the right method in medicine, the role of theory and experience and the errors that were often made. Many entered medicine because they want to be rich, he claimed, but these physicians are not always expert, receiving the title of doctor and the purple velvet more by luck than by medical art.

The literature on charlatans is imbued with epistemological considerations: What counts as legitimate medical knowledge? How do you judge what works if you cannot really ascertain whether or not the treatment has had a role in the recovery of the patient? But also: What are the social trappings of medical practice? Strikingly, a few years after his doctoral disputation on false physicians, Herwig had become the most important proponent of the sympathetic urine cure, writing a learned treatise in its defense and attesting to several cures effected by himself and by his acquaintances, Rettwich and Engelbert of Engelen (Herwig ca. 1698, 85-86; Herwig 1700). As some might say, the expert on charlatanism had become a charlatan himself.[6]

[5]The 7 March issue had already mentioned a "Doctor Sympatheticus" and the "universelle Sympathie" metaphorically and ironically (Doedijns 1699a), but Hendrik Doedijns (1699b; 1699c) addressed the urine cure explicitly in later issues of the journal. The notion of "sympathy" was used several times by Doedijns between 1697 and 1699 in a more metaphorical sense.

[6]Rettwich had female followers in Rotterdam and Amsterdam who continued to cure patients through the urine cure (Anon. 1701). An article in the *Mercure Galant* (Anon. 1705) showed that the Baron d'Almerigo was still active in 1705, this time in Paris. After attesting to numerous cures, the article explained how sympathetic powder worked by natural causes and principles, referring to contemporary literature on sympathetic powers such as Pierre Le Lorrain, better known as abbé de Vallemont (an author we will encounter again later in this article), but also mentioning Francis Bacon in its support. The article mentioned d'Almerigo's residence in Paris and comes across as an advertisement for the healer's services. D'Almerigo had already published an advertisement that he had cured the Prince of Auvergne as well as announcements of the contents of his pamphlets in the 10 March, 24 March and 2 May issues of the Dutch journal the *Oprechte Haerlemse Saturdaegse Courant* in 1699 (Anon, 1699).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

Charlatan historiography

Charlatans have caused a historiographical headache for the history of medicine. In the last century, they have attracted scholarship from different quarters, including social historians studying the professionalization of medicine as well as historians intending to warn us of the charlatan's perennial lures. We still intuit that the study of charlatanism can teach us something significant about the construction of medicine as a profession or as an epistemic pursuit, but the very category of "the charlatan" has been questioned again and again because of the intrinsic dangers of projection, anachronism and inappropriate judgment that seem to be embedded in the word itself. In this section, I will not give a general overview of the secondary literature on charlatanism.[7] Instead, I will refer specifically to seminal contributions by Roy Porter and, to a lesser extent, David Gentilcore. These authors are authorities in the historiography of charlatanism and have exerted significant influence on the historiography of medicine. More important for my purposes, however, is that they have taken interesting and explicit historiographical positions that can serve as the perfect foil through which to clarify my own approach.

Porter was already calling attention to the difficulties posed by categories such as "quack" and "charlatan" for historians in his pioneering work on "fringe medicine" in the mid-to-late 1980s. In it, he discarded earlier historiographical traditions that reject quackery on moral terms or treat it as a source of amusement and condescension. He also dismissed authors like Grete de Francesco (1937) – who wrote about propaganda and charlatans' techniques of persuasion during Nazi rule and who died in a concentration camp just before the end of the war – for making charlatans into objects from which to draw lessons for the present. Porter recognized that "charlatan" is a polemical category, and that historians should therefore certainly not take a moralizing approach or subscribe to the judgment that it implies. In order to avoid this danger, Porter decided to take a different approach to quacks, noting that: "as well as being a multipurpose idiom of abuse the label of quack was also, with some consistency, pinned upon a particular genre of medical operator" (1989, 2). Interestingly, he felt the need to avoid any moral or epistemic characteristic (e.g. referring to honesty, skill, efficaciousness, openness, epistemic credentials) in the definition of this medical operator, arguing that such characteristics do not perfectly set "quacks apart from proper practitioners" (Porter 1986).[8] His own definition of quacks is based on an economic perspective, characterizing them alternatively as "those operating at the hard commercial end of medicine" (Porter 1989, vii), as individual entrepreneurs who had to drum up custom through self-orchestrated publicity (ibid), or, as he wrote elsewhere, as "the pioneer stage of capitalist medicine" (Porter 1986).[9]

Like Porter's, David Gentilcore's work is predicated on avoiding a moralizing and judgmental approach to the exploration of charlatanism. He specifically defined a charlatan (following a description from 1632) as "those people who appear in the square and sell a few things with entertainments and buffoonery" because such a definition is not judgmental, making it "less a term of abuse and more a generic, bureaucratic label, identifying a category of healer" (Gentilcore 2006a, 2). Both authors sought to provide a sympathetic account of the charlatan, with Gentilcore specifically aiming to recover the charlatan's own perspective.[10] While Porter still claimed that "nobody ever called himself a quack," (Porter 1989, 1) Gentilcore brought to a logical conclusion Porter's aim of

[7]I will also not discuss the literature on boundary work between the medical "fringe" and "orthodoxy" (e.g. Porter and Bynum 1986), the literature on irregular practitioners (e.g. Pelling 2003) or on the medical marketplace in a broader sense (e.g. Ramsey 1988; Pomata 1998; etc.).

[8]This text has the advantage of containing a very clear list of characteristics typically attributed to charlatans, which Porter argues cannot be used to define or demarcate them. The general argument of the text is broadly equivalent to chapter 1 of Porter (1989).

[9]Porter recognized that his own definitions also do not perfectly demarcate the quack from other practitioners, pointing out in this case that this is "as it should be, for the resultant sense of blurred and contested boundaries is surely a useful index for how things really were" (1989, vii). It is thus unclear whether his socio-economic criteria better succeed in demarcating charlatans than the earlier rejected moral and epistemic criteria.

[10]Cf. Gentilcore (2006a, 3) and Porter (1989, vii), where he suggested that he will "champion the quacks."

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

neutralizing or depolemicising the concept of the charlatan by focusing especially on historical actors who *did* call themselves charlatans. While Porter tried to identify quacks by demarcation criteria, Gentilcore's charlatans are a clearly defined group because they self-identified and were registered as such.

Whereas both Porter and Gentilcore reached significant insights and results about charlatanism in this way, my own approach is different. I would like to widen the subject matter again, not focusing on a clearly circumscribed set of historical actors, but looking at how the notion of the charlatan was used in a wide variety of contexts, including beyond medicine. If we do this, no boundary work or demarcations can be expected to identify the "real" charlatans, but I would argue that it is fine to keep the referent of the concept unstable. This also means that we cannot really "follow the actors," as Gentilcore did, but we can "follow the concept," studying the various contexts in which it was used and the characteristics and practices to which it referred. I suggest beginning from the concept as it was actually used by the historical actors, instead of "taking the bite out of it" (as Gentilcore puts it) and defining a "disarmed" or "anesthetized" concept that avoids any moralizing or judgmental aspects.[11] This does not mean that we will fall into the trap of telling moralizing stories ourselves. Studying polemics is not the same as polemicizing and studying judgments does not entail being judgmental. In fact, I am especially interested in exploring the neglected moral and epistemic aspects of charlatans because these have often been weeded out of the historiography of charlatanism.

One could plausibly call my approach in this article a "historical epistemology" of charlatanism. This entails, in this case, starting from the concept of the charlatan, recognizing that the concept is historical and contextual, and highlighting its epistemic importance. Indeed, for the historical actors the concept played an important role in delineating legitimate knowledge, proper methodology and basic truth claims. Like objectivity, fact or probability, the notion of the charlatan has a normative role to play, albeit in this case a negative one. I am interested in analyzing the grounds of and practices related to this normativity in specific historical contexts, in this case, in late seventeenth-century Holland.

For some, historical epistemology also entails studying concepts that are not long forgotten but are still active today - so active, in fact, that they are often taken for granted or seen as universal (Nasim 2013). The earlier historiography shows that we still all too easily recognize our current predicament in the stories of past charlatans, but Porter and Gentilcore have also referred to "universal" aspects of charlatanism and we currently live in a time – not unlike Grete de Francesco eighty years ago – when leaders of the most powerful nations are referred to as "charlatans" by the mainstream media. This indicates that there is fertile ground for a historical epistemology of charlatanism to historicize those characteristics of charlatans that have been thought to be universal or inevitable or to assume new relevance today.

One more point needs to be made about actor's categories. It is important to avoid treating the charlatan as an a-historical category: it meant something quite different in sixteenth-century Italy than what it means today. Saying this is very much in line with current day historiographical sensibilities. Nevertheless, the focus on actors' categories in the literature has sometimes privileged certain meanings and definitions from the past over others, which has thwarted a thorough historicization.[12] This means that we have to keep an open mind and be careful not to reify

[11]According to Gentilcore, in his working definition "the term ciarlatano lost some of its bite, becoming less a term of abuse and more a generic, bureaucratic label, identifying a category of healer" (2006a, 2).

[12]In the last decades, the discipline of the history of science has been characterized by the historicization of the category of science itself, and it has become difficult – in many cases for good reason – to use the notion of "science" for periods before the nineteenth century (Cunningham and Williams 1993). Nevertheless, historians' accounts and usages of terms like "science," "natural philosophy" or "preternatural" are now often predicated on one preferred definition of these terms, usually based on the work of one or two authorities who defined these terms in the past, despite the richness of actual historical usages in a variety of contexts. Sometimes, these preferred definitions are then extended to contexts where they do not fit. I argue here that something similar has been the case for the concept of "charlatan."

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

one preferred "actor's category" of the charlatan (e.g. as a specific medical practitioner) to the detriment of other usages. Furthermore, as a polemical category, "charlatan" is performative: it labels rather than describes, and its primary aim is to create an effect, such as an emotion (anger, aversion) or an epistemic reaction (unbelief, skepticism, rejection). Even if we are familiar with an actor's category like "charlatan," we cannot know for sure how and to whom it will be applied in specific contexts, and we need to remain sensitive to the diversity of concrete uses.

Charlatans beyond medicine

Before exploring some concrete uses of the notion of the charlatan in the particular context of the urine cure, it is important to tell the second part of the story. The urine cure did not occur in a void; in parallel to the flurry around the wondrous cure, other curious events were shaking popular and learned opinion in Rotterdam. In the last decade of the 17th century, French sources had reported about a new phenomenon: an individual capable of finding water or hidden metals with a forked stick. It was even rumored that this wonder-worker could find criminals. More excitingly, it transpired that others had the same skill. When one diviner from the border area between the Dutch provinces and the German lands visited Rotterdam and did some trials, a local woman found out that she could also use the divining rod to find hidden gold and treasure.[13] That, at least, was the report of her husband Pieter Rabus, the publisher and the editor who had also published about the new urine cure.[14] In his journal and in other publications at the time, the two sympathetic wonders were intertwined and discussed together.[15] This intersection made sense to contemporaries, since both cases raised questions about action at a distance and elicited similar explanations and criticisms. When one looks more closely, it turns out that the same groups of people were involved in both controversies, even if the protagonists were not always on the same side of the debate.

Since comparisons and analogies were made between the "urine cure" and the "divining rod," it makes sense to look at these cases together. In particular, taking this broader perspective shows us that the concept of the charlatan extends beyond medicine. When we follow the concept and study how and when it is used by the historical actors, we find a diversity of meanings. What these meanings have in common is not a reference to selling medicines, but rather the recognition of a special skill, which may be interpreted either as a skillful manipulation of nature, or the skillful deception and manipulation of humans. In both interpretations of the charlatan, these skills had epistemic importance, and the concept of the charlatan was used to make an epistemic intervention in a debate.

Pierre Bayle's position is especially relevant as he explicitly framed his comparison between the divining rod and the urine cure in terms of charlatanism (1702, 2-3).[16] When he first began writing about these phenomena, he was convinced that they were genuine novelties. Many true believers of the urine cure talked extensively of the successes and marvelous feats of its practitioners. This talk, though motivated primarily by the cure's wondrous nature, was also bolstered by a general antipathy against ineffectual traditional physicians.[17] Bayle was also similarly

[13]For more on the Dutch divining case, see Vermeir (2011), Mandelbrote (2017) and the literature cited there.

[14]See the footnotes to the earlier section on "Piss-work."

[15]For instance, in the first afterword of the *Boekzaal* issue for May and June 1697, Rabus wrote that his opponents accused him of defending the urine cure *because* this would also bolster his support of the divining rod. Rabus denied this, arguing that he had tried to maintain a neutral stance with respect to the urine cure. The second afterword addressed other aspects of the divining rod controversy, which were unfolding at exactly the same time.

[16]In the 1710 English version of the *Dictionnaire,* "Cheats" and "Quaks" were used as translations of "charlatans," while in the nineteenth century edition, "empiricks" and "quacks" were used.

[17]In September 1696, Pierre Bayle and Jean-Baptiste Dubos exchanged letters about the urine cure, and Dubos warned Bayle about the prevailing incredulity towards physicians and charlatans. Nevertheless, on 7 March 1697, Pierre Bayle was still writing about the successes of the urine workers, and subscribing to the possible efficacy of a cure at a distance: "His house resembled the pool of Bethesda: all the sick run to it. It is certain that he has cured people and that he has made many sweat. . . . For me, I don't take it for impossible that, physically speaking, one can cause a man to perspire by putting something in his urine" (1697a).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

disposed to favor the divining rod when he first heard about it. He continued to extoll the utility of such a tool, which still seemed to work in the provinces, even after its successes in Paris had been debunked. It is only at the very end of the controversy, after confrontations with many of his colleagues and friends, that Bayle changed his views, and this epistemic shift was marked by the introduction of the notion of charlatan for both phenomena at once.

Comparing the divining rod case with the urine cure, Bayle found the powers of the rod so convincing that he believed the cheat must have been an elaborate plot: "I believe that if we could discover the Mystery of those sorts of pretended Prodigies, we should find that there is a Combination of People who go about it to get Money" (1710, 6). Bayle asserted that the urine cure was a simpler deception that did not require accomplices who were in it for the money (here, one should note that Bayle personally knew the wonderworkers and their supporters): "I don't believe that those who cried up most the Art of those Quacks were to partake of the Profit: Some pleased themselves to recommend the thing, because it look'd like a Prodigy; others might find something pleasant in it, because the unprofitableness of the common Medicines put them out of Humour with their Physicians" (1710, 6). He stated: "I believe there are some Cheats [*charlatans*] who have no need of Emissaries; the Credulity of the Publick is a sufficient Preparation for their acting the Imposture" (1710, 6).[18] Either way, in Bayle's eyes they were all charlatans, the urine workers as well as the diviners.[19]

Bayle's account had an enormous impact on the republic of letters, and this episode therefore constitutes an important moment in the generalization of charlatanism from medical wonders to other marvelous phenomena. To take one example: at the turn of the century, Jonathan Swift read Bayle's final account of the case in translation and took this image of the diviner as a metaphor for politicians in his satirical poem, "The Virtues of Sid Hamet the Magician's Rod," cementing the idea of a political charlatan (1710). In this poem, Swift jokingly referred to the "magical" powers of the divining rod, presenting an ironical treatment of political and other charlatanism.[20]

Bayle extended the notion of charlatan beyond medicine in other instances as well. For example, he called the early sixteenth-century French theologian Natalis Beda a charlatan, because of the intolerance and conservatism he displayed (Bayle 1697c, 520-521), and the compliment was returned a few years later when Bayle, in his turn, would be dubbed the "ultimate charlatan" for his worthless erudition (Le Clerc 1732, 451).[21] In the next decades, influential works on "erudite charlatanism" or "the charlatanry of the learned" were published.[22] As Johann Gabriel Büschel wrote in his revisiting of Mencken's famous *Charlataneria Eruditorum* (1716), justifying the

[18]The original French version reads : "je crois qu'il y a des charlatans qui n'ont pas besoin d'émissaires ; la crédulité du public leur prépare suffisamment les voies de l'imposture" (Bayle 1702, 2-3).

[19]For an analysis of Bayle's changing views, see Vermeir (2012).

[20]Swift's account is based directly or indirectly on Bayle's text, which was published in English in 1710. An intermediary for Swift's account could be Charles Povey, who recounted the story of the French diviner in the 28 August and 8 September 1710 issues of his journal (reprinted in Povey 1711, 13-15 and 33). Of course, the association of charlatanism and politics was not entirely new; see e.g. the short prose drama *The Disease of the House* (Anon. 1649) elaborating on medical metaphors (of charlatanism) for curing the body politic at the start of the English Interregnum, or Naudé (1679, 332-334) who wrote about credulity and political charlatanry ("charlataneries").

[21]"Let us boldly say that the state of mind of the Author of the Critical Dictionary is that of a Charlatan, & that perhaps of all the Charlatans who have ever appeared, he is the most noted. Adorned with a sumptuous erudition, a mass of facts & circumstances, which never deserve the attention of a sane man, he performs with a kind of brilliance, and draws the eyes of everyone to himself." (« Disons hardiment que le caractere d'esprit de l'Auteur du Dictionaire critique est celui d'un Charlatan, & que c'est peut-être de tous les Charlatans, qui ayent jamais paru, le plus signalé. Paré d'une fastueuse érudition, d'un ramas de faits & de circonstances, qui ne meriterent jamais l'attention d'un Homme sensé, il se produit avec une espece d'éclat, & attire sur lui les yeux de tout le monde. »)

[22]While this expression would seem oxymoronic, it became a trope in the eighteenth century. See e.g. Mencken (1715), which had a wide circulation and impact. See Füssel (2004, 2006) and Asmussen and Rößler (2013) for an analysis of learned charlatanism.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

use of the word charlatan for the intellectual elite: "elixirs or opinions, it's all the same!"[23] Bayle's impact on the notion of charlatanism seems lasting as, moving into the nineteenth century, we find that the diviner has become the quintessential example of a charlatan even in authoritative medical texts such as Panckoucke's medical dictionary (Cadet de Gassicourt 1813). Even in a medical context, the archetypal charlatan does not sell remedies anymore.

"Charlatan" as a multivalent actor's category

It will be clear by now that I am not interested in judging or pinpointing specific historical actors as charlatans. Whether or not Bayle was a charlatan is not the question. What interests me is why Bayle called others charlatans, why he was called a charlatan in turn, and what they wanted to achieve by doing this. The same holds for the urine workers and diviners in the episode that we study here. In particular, I am interested in finding out the historicity of the epistemic work that is being done by the concept of the charlatan. In this section, we will look at concrete uses of the word "charlatan" (or equivalent words).[24] It will be important to look at all sides of the controversy to get an idea of the richness and multivalence of this actor's category.

Let us start with how a supporter of the diviners used the notion of charlatan to bolster his argument. In one passage of his book *La Physique Occulte*, which aimed to give a natural explanation for the efficacy of the divining rod, Pierre Lorraine de Vallemont compared the diviners with a charlatan who is performing tricks on the marketplace (1696, 174-175).[25] He elaborated on his analogy by recounting a particular performance: the charlatan asked the spectators to put their rings together in the middle of the square and everyone was struck by wonder when the charlatan's dog brought each ring back to its rightful owner. The moral of this story was that the divining rod works in a similar way. It is not a trick. The charlatan's performance was not based on trickery but on a natural phenomenon grounded in skill, long training and the subtle perception of the dog. Vallemont argued that the diviner manipulated his divining rod in a similar way: he was able to find hidden things because of the subtle effluvia they exhale and which the rod is able to pick up because of the experience, practice and subtle perception of the diviner.[26]

Vallemont used the concept of the charlatan in a positive way, as a skillful actor who plays with natural wonders. Nevertheless, he also recognized pejorative meanings associated with the charlatan. There are some cheats, he wrote, like those charlatans who try to sell a good particular cure as a panacea: "I don't deny, however, that there are deceivers engaged in make-believe and who extend the use of the divining rod to too many things, like it happens with those charlatans who have a good particular remedy but who render themselves contemptible by wanting to pass it off as a universal cure" (Vallemont 1696, preface).[27] Many remedy peddlers and diviners, Vallemont argued, work legitimately and efficaciously; there are only a few who abuse their trade when they promise more than they can deliver. At worst, for Vallemont, there is some degree of overpromising involved in charlatanism, but this is not the same as imposture. The work of

[23]"Dort Elixire, hier Meinungen – am Ende läuft es auf eins hinaus" (Büschel 1791, 16).

[24]I will be looking at Dutch and French words used as synonyms for charlatan by the historical actors. It would be interesting to study a larger lexical field in many languages (and potential differences in connotation), but a linguistic analysis is beyond the scope of this paper. In line with the approach taken by historical epistemology, I do not focus on words but on concepts.

[25]Vallemont is a good place to start because his book was the first supporting the divining rod published in the Netherlands, was widely read, and became a main reference in the contemporary Dutch literature on the case.

[26]Thomas Corneille, dramatist, lexicographer and member of the *Académie française*, disagreed in his *Dictionnaire des Arts et des Sciences*, arguing that this charlatanry is all just make-believe: "Charlatans make the simpleminded believe that they can make them find mines and treasures with a hazel rod." ("Les Charlatans font accroire aux simples qu'ils leur feront trouver des mines & des tresors avec une verge de coudrier . . . .") (1694, 555).

[27]"Je ne nie pourtant pas qu'il n'y ait des fourbes qui en donnent à croire, & qui poussent l'usage de la Baguette à trop de choses, comme il arrive aux Charlatans qui aient effectivement un bon remede particulier, le rendent eux-mêmes méprisable, en voulant le faire passer pour universel."

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

charlatans is based on a natural secret that they do not know the cause of, and it is therefore no surprise that they cannot always correctly judge the extent of its efficacy. This is an elucidating example of how the concept of the charlatan can be used in a positive way, referring to people who have a special skill to identify and use certain secrets of nature. The work done by such a charlatan is efficacious even though it is based only on tacit knowledge, not on causal or theoretical knowledge of the natural phenomenon they are able to control. Charlatans may go wrong epistemically, and maybe morally as well, if they exaggerate the scope of their skills' application.

The possibility of such positive interpretations of charlatanism would continue. An authority like Cadet de Gassicourt, for instance, could write in Panckoucke's medical dictionary that a physician can and should use "innocent charlatanism" to relieve the pain of the patient and seduce his imagination (1813, 552-553). Although he criticized charlatans for their exaggerated self-confidence and pedantry, he recognized both the efficacy and the benevolence of the charlatan's techniques, even though he does not exactly know their causal mechanisms. Charlatanism refers here to a skillset for manipulating the beliefs as well as the (psycho)somatic states of others. Deception was often thought to be at the core of this skillset and throughout the history of medicine a debate has raged on the legitimacy and permissibility of such "deception." Cadet de Gassicourt was clear on this matter, writing that such "beneficent impostures" and "seductions of the imagination" are a moral charlatanism that does not turn a physician into a charlatan (1813, 552). The concept of charlatan or charlatanism thus neither entails a moral nor an epistemic negative judgement, either in medicine or in other domains.

If we look again at the Dutch context, the lexical situation is more complicated because the word "charlatan" was normally not used in Dutch at the time. Many of our historical actors were French speaking refugees, however, and the French literature on divination, published with Dutch publishers, was also widely read in Holland. Furthermore, some of the relevant treatises, like the book on the urine cure by Herman Lufneu, were translated between Dutch and French and comparing them gives interesting results.

This comparison is a good starting point to get a better grip on the terminology used for charlatanism and the epistemic context in which it was used. The origin of Lufneu's seminal book lay, according to his own account, in a conversation about the sympathetic cure with Bayle, who exhorted him to put his arguments on paper. Lufneu wrote a first short account as a letter to Bayle, and this letter was almost entirely translated by Rabus and published as an essay in the *Boekzaal* (Lufneu 1697b). Lufneu saw his book as a philosophical contribution explaining the impossibility of the urine cure. In it, he uses the relatively neutral words "sympathetic healer" (*Sympathetische Genezer*) and "worker" (*Werker*) to denote Rettwich, corresponding to "Opérateur" (and a few times "empirique") in the original French text. The book set off a controversy, with replies from a local physician and several of Rettwich's patients attesting to the success of the cure and accusing Lufneu of misrepresenting their experiences. Lufneu responded in a full-fledged volume in French (Lufneu 1697a), translated again into Dutch by Rabus (Lufneu 1697c). It is in these polemical volumes that we find a different terminology.[28]

In the address to the reader of the French edition, Lufneu used *charlatannerie sympathique* to refer to this new practice, which he qualified as a deceit (*fourbe*). Later in the book, in a new section (especially added in between two existing passages in his letter to Bayle), he compared this "nouvelle charlatannerie sympathique" to judicial astrology (1697a, p.31-33).[29] He explained that this new art is as erroneous as the former and should be dismissed with the same arguments,

[28]In almost all of these pamphlets and books, there is a very striking self-reflexive focus on the kind of words the authors use. Furthermore, Lufneu reflected in both the French and Dutch edition on the curiosity that he is a Dutch speaker with less than perfect French who still desired to write the book in a foreign language.

[29]For quackzalvery as a way to cheat ("bedriegen") the world, see also Lufneu (1697d, 2). Note that Lufneu was accused of having a "perverted Dutch style" because he often used Gallicisms in his Dutch writings (Cremer 1697, 13). Bayle noted about Lufneu that "for a Dutchman who has never left his country, his French isn't too bad" (1697b). In the next paragraph, Bayle discussed the divining rod case, showing that both were closely associated in his mind.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

namely that they get the principles of natural philosophy all wrong, that any of their successes are pure chance, and that these authors are deluded in their belief in subtle influences. In the preface to the Dutch edition (Lufneu 1697c),[30] he also employed more forceful terminology, using terms like quackery (*Quackzalvery*). Lufneu noted that this is a "big word," which may mean that the word was not yet very common in Dutch, and equated it with the "art of imposture" (*bedrog-konst*). He also used the term "newfangled operators" (*nieuwerwetse werkers*) to accuse the urine cure workers, although he compared them to the ancient astrologers instead of stressing the newness of their cure. In an interesting passage, which we only find in the Dutch edition (Lufneu 1697c, 42), he wrote that Rettwich publicized attestations of his cure "in the way quacksalvers do" (*quackzalvers-wijze*), comparing him to Marco d'Aviano, a capuchin monk famous as a miracle worker and dismissed as a "charlatan" in protestant lands.[31]

Other historical actors joined Lufneu in accusing the sympathetic physicians. A newspaper referred to them as "empirics" (*Empirische Genees-Heeren*) who are clearly characterized as impostors (Doedijns 1699b). The pamphlets that followed, pitting Rettwich's patients against his rival physicians, would be an interesting source for studying the history of colorful Dutch terms of abuse (Lufneu 1697d, 1697e; vander Slaart 1697; Cremer 1697).[32] In these texts, the terms "charlatan" and "quack" are used to brand the urine cure workers as frauds and impostors. In a letter to Tschirnhaus, van Leeuwenhoek was equally liberal in his language, calling Rettwich a liar, a fraud and a puffer (*Pofhans*) (1989b, 370). He dismissed the urine cure workers as charlatans because they could not explain how their cure works, and when confronted with this, they only repeated that "there are many things done, of which we can give no reason" (van Leeuwenhoek 1697, 519; 1989 a, 156). In particular, he accused Rettwich of being a liar because the sympathetic physician had claimed to heal kidney and bladder stones, which van Leeuwenhoek thought to be empirically impossible. He had himself put a kidney stone in strong vinegar for a year and it did not dissolve, so anyone who told him that he could dissolve such stones had to be an impostor. Va n Leeuwenhoek reflected that even the most experienced physicians had to admit their lack of knowledge and skill in healing, and added that the less one knows, the more one boasts, suggesting that charlatans can be distinguished from experienced physicians by their boasting (van Leeuwenhoek 1989b).

As we have seen, the episodes of the urine cure and the divining rod were brought together by Bayle as cases of charlatanism. His assessment of these episodes is especially interesting because he changed his mind only after several appeals by his friends. For instance, in 1696, Bayle wrote to his friend Jean-Baptiste Dubos about a urine cure worker who cured people of the gout.[33] When

[30]Note that the prefaces of the French and Dutch editions were different, and although Rabus translated the body of the text, Lufneu probably wrote the preface to the Dutch volume directly in Dutch. The fact that in this case the interesting terminology occurred in two different prefaces means that we cannot see a Dutch term as a direct equivalent of a French term. Furthermore, while the new passage on astrology is present in both editions, curiously, the "nouvelle charlatannerie sympathique" in the French edition (1697a, 32-33) is not translated into Dutch (Lufneu 1697c, 25). Similarly, when Lufneu talked about quackery in the Dutch version, the equivalent sentence is curiously missing in the French edition.

[31]D'Aviano was known for publicizing his wondrous healings. Around the time of the urine cure controversy, d'Aviano was explicitly branded as a charlatan in the Dutch journal the *Haegse Mercurius*, 3 June 1699 (Doedijns, 1699d). Terms used as synonyms in this account were "Quaksalver," "Goochelaar," "Charlatan" and "Harlequyn," and explicit reference is made to religious charlatanism. On the reception of Marco d'Aviano in the German protestant lands, see Beyer (2003).

[32]Instead of attacking the sympathetic physicians, however, the two factions employ the pamphlets mainly to accuse *each other* of lying and wickedness.

[33]"This man there professes to cure everything by injecting his drugs into the patient's fresh urine. He makes you sweat, vomit, he purges you as the case requires by mixing something in the urine. There is a man who claims that he already feels relieved from the gout, and that the nodules on his fingers have already disappeared after being treated by this doctor, who only operated on the urine of this gouty person." (« Cet homme là fait profession de guerir tout par l'injection de ses drogues dans l'urine fraîche du malade. Il fait suer, vomir, il purge selon l'exigence du cas en melant quelque chose dans l'urine. Il y a un homme qui proteste qu'il se sent deja soulagé des gout[t]es, et que les nœuds de ses doigts sont deja tombez pour s'etre servi de ce medecin qui n'a operé que sur l'urine du gout[t]eux. ») (Bayle 1696).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

Dubos dismissed the urine cure as charlatanism, a delusion similar to the divining rod, Bayle objected.[34] In March 1697, he wrote that it is certain that the sympathetic physician had cured people and he did not think that the urine cure was physically impossible (contradicting Lufneu's core argument). In fact, he dismissed and ridiculed the regular physicians who were in a frenzy against this new healer. Too many of them, including the local physicians, were in the habit of rejecting as impossible anything they did not understand. He continued that these physicians could not deny the facts and thus had to resort to claiming that the healing was the effect of a forewarned and prepared imagination, an argument that Bayle seems to have dismissed as unconvincing.[35]

This is an adequate summary of the arguments made in Lufneu's original letter to Bayle (which had just been published in Dutch in the *Boekzaal*) and which Bayle did not seem to have taken very seriously. In August, after reading Lufneu's book-length study, Bayle (1697b) was more circumspect about the efficacy of both the urine cure and the divining rod, but he did not reject these phenomena. He only became a skeptic about the divining rod after receiving a letter addressed to him by Paul Buissière (1698), who wanted Bayle to take a clearer stance against the rod. His opinion about the urine cure shifted as well. In the errata to the second edition of his *Dictionnaire*, Bayle (1702, 2-3) dismissed “la vanité & le ridicule” of the urine cure, turning it into a classic case of medial charlatanism in which people were apparently cured without any remedy. He wrote that he was convinced that it was all a complot, especially after hearing the accusations that French diviners had sold their services to find thieves, to adjudicate competing claims about the authenticity of local saints, and even to find out the virginity of potential fiancées. He detected a very profitable scam, especially because both the suspicious and the suspect would bid up the price they were willing to pay for a result in their favor. Bayle was convinced that the well attested accomplishments of an “extraordinary talent” were in fact the result of a conspiracy that could only succeed with a host of accomplices.[36] For Bayle, credulity, deception and even conspiracy are key elements of charlatanism.

The charlatan's embodied epistemology

At the core of Lufneu's case against the urine cure was an argument against its possibility. His opponents rebuffed him by saying that their experience of the cure was incontestable. They felt and saw the efficacy: that was not an imagination. “But,” asked Lufneu, “how does one attribute an effect to the correct cause?” (1697a, 28-29; 1697c, 21-22). Take the example of astrology: how do we know if a certain effect is due to the influence of the stars or to sublunary causes? In the case of the urine cure, it was alleged that the patients started to sweat, but was this caused by putting the

[34]Dubos wrote: “For the credulity towards physicians and charlatans, it is as great here [in Paris] as it had been in ancient Rome for the astrologers.” Probably referring to the divining rod case, on which he also corresponded with Bayle, he continued: “It seems that one has only to be disabused from some other errors in order to give oneself with even more credulity to this new error” (« Pour la credulite aux medecins et aux charlatans, elle i est aussi grande qu'elle l'estoit autrefois à Rome pour les astrologues. Il semble que l'on ne s'i soit desabusé de quelques autres erreurs que pour donner d'avantage dans celle là. ») (Dubos 1696).

[35]“It is certain that he has healed people and that he has made many people sweat. The physicians cry out against him, with the latest fury; and, as there are more people in this country than anywhere else who have the habit of denying as impossible everything they do not understand, there are many people who take the same perspective as the physicians. But, not being able to deny the facts, knowing that the sick have sweated, they say it is the effect of a warned imagination. For me, I do not hold it impossible, that physically speaking, we could make a man sweat by putting something in his urine.” « Il est certain, qu'il a guéri des personnes, et qu'il a fait suër quantité de gens. Les médecins crient contre lui, avec la derniere fureur ; et, comme il y a en ce païs plus de gens que partout ailleurs, qui ont l'habitude de nier comme impossible tout ce qu'ils ne comprennent pas, il se trouve bien des personnes, qui tiennent le même langage que les médecins. Mais, ne pouvant nier les faits, sçavoir que des malades n'aient sué, ils disent que c'est l'effet d'une imagination prévenue. Pour moi, je ne tiens pas impossible, que physiquement parlant, on ne fasse suër un homme en mettant quelque chose dans son urine. » (Bayle 1697a).

[36]For a similar explanation of the urine cure, see Doedijns (1699b). Bayle also dismissed many teachers of universal methods of learning as charlatans because they attracted students by magnificent promises advertised everywhere even though their methods were without foundation (1675).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

sympathetic powder in the urine of the patient, or did this sweating occur though other natural means? "How sure should one be of the truth of an experience, and how can one detect imposture, that often inserts itself exactly at that point?" (Lufneu 1697c, 22). The possibility or impossibility of a phenomenon was an epistemic consideration, and as such, charlatans had a specific place in the epistemic framework of their age.

The space between the possible and the impossible was occupied by wonders and epistemic reflections on the boundaries of nature. Contemporaries routinely classified such wondrous phenomena according to their different causes. In the case of the urine cure and the divining rod (and more generally) four broad categories of causes were distinguished: God, demons, human agency and nature (Vermeir 2005). These four categories were explicitly mentioned, analyzed and fought over by the historical actors. For the case of the urine cure, this is very clear in an early review of the controversy written by Basnage de Beauval. He began his analysis by setting out the four possible causes as his interpretative framework: "If we suppose that it is a fact [and not an artifice created by an impostor], it seems that it is a miracle or a demonic intervention, because similar effects do not occur in the order of natural causes" (de Beauval 1697, 408-409)[37] We find the same for the divining rod. While some historical actors claimed that diviners possessed a God-given talent, others dismissed them as devil's accomplices (Le Brun 1732). Natural explanations also abounded for such marvels. Although astrological explanations had been common before, they began to lose their appeal towards the turn of the century. The most prominent explanation for the efficacy of both the urine cure and the divining rod referred to subtle effluvia that could be detected, like a hound would smell a trace (Vallemont 1696, Schilperoort 1697).

The fourth explanatory model referred to artificial phenomena. These wonders are primarily created by humans, based on human ingenuity, skill and training. They include stunning artisanal creations, but also the wondrous feats of natural magicians and jugglers. As Lufneu pointed out, it often happens that physicians or natural philosophers mistakenly attribute the wrong cause to an effect, but if such man-made effects were misrepresented as caused by one of the other three causes (nature, God or demons), then this could also be a sign of imposture and fraud (1697a, 35).[38] In this case, it was not only a human made effect, but also an illusion, because the charlatans claimed the existence of a cause that was not really there. That became the line of argument voiced against the divining rod and the urine cure by their opponents.

The doubts of their contemporaries, the vehement controversies, and Bayle's long wavering before he could make up his mind, all make it clear that these alleged impostures were not an easy little trick. Lufneu (1697c, "voorberigt"[preface]) referred to an "art of imposture" (*bedrog-konst/art trompeur*) when he discussed the urine cure, but this "art" (*konst*, *konstenarij*) was only a weak reflection of the much more elaborate and successful art of deception practiced by the Egyptian priest who, for instance, tried to control the credulous people by artful hidden machines (Lufneu, 1697c, 93-95).[39] Similarly, for Lufneu, ancient astrology was also an "art of

[37]"Assuming the fact, it seems to be a miracle or an enchantment, because such effects do not appear in the order of natural causes." (« En supposant le fait, il semble que c'est miracle ou enchantement, parce que de pareils effets ne paroissent point dans l'ordre des causes naturelles. »)

[38]Cf. Lufneu (1697c, 22): "What is not a cause is taken as a cause." Serious and dangerous error can also occur when phenomena are misattributed to religious causes. Henning Michael Herwig wrote about the power of persuasion, by faith or by credibility, which is not a magical power although it can have effects on mind and body: "Here is no superstition unless superstitious persons create it, by attributing the effect to other causes" (1700, 65). Similarly, Vallemont gave another interesting account of the charlatan: "Car je ne doute point que des fourbes, & des charlatans, à qui la Baguette tournoit, n'ayent envelopé quelquefois ce don de la nature sous des cérémonies extravagantes, afin de cacher, & de mieux faire valoir leur secret" (Vallemont, Physique Occulte, 1696, 16).

[39]Lufneu referenced the Jesuit Athanasius Kircher's *Oedipus Aegyptiacus*, but local libertines had also been arguing that the ancient oracles were in fact deft deceptions by priestesses, who pretended their oracular pronouncements originated in divine inspiration to control the people. The Mennonite preacher Anthonie van Dale (1683, 1687), who most famously advanced this argument, was closely involved in both the "urine cure" and the divining rod controversies. Imposture was thus a category that was on everyone's minds.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

imposture" with elaborate arguments and tricks to persuade the public (1697a, 30). We find a similar perspective on the divining rod, where historical actors were trying to figure out the specific skills and techniques, the highly practiced sleight of hand that could manipulate the divining rod in such a way so that it seemed to turn naturally at hidden objects. Bayle referred to the sceptics in Holland ("nos incredules") who claimed that divining is caused by a special mechanical technique whereby the fingers put pressure in a specific way (1697b). Letters and treatises were published to show exactly how this was done.[40] It is in this epistemic space of "the artificial" – associated with artisanal wonders but also with imposture and illusion – that the late seventeenth-century charlatan found his place.

The fact that charlatans and artisans shared the same epistemic space of "artificial" phenomena hints at an interesting parallel and suggests that we may identify a charlatan's epistemology in analogy with "artisanal epistemology." Artisanal epistemology refers to experientially derived knowledge, emphasizing the bodily labor of the artisan as the source of knowledge (Smith 2018). From the above, it transpires that some of our historical actors considered the charlatan as a kind of artisan. On the one hand, as we have seen, a charlatan could be an artisan of imposture, an expert in creating artificial phenomena and make-believe. This expertise was based on a very bodily kind of knowledge. In the case of the divining rod, for instance, the charlatan was supposed to be a very skilled practitioner of "sleight of hand," a technique of dexterity that could only be mastered after sustained practice. Medical charlatans were often expected to be skilled in sleight of hand, as well as in popular forms of rhetoric and showmanship. But the charlatan's embodied epistemology need not be limited to the art of imposture. Professional jugglers, magicians and saltimbanques also used techniques of deception to entertain, not to defraud. They often had to master elaborate repertoires of bodily knowledges. Moreover, the honest charlatans were seen as skilled practitioners who had experiential and bodily knowledge of some secrets of nature, even though they could not make this knowledge explicit or theorize it. Vallemont's charlatan, who had trained a dog to perform special tricks, had - through long practice - figured out and learned to manipulate the dog's subtle sense of smell. The empiric's medical knowledge of the urine cure was also suggested to be a quintessentially "bodily knowledge" based on direct experience.

Despite their similarities, however, artisanal epistemology and charlatan epistemology also differ in several important ways. Usually, artisans can be clearly identified as individuals or as a group; they are often even part of relatively rigid guilds or corporations. In contrast, I have embraced the concept of the charlatan as a polemical category, which prevents us from pinpointing an individual as a "charlatan," let alone identifying an entire corporation of charlatans. Whether Rettwich "was" a charlatan is not relevant to my purposes, and his contemporaries interpreted his actions in different ways. Historical actors were called "charlatans," however, because they were perceived to engage in certain practices, and "charlatan epistemology" refers to the whole set of tacit, bodily and explicit knowledges needed to engage in these practices. Charlatan epistemology is also different from artisanal epistemology in that it adds an extra epistemic layer that is not usually at the center of artisanal practices: epistemic practices of creating belief and persuasion, the play of reason, emotion and imagination, with its effects on mind as well as body. In his work on the divining rod, André Renaud, for instance, put the works of the charlatan together with the stage magician in the category of artificial effects, based on "the subtlety of the human spirit, like the suppleness, the dexterity, the agility of the hand" (1693, 153-154).[41] The

[40]See Anon. (1697) and vander Vinne (1697) for detailed accounts of the mechanical techniques to manipulate the divining rod. Bussière (1698) also mentioned this explanation in the French context.

[41]"Parce que nous voïons tous les jours que les jongleurs & les Charlatans par le jeu du Gobelet, des Cartes, de la Baguette même font mille tours innocens & suprenans qui charment les yeux, enchantent l'esprit, ce que la Populace grossiere prend quelquefois pour des illusions & des prestiges du Démon, quoi qu'on soit d'ailleurs assuré que tous ces Phenoménes sont de purs effets de la subtilité de l'esprit humain, comme de la souplesse, de l'adresse, de l'agilité de la main."

In his treatise on the divining rod, Vilbussière also argued that, before attributing the power of the divining rod to the devil, one should take careful precautions and test to be sure it is not an artifice, i.e. a trick by a charlatan, because they often do even

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

subtlety of the spirit is analogous to the suppleness of the hand, and both are at the core of charlatan epistemology.

A historical epistemology of charlatanism

The concept of the charlatan, as used by the historical actors, did not neatly pinpoint a specific individual or group. Rather, it was a polemical term that could refer to a broad set of practices and behaviors. Imposture, even collusion, was often considered central to charlatanism, but the concept could also refer to special skills and knowledge based on experience. While this epistemic understanding of the charlatan is able to connect the earliest uses of the concept with a long history of charlatanism leading up to the present day, such an epistemic approach has often been dismissed as either inappropriate or uninteresting. Porter, for instance, referred to such explanations of charlatanism as a "psychopathology of quackery [that] seems hopelessly glib, reductionist, and question-begging," and argued that both contemporaries and historians would do better not to entertain it (1989, 11). A historiography of value judgments does not need to be judgmental itself, however. In this section, I propose a historiography of epistemic virtues as well as vices, a historical epistemology that is interested in epistemic practices and values that either enhance knowledge or promote ignorance.[42]

When Bayle, at the end of a long process, made up his mind and accused the sympathetic healers and diviners of charlatanism, he alleged that they must have operated with accomplices to create such a successful deception. Most charlatans did not need accomplices, he continued, because the credulity of the ordinary people predisposed them to believe the most incredible feats (1702, 2-3). The history of charlatanism seems littered with such a "knaves and fools" rhetoric, but the seeming universality of such claims often hides interesting historical specificity.[43] Who believes a new phenomenon and who turns out to be a sceptic depends on a complex set of contextual epistemic, religious and political conditions. In the Dutch debate on divination, the most ardent critics of the divining rod were part of a religious sect that was also suspicious of many religious claims (Vermeir 2011), for instance, and Bayle himself espoused his own personal variant of a skeptical epistemology (cf. Lennon 2002).[44]

The "knaves and fools" rhetoric, which expresses that the elite is able to see through the sham, is also not as stable as one may think, and has seen many interesting reversals. An interesting case is the early eighteenth-century controversy around "erudite charlatanism," in which the elite was accused of credulity and intellectual imposture. Another example is the current rhetoric used by pundits to argue that a biased elite is scheming against the interests of the common people,

more marvelous things with the help of quicksilver or a hidden magnet (1712, 48-49). ("Rabdomentie averée, où l'on reconnoît sans nüages l'esprit malin, toutefois après avoir bien pris des précautions contre les artifices, puisque tous les jours nos Saltimbanques, ou autres Charlatans, font des choses encore plus surprenantes par le moyen de l'argent vif, ou de l'ayman caché & ajusté à leur dessein".) Both authors characterized the charlatan rather positively, not as an impostor but more as a synonym for a juggler. See also Iliffe (1999) for arguing the importance of studying the history of jugglery to understanding seventeenth-century natural philosophy.

[42]For epistemic virtues in historical epistemology, see e.g. Daston and Galison (2007). On the production of ignorance, see Proctor and Schiebinger (2008). Charlatan epistemology and charlatan agnotology are closely connected, since the creation of more ignorance is also based on specific knowledges and skills.

[43]Porter rightly pointed out that "contemporaries thus explained the fortunes of quackery largely in terms of human nature, the eternal dialectic of knaves and fools," but he seemed to think that such a "psycho-sociology of deception" refers to a universal characteristic of human nature that defies historicization (1989, 14). Our changing understanding of "human nature" is itself a good subject for historical exploration, however. Indeed, the period of our case study has seen the rise of a "science of human nature," a science which has continued to grow and expand until this day, and which includes the study of biases, illusion and manipulation.

[44]The discourse of credulity also raises key epistemic questions about what constitutes adequate evidence upon which to accept a knowledge claim, something that was vigorously debated in both the divining rod and urine cure controversies (e.g. Lufneu 1697a, 28-29; 1697c, 21-22), and answers to this question have, in general, a very rich epistemic history.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

claiming that experts are not to be trusted anymore and arguing that one would do better to follow one's intuition or gut-feeling (Heath, 2014). These shifts clearly illustrate the historicity and contextuality of such epistemic judgements.

In this section, I will give three examples of epistemic concepts, values and arguments that seem to be part of a universal rhetoric of charlatanism, but which, it turns out, need to be carefully historicized. First I will sketch the seventeenth-century context of the concept of imposture itself, after which I will look at the historicity of epistemic humility, intelligibility and possibility, as well as the distinction between reality and imagination. There are of course plenty of other epistemic aspects that could be studied, such as the role of empirical evidence in the legitimation of knowledge. By looking at how such epistemic aspects of charlatanism are highlighted in the case of the urine cure and the divining rod, we can show the rich texture and historicity of an epistemic approach to charlatanism.

In the decades before the twin controversies of the urine cure and the divining rod, accusations of imposture carried special meaning and became central to enlightenment debates on religion. The category of imposture had long been a favorite explanatory tool to explain away wonders and miracles, for instance, and freethinkers like Giulio Cesare Vanini had famously employed it in the early seventeenth century to naturalize wonders. The later "libertine" tradition went so far as to explain all the foundations of religion – miracles, prophets and rituals – as imposture (Ossa-Richardson, 2013). Famously, the book of the three impostors (*De Tribus Impostoribus*) was supposed to argue that Moses, Christ and Muhammad were frauds, founding the great religions only for individual and political gain. Despite the ruckus it raised throughout the seventeenth century, the book did not actually exist, until at the end of the seventeenth century hoaxers finally produced two versions of such a book. Strikingly, the manuscript of one of them (the *Traité des trois imposteurs*) was found in the library of Benjamin Furly, one of the key characters in the urine cure and divining rod controversies.[45]

Another of our protagonists, Anthonie Van Dale, would become famous with his claim that ancient oracles were impostors. An esteemed figure in the Dutch republic, he was called upon several times as an official witness in experiments with the divining rod and was involved in the debate around the urine cure (Vander Vinne, 1697; Rabus, 1697c and 1697d). The idea of the charlatan as an impostor carried a lot of meaning in the Dutch context, which was determined by religious tensions and warfare, especially since the impostor argument was used and perceived very differently by Catholics and Protestants. While Catholic interpreters generally shied away from the impostor argument and preferred to explain the miracles of the gentiles as demonic phenomena, Protestants used this explanatory model of the impostor more liberally, because they wanted to reject not only pagan wonders but also catholic miracles as artifices. Lufneu picked up Van Dale's impostor argument when he compared the urine cure workers with Egyptian priests, who had perfected the art of deception and faked miracles (Lufneu 1697c, 93), and he compared Rettwich to a catholic miracle worker, adding religious opprobrium to the charge of pretense.

Another crucial aspect of the debate around the urine cure was the importance of theoretical explanations versus the epistemic humility of the empiric. The operators often argued that the facts were clear and well attested, even if they could not always explain them. Such an attitude has often been interpreted in terms of the empiric's lack of formal education - as opposed to that of the official physician. If we look at this argument in the context of our case studies, we see other, more epistemic considerations coming to the fore. At the turn of the seventeenth century, intelligibility was a very important epistemic virtue in France and the Netherlands (Dear 2006, 15-38). This means that it became very difficult to say that one had no idea how a certain effect was

[45]Charles Levier got the manuscript of this early eighteenth century treatise from the library of Benjamin Furly in 1711. The authorship is still contested. For a recent analysis of the evidence see Berti (2016); for a wider set of studies, see also the older Berti, Charles-Daubert and Popkin (1996).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

produced. We see this in the disparaging reaction of van Leeuwenhoek (himself not formally educated, but renowned because of his microscopic practice) against Rettwich, when the latter had to repeat several times that "there are more things in Nature that we cannot give the causes [*redenen*] for" (van Leeuwenhoek 1989a, 154).[46] In his examination of the urine cure, Lufneu went much further in giving weight to intelligibility (1697a, 1697c). If something could not be explained, he argued, this meant that it was not possible. This was the cornerstone of the argument in his book, *Natural Philosophical Treatise on the Impossibility of the So-called Sympathetic Operation*, in which he argued for the impossibility of the cure based on its unintelligibility.[47]

Epistemic humility was also considered altogether wrong for religious reasons. Lufneu spelled out in detail why it was theologically dangerous to use the argument that "[an inexplicable phenomenon] may happen in another way, as yet still unknown to us" (Lufneu 1697c, 20, 101-104; 1697b, 134-135). Protestant theologians had argued that the Catholic concept of transubstantiation was based on principles that were contradictory *and* against the laws of nature. As a consequence, these theologians reasoned that transubstantiation was a false and impossible doctrine. The same style of reasoning holds for the urine cure. If we accept that the urine cure, although inexplicable, may be possible, because we do not yet know all the laws of nature, then, according to Lufneu, the Catholics could easily argue that there may be principles and natural laws that we do not yet understand, and therefore, transubstantiation would be possible. In the complex religious context of the late seventeenth-century Netherlands, we see that the virtue of epistemic humility is reversed into a vice, contradicting the typical rhetoric of charlatanism in which the charlatan is represented as an imaginative boaster in sharp contrast with the humble regular physician.

Finally, as a third example, I would like to touch briefly on the power of imagination. It is considered a common trope that charlatans could heal but only by enlisting the patient's imagination.[48] But what exactly does this mean? Is this not an example of projecting current day assumptions and expressions on the past? It is true that marvelous cures have long been related to the imagination, but this does not always mean the same thing. The early modern imagination was perceived to be a totally different faculty than how we conceptualize it today, and taking such stock pronouncements at face value would misleading. Depending on the context, it may mean that the healing is not real, for instance, but only imaginary; or that the disease was not real, as many patients were hypochondriacs who were sick solely by fancy; or that the imagination could control very strong psychosomatic powers that could effect real cures. Historicizing the powers of the imagination, and understanding it in its specific context, is essential to understanding the history of charlatanism. Let us look at the urine cure controversy and consider what kind of power the historical actors attributed to the imagination.

The imagination was at the core of the controversy between the Rotterdam physicians, with Schilperoort using it to argue in favor of the urine cure and Lufneu to argue against it. Lufneu wrote that "it would not be an effort to present a long list of strange and curious healings caused by the power of imagination and passion" (1697c, 32-33). He explained in detail a technique that, according to Lufneu, was used by the Flemish physician Franciscus Mercurius van Helmont.

[46]In other cases, the uncertainty of medicine was stressed, giving more leeway to charlatans.

"The imposture of the charlatans would immediately be known to everyone, and no one would have recourse to anything but the truth: but unfortunately, of all the sciences studied by man, medicine is the most hidden, and one of those where the demonstrations are the least discernible, & sometimes the least established." ("L'imposture des Charlatans seroit d'abord connuë de tout le monde, & personne n'auroit recours qu'à la verité: mais par malheur de toutes les sciences que les hommes professent, la Medecine est la plus cachée, & une de celles où les demonstrations sont les moins sensibles, & quelquefois les moins établies.") (Caufapé, 1696).

[47]Herwig was opposed to this kind of argument: "Nevertheless, many things lye hid in the bosom of Nature, not to be apprehended by humane sense, which although by reason of our ignorance they seem superstitious and irrational (because their causes are unknown to us), yet are very far from being guilty of that crime" (1700, 64-65).

[48]Porter equated this to the placebo effect and treated it as an example of a psychologizing approach that reduces charlatanism to the playing out of "the perennial human comedy" (1989, 12-14).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

The technique consisted in first giving much hope to the patients, and then prescribing a therapy that would take a long time (preparing and administering certain drugs) so that the hope and expectation would grow. In this way, Lufneu agreed, the imagination could heal many things. Lufneu used this argument to argue that the urine cure itself had no efficacy: any beneficial consequences were only the effect of the imagination.[49] Lufneu's opponent Schilperoort was quick to point out that such a healing power did not fit Lufneu's own philosophy, which only allowed for material causes. Furthermore, if this power existed, why did these physicians, who dismissed wondrous cures as effects of the imagination, not "use this imagination for curing their patients, instead of having them suffer for so long?" (Schilperoort, 1697, 30-31). The imagination had many different epistemic roles, and was a core constituent of natural philosophy as well as medical practice, but, as Schilperoort pointed out, it was not always used in a consistent way.

How exactly the imagination could cure was a strongly contentious topic that cannot be reduced to the anachronistic idea of a "placebo" effect. Indeed, the debate around the urine cure contradicts the familiar and universalizing tropes around the healing power of the patient's imagination. At the end of the seventeenth century, some physicians still accepted a cosmic imagination that could explain wondrous phenomena and marvelous cures. Drawing on specific theories by the renowned physician Jan Baptist van Helmont, the healers and their supporters used the imagination to explain the sympathetic interactions that made the urine cure efficacious.

When Schilperoort composed his treatise against Lufneu, for example, he followed van Helmont, arguing that the imagination was intrinsically magnetic and could act at a distance, beyond the limits of one's own body. He mentioned the common example of a young pregnant woman who desired sweet berries and whose imagination imprinted the image of a berry on the fetus. He referred to the Helmontian version of the story, however, in which the berry changed color according to the different seasons – green, yellow, red – like a real cherry. For van Helmont, this correlation confirmed the existence of an action at a distance by a spiritual power, and Schilperoort referred to such a spiritual power to explain the urine cure (Schilperoort 1697, 14-17, 28).[50]

Herwig, one of the urine cure workers, would explain and legitimate the urine cure in a similar way: "If you seriously consider the power of the Imagination and the constitution of the Soul, you'll conclude that nothing is more curious, more true, more pleasant and secure than the effects of a high exalted imagination. . . . The Imagination of Fancy is a Loadstone [sic], that will attract beyond thousands of miles" (Herwig 1700, 61). He wrote about the imagination that "in these, and the aforementioned things consist all the secret of Physick," but he also warned of its misuse by those who took it beyond its proper bounds, especially by trying to harness astrological powers: "Superstitious Quacking ought never to cohabit with true and solid Physick" (Herwig 1700, 62-63; see also Herwig ca. 1698, 66-79). The action at a distance of the urine cure could therefore be explained by a serious medical theory, the Helmontian theory of imagination, rendering it – to Lufneu's horror – intelligible and explainable.

From this episode, it should be clear that attributing a case of wondrous healing to the imagination is not just "psychologizing," but is something that needs to be historicized. When charlatans were accused of misusing the imagination at the turn of the seventeenth century, this could refer to their manipulation of the credulity of the patient, but it could also refer to heterodox psychosomatic cures, to a spiritual medicine, to the manipulation of cosmic powers or even to the application of the principles of demonic magic. Throughout history, the imagination has had a complex relationship with reason, fiction and knowledge, and could interact in many

[49]See also Doedijns (1699b) for the "good power" of imagination that helps the cure. In contrast, Rettwig's own doctoral disputation only mentioned a specific effect of the imagination: in the case of fear, the vehement imagination may suddenly open one's bowels.

[50]For the story of the maternal imagination, see Van Helmont (1648, 40, 341, 351, 362, 538, and 772–773). See also Vermeir (forthcoming) and van den Elsen (2002).

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

different ways with the body as well as outer reality. This has had important epistemic implications for the meaning and cultural significance of the charlatan, who was often considered a master of the imagination.

Conclusion

In this article, I have studied the twin controversies of the urine cure and the divining rod in the context of the late seventeenth century Dutch republic, and used this case study to illustrate an epistemic approach to the history of charlatanism. This approach is also captured in the title of the article "Charlatan Epistemology," which I take to refer to both the charlatan's embodied epistemology and the (historical) epistemological study of the charlatan.

I have argued that the charlatan had an embodied epistemology akin to the artisanal epistemology, which has been studied especially in the last two decades. It became clear when studying how the historical actors used the concept of charlatanism that its many meanings did not coalesce around practices such as selling medicines on the marketplace. Rather, charlatanism implied a special skill to manipulate either natural secrets or the human psyche. Some of our protagonists argued that long experience or a special talent allowed charlatans to manipulate nature. Others believed that charlatans mastered an art of deception that consisted of a variety of complex bodily and mental techniques. One of these techniques involved the manipulation of the other's imagination, and because the imagination itself harbored many natural secrets, such techniques could be very efficacious in the mental, corporeal and material realms.

I have also argued that a historical epistemology of charlatanism can yield interesting results. The term "charlatan" did not have a stable referent in our case study, as the historical actors disagreed, doubted and changed their mind about who "was" a charlatan. Nevertheless, they used the concept of the charlatan to make epistemic interventions in heated debates about what constituted credible knowledge, the value of evidence and the efficaciousness of different kinds of causality. In three examples of epistemic concepts, values and arguments that were prominent in our case study, I demonstrated that these epistemic interventions were not instances of a universal rhetoric of charlatanism, but were historically and contextually specific. By showing how the epistemic aspects of the charlatan were intertwined with moral, religious and political concerns, I could further illustrate the richness of a historical epistemology of charlatanism.

Historical epistemology promises to show how today's concepts, and thus our current ways of thinking, are the outcome of a long history of epistemic negotiations, rich contexts and contingent choices. Our concepts and epistemic interaction with the world could have been different, and may change in the future. Similarly, the charlatan, or his rejection, is not a universal given. Ideas of what a charlatan is may change. Epistemic values can vary and the future may have different answers to epistemic and moral questions such as what constitutes actionable knowledge, what kind of evidence is acceptable and how we allow our imagination to be manipulated. A better understanding of such epistemic shifts in the past may make us more and differently aware of the changes that are happening today.

References

Anon. 1649. *The Disease of the House: or, the state mountebanck: administring Physick to a sick Parliament*. Nod-nol [i.e. London].

Anon. 1687. *Le Charlatan découvert*. Toulouse.

Anon. 1692. *Loofwerck op het ondersoeck van Der valsche Genees-meesteren onwetenheyt*. Harderwijk: Rampen.

Anon. 1697. *Nodige Verantwoordinge* (pamphlet bounded in the copy in the Municipal Library of Rotterdam of Rabus, *De Weergalooze Dichter*).

Anon. 1698. "Lettre à M. *** sur l'impossibilité des opérations sympathiques. Par M. L***, docteur en médecine. In 12. A Rotterdam. 1697." *Journal De Savans* (Amsterdam edition), 13 January, p. 30-33.

Anon. 1699. *Oprechte Haerlemse Saturdaegse Courant*. Haarlem: Casteleyn.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

Anon. [Slaart, Pieter vander.] 1701. "Wy konnen ter ernstiger verzoeke van verscheyde Vrienden niet nalaten de volgende Brief met de twee Attestatien hier te laten volgen." *De Boekzaal van Europe*, November-December, p. 447-458.

Anon. 1705. "Entre les merveilleures Cures . . . " *Le mercure galant*, February, p. 213-263.

Asmussen, Tina and Hole Rößler. 2013. *Scharlatan! Eine Figur der Relegation in der frühneuzeitlichen Gelehrtenkultur. Zeitsprünge* Band 17, Heft 2/3. Frankfurt/Main: Klostermann.

Baron d'Almerigo, Giuseppe. 1699. *Manifest van de Baron d'Almerigo, Vinder en eenigste Besitter van de groote Konst des algemeinen genesinge der siektens door Sympathie*. Koninklijke Bibliotheek, shelfmark: pflt 14457.

Basnage de Beauval, Henri. 1697. "Een Brief over de onmogelijkheid der zoogenaamde Sympathetische Werking, geschreven van den Heer Doctor Herman Lufneu, Rotterdammer Stads Arts. De aloude bekende mogelijkheid van de Sympathetische Werkinge, voorgesteld in een Brief aan den Heer . . . . Door Jan Schilperoort Med. Doct. Natuurkundig Vertoog over de onmogelijkheid der zoogenaamde Sympathetische Werking, briefswijze geschreven door Doctor Herman Lufneu, Rotterdammer Stads Arts. Zijn gewaande Wederlegger Dr. J.S. word onder anderen beantwoort. C'est-à-dire, La possibilité, & l'impossibilité des effets de la poudre de Sympathie &c. Te Rotterdam by Pieter vander Slaart, en by Barent Bos in 8 pagg. 18. 32. & 160." *Histoire des Ouvrages des Savans*, May, p. 408-417.

Bayle, Pierre. 1675. Pierre Bayle to Joseph Bayle, Rouen, 7 February (Letter 77). http://bayle-correspondance.univ-st-etienne.fr/?Lettre-77-Pierre-Bayle-a-Joseph&lang=fr (Last accessed: 23 November 2020).

Bayle, Pierre. 1696. Pierre Bayle to Jean-Baptiste Dubos, [Rotterdam,] Monday 3 September (Letter 1156) http://bayle-correspondance.univ-st-etienne.fr/?Lettre-1156-Pierre-Bayle-a-Jean&lang=fr (Last accessed: 23 November 2020).

Bayle, Pierre. 1697a. Pierre Bayle to Jean-Baptiste Dubos, Rotterdam, 7 March (Letter 1229) http://bayle-correspondance.univ-st-etienne.fr/?Lettre-1229-Pierre-Bayle-a-Jean&lang=fr#nh8 (Last accessed: 23 November 2020).

Bayle, Pierre. 1697b. Pierre Bayle to Jean-Baptiste Dubos, Rotterdam, 12 August (Letter 1286). http://bayle-correspondance.univ-st-etienne.fr/?Lettre-1286-Pierre-Bayle-a-Jean&lang=fr (Last accessed: 23 November 2020).

Bayle, Pierre. 1697c. *Dictionaire historique et critique*. Vol. **1**. Rotterdam: Leers.

Bayle, Pierre. 1702. "Additions et corrections pour le 1. Tome." *Dictionnaire historique et critique*. Rotterdam: Leers.

Bayle, Pierre. 1710. *An Historical and Critical Dictionary*. Vol. **1**. London: Harper et.al.

Berti, Silvia, Françoise Charles-Daubert and R.H. Popkin (eds.) 1996. *Heterodoxy, Spinozism, and Free Thought in Early-Eighteenth-Century Europe: Studies on the Traité des Trois Imposteurs*. Heidelberg: Springer.

Berti, Silvia. 2016. "Autour de l'auteur du Traité des Trois imposteurs. Milieux, amitiés, édition." *La Lettre clandestine* **24**: 19–34.

Beyer, Jürgen. 2003. "Ein Husumer Gebetsheiler (1680/81) als Trumpfkarte in der konfessionellen Polemik." In *Confessional Sanctity* (c. 1550 – c. 1800), edited by Jürgen Beyer, Albrecht Burkardt, Fred A. van Lieburg and Marc Wingens, 337–356. Mainz: Philipp von Zabern.

Brian, Thomas. 1637. *The pisse-prophet, or, Certaine pisse-pot lectures Wherein are newly discovered the old fallacies, deceit, and jugling of the pisse-pot science, used by all those (whether quacks and empiricks, or other methodicall physicians) who pretend knowledge of diseases, by the urine, in giving judgement of the same*. London: Thrale.

Buissière, Paul. 1698. Pierre Buissière to Pierre Bayle. Paris, 25 July (Lettre 1370). http://bayle-correspondance.univ-st-etienne.fr/spip.php?page=article&id_article=48005089&lang=fr (Last accessed: 23 November 2020).

Cadet de Gassicourt, Charles-Louis. 1813. "Charlatan, charlatanisme." In *Dictionnaire des sciences médicales: Biographie médicale*, edited by Charles Louis Fleury Panckoucke, 543-553. Paris: C. L. F. Panckoucke.

Caufapé, Anicet. 1696. *Nouvelle explication des fièvres*. Toulouse: Desclassan.

Corneille, Thomas. 1694. *Le dictionnaire des arts et des sciences*. Vol. **2**. Paris: Coignard.

Cremer, Thomas. 1697. *Verdedigingе van Thomas Cremer*. Rotterdam: Pieter van der Slaart.

Cryle, Peter. 2006. "Charlatanism in the 'Age of Reason'." *Cultural and Social History* **3** (3):243–249.

Cunningham, Andrew and Perry Williams. 1993. "De-Centring the 'Big Picture': The Origins of Modern Science and the Modern Origins of Science." *The British Journal for the History of Science* **26**:407–432.

Daston, Lorraine and Peter Galison. 2007. *Objectivity*. New York: Zone Books.

de Francesco, Grete. 1937. *Die Macht des Charlatans*. Basel: Benno Schwabe und Co.

de Vet, Joannes Josephus Victor Maria. 1980. *Pieter Rabus: een wegbereider van de Noordnederlandse verlichting*. Amsterdam: Holland University Press.

Dear, Peter. 2006. *The Intelligibility of Nature: How Science Makes Sense of the World*. Chicago: Chicago University Press.

Doedijns, Hendrik. 1699a. *Haegse Mercurius*, 7 March. The Hague: Van Limburg.

Doedijns, Hendrik. 1699b. *Haegse Mercurius*, 28 March. The Hague: Van Limburg.

Doedijns, Hendrik. 1699c. *Haegse Mercurius*, 4 April. The Hague: Van Limburg.

Doedijns, Hendrik. 1699d. *Haegse Mercurius*, 3 June. The Hague: Van Limburg.

Dubos, Jean-Baptiste. 1696. Jean-Baptiste Dubos to Pierre Bayle. Beauvais, 23 September 1696 (Lettre 1160) http://bayle-correspondance.univ-st-etienne.fr/?Lettre-1160-Jean-Baptiste-Dubos-a&lang=fr#nh12 (Last accessed: 23 November 2020).

Füssel, Marian. 2004. "Charlataneria Eruditorum', Zur sozialen Semantik des gelehrten Betrugs im 17. und 18. Jahrhundert." *Berichte zur Wissenschaftsgeschichte* **27** (2):119–135.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

Füssel, Marian. 2006. "'The Charlatanry of the Learned': On the Moral Economy of the Republic of Letters in Eighteenth-Century Germany." *Cultural and Social History* **3** (3):287–300.

Gentilcore, David. 2006a. *Medical Charlatanism in Early Modern Italy*. Oxford: Oxford University Press.

Gentilcore, David. 2006b. "The 'Golden Age of Quackery' or 'Medical Enlightenment'? Licensed Charlatanism in Eighteenth-Century Italy." *Cultural and Social History* **3** (3):250–263.

Heath, Joseph. 2014. *Enlightenment 2.0*. New York: Harper Collins.

Herwig, Henning Michael. 1692. *Disputatio Medica Inauguralis de Medicorum non Medicorum Ignorantia*. Harderwijk: Sas.

Herwig, Henning Michael. 1700. *The Art of Curing Sympathetically, or, Magnetically*. London: Newborough, Parker, Buck.

Herwig, Henning Michael. ca. 1698. *Ars Curandi Sympathetice sive Magnetice Verissima*. Culemborg: Hammius.

Iliffe, Rob. 1999. "Lying Wonders and Juggling Tricks: Religion, Nature, and Imposture in Early Modern England." In *Everything Connects: In Conference with R.H. Popkin*, edited by James Force and David S. Katz, 183–211. Leiden: Brill.

Le Brun, P. 1732. Lettres qui découvrent l'illusion des philosophes sur la baguette, et qui détruisent leurs systèmes. In Histoire critique des pratiques superstitieuses, Vol. 3. Edited by P. Le Brun. Paris: Delaulne. (Sections were first published in 1693).

Le Clerc, Laurent Josse. 1732. *Lettre critique sur le Dictionaire de Bayle*. The Hague.

Lufneu, Herman. 1697a. *Lettre a mr. B**** [Bayle] *sur l'impossibilité des operations sympathiques*. Rotterdam: Acher,

Lufneu, Herman. 1697b. "Een Brief, over de onmogelijkheid der zoogenaamde Sympathetische Werking," translated by Peter Rabus. *De Boekzaal van Europe*, January-February, p. 123-140.

Lufneu, Herman. 1697c. *Natuurkundig vertoog over de onmogelijkheid der zoo genaamde sympathetische werking*. Rotterdam: Bos.

Lufneu, Herman. 1697d. *De Boekverkooper P: vander Slaart, In sijn valsheid duidelijk ontdekt en kortelijk afgewezen*. Rotterdam: Bos.

Lufneu, Herman. 1697e. *Een Spiegeltje voor Thomas Cremer, Advocaet der Pisbewerkers, en Groot hervormer der Hollandsche Tale*. Rotterdam: Bos.

Mandelbrote, Scott. 2017. "Witches and Forgers: Anthonie van Dale on Biblical History and the Authority of the Septuagint." In *Scriptural Authority and Biblical Criticism in the Dutch Golden Age*, edited by Dirk van Miert, Henk Nellen, Piet Steenbakkers and Jetze Touber, 270–306. Oxford: Oxford University Press.

Mencke, Johann Burkhard. 1715. *De Charlataneria Eruditorum*. Leipzig: Gleditsch.

Naudé, Gabriel. 1679. *Considérations politiques sur les coups d'Estat.*

Nasim, Omar. 2013. "Was ist historische Epistemologie?" In *Nach Feierabend*, edited by Michael Hagner and Caspar Hirschi, 123–144. Zurich & Berlin: Diaphanes.

Ossa-Richardson, Anthony. 2013. *The Devil's Tabernacle: The Pagan Oracles in Early Modern Thought.* Princeton: Princeton University Press.

Pelling, Margaret. 2003. *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners 1550-1640*. Oxford: Oxford University Press.

Pomata, Gianna. 1998. *Contracting a Cure: Patients, Healers, and the Law in Early Modern Bologna*. Baltimore: Johns Hopkins University Press.

Porter, Roy and W. F. Bynum (eds.). 1986. *Medical Fringe and Medical Orthodoxy 1750-1850*. London: Croom Helm.

Porter, Roy. 1986. "Quack Medicine in Georgian England." *History Today* **36** (11):16–22. https://www.historytoday.com/archive/feature/quack-medicine-georgian-england (Last accessed: 31 October 2021).

Porter, Roy. 1989. *Health for Sale: Quackery in England 1660–1850*. Manchester: Manchester University Press.

Povey, Charles. 1711. *The Visions of Sir Heister Ryley*. London: Printed for the author.

Proctor, Robert N. and Londa Schiebinger (eds.). 2008. *Agnotology: The Making and Unmaking of Ignorance*. Palo Alto, CA: Stanford University Press.

Rabus, Pieter. 1697a. "'Naschrift' and 'Tweede Naschrift.'" *De Boekzaal van Europe*, May-June, p. 435-437.

Rabus, Pieter. 1697b. "Historie van overzeldzame genezingen." *De Boekzaal van Europe*, January-February, p. 67-76.

Rabus, Pieter. 1697c. "Nog Wat." *De Boekzaal van Europe*, May-June, p. 560.

Rabus, Pieter. 1697d. "Een opregt verhaal van eenige proeven der WICHELROEDE." *De Boekzaal van Europe*, May-June, p. 389-437.

Ramsey, Matthew. 1988. *Professional and Popular Medicine in France, 1770-1830: The Social World of Medical Practice*. Cambridge: Cambridge University Press.

Renaud, André. 1693. *Critique sincère de plusieurs écrits sur la fameuse baguette*. Lyon: Langlois.

Rettwich, George Henrik von [Reddewitz, Henricus Georgius]. 1697. *Disputatio Medica Inauguralis de Vero Catharticorum Usu*. Harderwijk: Sas.

Schilperoort, Jan. 1697. *De aloude bekende mogelijkheid van de sympathetische werkinge*. Rotterdam: vander Slaart.

Smith, Pamela H. 2018. "Epistemology, Artisanal." In *Encyclopedia of Renaissance Philosophy*, edited by Marco Sgarbi. Dordrecht: Springer.

Sturm, Samuel. 1663. *Discursus medicus de medicis non-medicis, in salutem periclitantis proximi*. Wittenberg: Hartmann.

Swift, Jonathan. 1710. *The Virtues of Sid Hamet the Magician's Rod*. London: Morphew.

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press

Thijssen-Schoute, Caroline Louise. 1960. "Hermanus Lufneu, Stadsarts te Rotterdam." In *Rotterdams Jaarboekje*, edited by Hendrik Cornelis Hazewinkel, 180-227. Rotterdam: Brusse.

Thijssen-Schoute, Caroline Louise. 1967. *Uit de Republiek der Letteren. Elf studiën op het gebied der Ideeëngeschiedenis van de Gouden Eeuw*. The Hague: Nijhoff.

Vallemont, Pierre le Lorrain de. 1696. *La physique occulte, ou traité de la baguette divinatoire.* Amsterdam: Braakman. (Expanded version of the 1693 edition)

van Dale, Anthonie. 1683. *De oraculis ethnicorum*. Amsterdam: Boom.

van Dale, Anthonie. 1687. *Verhandeling van de Oude Orakelen der Heydenen*. Amsterdam: Boom.

van den Elsen, Juliëtte. 2002. "The Rotterdam Sympathy Case (1696-1697): A Window on the Late Seventeenth-Century Philosophical Discourse". *Aries* **2** (1):34–56.

van den Elsen, Juliëtte. 2003. "Monsters, demonen en occulte krachten." Ph.D. diss., KU Nijmegen.

vander Slaart, Pieter. 1697. *Verantwoordinge van P. vander Slaart, tegen de beschuldiginge hem opgetigt in het Natuerkundig vertoog over de onmogelijkheid der zoo genaamde sympathetische werkinge van Dr. Herman Lufneu*. Rotterdam: vander Slaart.

van Helmont, Johan Baptista. 1648. *Ortus medicinæ*. Amsterdam: Lodewijk Elsevier.

van Leeuwenhoek, Antonie. 1697. "Part of a Letter from Mr. Antony van Leuwenhoeck, Dated Apr. 5. 1697. Giving an Account of Several Magnetical Experiments; and of One Who Pretended to Cure or Cause Diseases at a Distance, by Applying a Sympathetick Powder to the Urine." *Philosophical Transactions* **19**:512–521.

van Leeuwenhoek, Antonie. 1989a. Leeuwenhoek to the Royal Society, 5 April 1697 (Letter No. 184). In *Alle de brieven. Deel 12: 1696-1699,* edited by L.C. Palm, 136-159. Lisse: Swets & Zeitlinger. (Manuscript: Royal Society, MS. 1966, Early Letters L.3.1.)

van Leeuwenhoek, Antonie. 1989b. Leeuwenhoek to Ehrenfried Walther von Tschirnhaus, 1699 (Letter No. 205). In *Alle de brieven. Deel 12: 1696-1699,* edited by L.C. Palm, 354-373. Lisse: Swets & Zeitlinger.

vander Vinne, Izaak. 1697. "Ondervindingen wegens de Wichel-roede" [Manuscript UVA hs. VIII E 2].

Vermeir, Koen. 2005. "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 Biological and Biomedical Sciences* **36** (1):1–24.

Vermeir, Koen. 2011. "Circulating Knowledge or Superstition? The Dutch Debate on Divination." In *Silent Messengers: The Circulation of Material Objects of Knowledge in the Early Modern Low Countries,* edited by Sven Dupré and Christoph Herbert Lüthy, 293-328. Berlin: LIT Verlag.

Vermeir, Koen. 2012. "The Dustbin of the Republic of Letters: Pierre Bayle's "Dictionaire" as an Encyclopedic Palimpsest of Errors." *Journal of Early Modern Studies* **1** (1):109–149.

Vermeir, Koen. Forthcoming. "From Psychosomatic and Maternal Fancy to Demonic and Cosmic Imagination. Wonders, Imagination and Spirit of Nature in Henry More." In *Animating the Mechanical World: New Perspectives on Cudworth and More*, edited by Martine Pecharman and Laurent Jaffro. Hildesheim: Olms Verlag.

Vilbussière. 1712. *Discours du boiteaux sur la baguette divinatoire qui parait depuis quelque temps en France, et de ses conséquences envers la philosophie*. Amsterdam.

Koen Vermeir is a research professor at the French National Research Center and the University of Paris. He has worked mostly on early modern history, focusing on the history of imagination and the intersection between religion and technology. Recently he has started to explore more contemporary issues in the science-society-policy nexus and has been an expert, advisor or chairperson for several international science and policy organizations such as the GYA, the European Commission, the NAS, the G7 Academies, IAP and ISC. He is Editor-in-Chief of the journal *Centaurus*, director of the book series *TECHNE* and serves on the Executive Council of the European Society for the History of Science.

Cite this article: Vermeir, Koen. 2020. "Charlatan epistemology: As illustrated by a study of wonder-working in the late seventeenth-century Dutch Republic," *Science in Context* **33**:363–384. doi:10.1017/S0269889721000193

https://doi.org/10.1017/S0269889721000193 Published online by Cambridge University Press