

(Re-)defining "animal magnetism": the mesmerism investigations of 1784

Chloé Conickx

▶ To cite this version:

Chloé Conickx. (Re-) defining "animal magnetism": the mesmerism investigations of 1784. La Révolution française - Cahiers de l'Institut d'histoire de la Révolution française, $2023,\ 24,\ 10.4000/lrf.7136$. hal-04091649

HAL Id: hal-04091649

https://hal.science/hal-04091649

Submitted on 8 May 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.





La Révolution française

Cahiers de l'Institut d'histoire de la Révolution française

24 | 2023

Du mesmérisme au magnétisme animal. Diffusion et résurgences entre les XVIII^e et XIX^e siècles

(Re-)defining "animal magnetism": the mesmerism investigations of 1784

Chloé Conickx



Electronic version

URL: https://journals.openedition.org/lrf/7136 DOI: 10.4000/lrf.7136 ISSN: 2105-2557

Publisher

IHMC - Institut d'histoire moderne et contemporaine (UMR 8066)

Electronic reference

Chloé Conickx, "(Re-)defining "animal magnetism": the mesmerism investigations of 1784", *La Révolution française* [Online], 24 | 2023, Online since 03 April 2023, connection on 08 May 2023. URL: http://journals.openedition.org/lrf/7136; DOI: https://doi.org/10.4000/lrf.7136

This text was automatically generated on 8 May 2023.

All rights reserved

(Re-)defining "animal magnetism": the mesmerism investigations of 1784

Chloé Conickx

AUTHOR'S NOTE

I would like to thank Steven Vanden Broecke, David Armando, the editors and anonymous reviewers of *La Révolution française* for their valuable feedback and suggestions.

Introduction

One of the most notorious controversies of late eighteenth-century medicine and science was the mesmerism affair. Scandal, spectacle, polemics, and power struggles followed the inventor of magnetic therapy, Franz Anton Mesmer (1734-1815), from Vienna to Paris, where he arrived in 1778. Mesmer claimed the existence of an imponderable magnetic fluid that connected all bodies and that he could wield to cure diseases. Despite its immense popularity, the therapy became heavily contested and subjected to criticism, polemics, and investigation, which all needs to be understood within the politically charged context of the institutional power struggles in the medical field.² Eventually, in August 1784, animal magnetism was condemned by two commissions— one delegated by the Académie des Sciences and the Faculté de médecine (often referred to as the 'royal commission'), the other by the Société royale de médecine. Their reports detailed the protocols they executed to test the reality and efficacy of the controversial therapy and concluded that magnetic therapy was illusionary and dangerous. Although the two commissions conducted the investigation at the same time and came to the same conclusions, the royal commission's report, which detailed the experimental trials of animal magnetism, was most influential.³ The publication of

- these findings led to fierce and highly polemical discussions, as shown by the subsequent pamphlet war between 'opponents' and 'supporters'.⁴
- The royal commission's 1784 investigations, some historians have claimed, held immense significance in the development of modern 'psychology'. The newly designed experimental protocols marked the first deliberate psychological tests and the first usage of the placebo. From this perspective, the denunciation of mesmerism marked the scientific triumph of the experimental method.⁵ However, other historians have pointed out that, even though the commissions positioned themselves as representing 'rational' and 'modern' experimental science, their proceedings were characterised by insecurities, contradictions and instabilities. For instance, Bruno Belhoste argued that the two commissions did not form one coherent and stable front against mesmerism and demonstrated their methodological differences. Even among the physicians of the Société royale's commission, there was no unanimity on how to properly proceed with the investigation, of which the dissention of one of its members was symptomatic.6 Another historian debunked the classic distinction between heterodox and orthodox science by advancing magnetic therapy as a 'caricature' of the empirical natural philosophy of the late 18th century, which privileged sensory experience as the cornerstone of empirical practices and knowledge inquiry. Mesmer prioritised sensations to such an extent in his practices that he revealed the vulnerabilities of basing one's inquiry into the natural world entirely on sensations. In this way, magnetism forced the commissions to depart from their own axioms and adjust the subject's sensory relation to the natural world, via the imagination.
- Other scholars have argued that the royal commission's experimental protocols were designed and conducted with particular end results and expectations already in mind: that the imagination instead of a physical fluid was responsible for magnetic phenomena.⁸ In this respect, François Azouvi highlighted that the commissioners, and not Mesmer, (re-)defined the magnetic sensations as non-physical.⁹ Likewise, Koen Vermeir showed that the commissioners shaped and implemented an 'unhistorical' and illusionary imagination in their study of animal magnetism to undermine the legitimacy of the therapy.¹⁰ In this way, it can be argued that the commissioners turned 'animal magnetism' into something different than it originally was.¹¹
- This scholarship already points us towards an appreciation of the 1784 investigations as a process of 'boundary-work' in which the meaning, definition and boundaries of what 'animal magnetism' entailed (and what it did not), were constantly and progressively negotiated, tested, re-positioned and re-defined.¹² However, more work needs to be done to fully capture these complex and dynamic processes of contestation, appropriation and re-configuration in the late eighteenth century. This article claims to contribute to this. What animal magnetism was, how it functioned, who could wield it, and how it could be tested: answers to these questions were not determined or standardised, but subject to intense negotiations between various actors-institutional and non-institutional, magnetisers and non-magnetisers—who claimed the authority to make such distinctions and definitions, and, in turn, contested the legitimacy of other competitors in the early 1780s. This article argues that the 1784 royal commissioners altered the meaning of magnetic therapy for their own purposes and interests and, in doing so, gave no closure to the question of magnetism's credibility.13 In competing with other experts for the correct demarcation of magnetic practices, they undermined the therapy's legitimacy to secure their own position in the struggle for scientific and

- medical authority. In particular, I argue that the commissioners' experiments translated specific background assumptions about the meaning, delineation, and therapeutic function of animal magnetism that required constant monitoring and stabilising.
- Firstly, I will argue that the experimental setting translated the commissioners' own delineation and definition of magnetism to the investigations. The commissioners prioritised the production of sensations as the observable manifestation of the magnetic fluid's existence and action on the human body. In addition, they identified specific signs and gestures that needed to be performed, in their view, to activate magnetism, which in turn also shaped their protocols. Secondly, I will show that the first experiments generated important demarcation criteria that served the mapping of magnetic sensibilities according to the social rank of patients and, in doing so, addressed social concerns as well. The non-uniform nature of the experimental results threatened to destabilise the commissioners' control over the relation between sensations and magnetism. By attributing the perceived effectiveness of Mesmer's therapy to patients' gullible imagination, the commissioners based their explanation of magnetic therapy on their assumptions about the lower class's over-sensitive nature. Thirdly, I will demonstrate how the commissioners refined the design of their experimental protocol to secure the controlled testing and the credibility of the imagination. In doing so, they not only changed the body's relation to the natural world, but also problematised the moral relations between magnetiser and patient. Lastly, I will explain how the commissioners undermined the credibility of the mesmerist (and Hippocratic) term 'crisis', a notion widely used in Hippocratic medicine to describe the pivotal moment in which the restoration of health was determined. They did so by re-defining the remarkable bodily phenomena observed in collective therapies as violent and harmful convulsions that endangered individual and public well-being, and the socio-political order.

Medical authority and the high stakes of a definable 'magnetism'

- In the early 1780s, there was no consensus on what 'animal magnetism' was, how it was therapeutically applied and by whom, and how it could be tested. Since his arrival in Paris in 1779, Mesmer repeatedly emphasised that the incommunicable nature of animal magnetism delayed the codification of a 'theory'.¹⁴
- On the one hand, this was problematic because the authority and legitimacy of Mesmer and his doctrine remained unacknowledged. As several historians have pointed out, the late eighteenth century was characterised by growing popular interest and public involvement in scientific debates. The public opinion became a significant source of authority and credibility, which the publication and dissemination of scientific ideas called upon. Publications were thus not a consequence of institutional recognition, but conditioned the negotiation and establishment of authority.
- On the other hand, the lack of theoretical publications also allowed Mesmer to avoid condemnation. Mesmer refused any 'official' investigations of his therapy because, he argued, testing required understanding. Examinations on the reality of the fluid thus had to wait until his doctrine was perfected, codified, and published. Instead, Mesmer promoted the circulation of medical narrative reports that recorded the patient's

health status, the progress of his disease, and his recovery.¹⁷ In addition, he had appealed to the *Faculté de médecine* in September 1780 for an examination of the therapy's curative results, which the doctor-regents declined.¹⁸

Four years later, in 1784, Mesmer's theory had still not been published, which was the source of many frustrations and speculations in the public debate regarding magnetism's true (therapeutic) meaning and capacities. 19 Not even Charles Deslon, Mesmer's first disciple, had completely published the doctrine even though he claimed to be fully instructed. 20

However, Deslon did implore the baron de Breteuil, the newly appointed minister of the King's household, to open an official investigation into magnetic therapy, which incited Mesmer to cut all ties with his former student.²¹ Deslon, who was not only a magnetiser but also an esteemed doctor-regent, wanted to avoid a permanent condemnation and suspension by the medical faculty, after multiple attempts to have animal magnetism endorsed by his alma mater had failed. The response was positive: in March 1784, three physicians of the medical Faculty and nine physicists²² of the *Académie des Sciences* were appointed to investigate animal magnetism in cooperation with Deslon.²³ In addition to this royal commission, the physicians of the *Société royale de médecine* issued an investigation as well on their own initiative—to compete with the faculty—and acted as an independent commission.

The authority of these institutional commissions was not self-evident at all. Medical and scientific authority positions were constantly contested, appropriated, and negotiated in the 1770s and 1780s.²⁴ On the one hand, the mesmerism controversy reignited the conflict between the *Société royale de médecine* and the medical faculty. Founded in 1778 under a royal decree, the *Société royale* took over the monopoly on medical education and the policing of new remedies. This role traditionally befell the doctor-regents of the medical faculty.²⁵ On the other hand, medical and scientific practice was not the privilege of *savants* affiliated with these institutions.²⁶ The Parisian medical field of this period was characterised by what institutions called 'quacks' and 'charlatans' who appealed to the credulous French public with their spectacular demonstrations and appealing new theories. They, too, competed for medical authority, which was not only determined by the powers of the King but maybe even more so by the public opinion.²⁷

The stakes were thus high for these Parisian institutions as Mesmer's new therapy captivated the city in the early 1780s. At the same time, the lack of consensus on what magnetism was and how it could be investigated opened opportunities for the commissioners to provide definitions and claim epistemic authority over the doctrine and the therapy.

The experimental setting: containing and delineating magnetism in the body

The two commissions began their investigations in late April 1784, with two preliminary joint meetings to discuss the testing procedure and to receive instruction from Deslon regarding the doctrine and his therapy.²⁸ They agreed to attend Deslon's treatments to observe the magnetic fluid in action.²⁹ This therapy was collective: multiple patients were connected to a magnetic tub with iron rods, and formed a chain

by touching each other's thumbs. Meanwhile, a pianoforte was playing soft tunes. This entire setting, Deslon claimed, intensified the circulation of the fluid and its therapeutic benefits.³⁰ The magnetiser conducted the fluid to the patients by pointing his finger or an iron wand at them, or by applying his hands to their bodies.³¹

The commissioners found that the treatment lacked initial definition and delineation, in contrast with many magnetisers and physicians who privileged the experience of bodily relief as a criterion for evaluating the therapy.³² The collective nature of the treatment obstructed the rigorous assessment of the magnetic fluid's influence, and this in two ways. One problem was the multiplicity of effects; the commissioners argued that 'one sees too many things at once to see any one of them well.'³³ Patients displayed an incredibly diverse array of 'different states': some remained calm and tranquil and did not display any observable effect, others felt pain or heat, and violent convulsions tormented another group.³⁴ An additional problem was the commissioners' 'indiscrete' attendance at treatments, which would displease and embarrass the more distinguished patients. The observation of the collective treatment transgressed established moral boundaries of etiquette.³⁵

But cures, too, lacked definition and control.³⁶ Here, the problem lay in the combined usage of magnetisation with other remedies, as well as in the temporal delay of cures, which undermined their secure causal attribution to magnetism, nature, or something else.³⁷ Only an 'infinite amount' of long-term observations could potentially shed some light on their efficacy, but this was unattainable for the commissioners' examinations. As a result, they decided that the therapeutic setting was an unreliable site to investigate magnetism, as they indicated in the report:

The treatment of patients thus can only give results that are always uncertain and often false; this uncertainty could only be dissipated, and all causes of error removed, by an infinite number of cures and, perhaps, by experience over several centuries.³⁸

Consequently, the commissions' experimental setting was not only designed to test, but —more fundamentally—to define and delineate. It transferred the commissioner's preferred assumptions and definitions to the phenomena of the magnetic cure, thus containing these unwieldy phenomena. Firstly, the commissioners appropriated Deslon's conception of the human body as the primary locus of the fluid's observable manifestations. They argued that Deslon had 'declared expressly [...] that he could only demonstrate the existence of Magnetism by the action of the fluid causing changes in living bodies.'³⁹ In this way, the magnetised body provided initial delineation of magnetism and was uniquely positioned to materially contain the magnetic fluid. However, whereas many mesmerists considered long-term curative effects as proof of this universal relation, the commissioners pointed out that the short-term and direct bodily effects of the fluid, like the sensations, offered more convincing evidence since they could be securely attributed to their proper source.⁴⁰

In her influential study of the 1784 investigations, the historian Jessica Riskin depicted magnetism as a 'sensationalist' doctrine, already well-defined by magnetisers before 1784.⁴¹ Indeed, mesmerists like Mesmer and Deslon recognised the important epistemological advantages of one's sensibility to magnetism: patients who had felt the action of the fluid during their treatment better grasped its (incommunicable) existence.⁴² Nevertheless, they equally emphasised that this sensibility was not a universally shared trait of magnetised bodies—many patients remained insensible to

the fluid's action on their bodies.⁴³ In other words, contrary to the commissioners, and to Riskin's claims, magnetisers did not bind the fluid's existence to the manifestation of sensations (or the lack thereof). The experiments thus reflected the commissioners' shifting interpretations of 'animal magnetism' and, in particular, of the defining role of the sensations.⁴⁴

The second assumption that was inscribed in the commissioners' experimental protocol was understanding of the fluid as acting separately on individual bodies. This too differed from many mesmerists who claimed that effects intensified and became more observable in collective therapies. The commissioners in contrast found that collectiveness was redundant for the fluid's functioning and, as aforementioned, argued that it impeded them from defining the limits of magnetism and isolating it as the sole cause of the produced bodily effects. Testing 'individual subjects' instead of groups assured that the sensations could be separated 'from all the illusions with which they might be mixed and [...] that they could be due to no cause other than Animal Magnetism.'46

Thirdly, the commissioners selected material objects and procedures they believed capable of activating the presumed fluid, like Deslon's specific gestures and his usage of an iron wand, and also translated these to their experimental protocols. ⁴⁷ In doing so, the correct performance of a finite, well-defined, and replicable set of signs and gestures was assumed to control the magnetic fluid, and rejected the relevance of theoretical instruction or a unique disposition—an issue that had been heavily debated since 1782. ⁴⁸ Experimental testing thus became the key practice allowing the commissioners to control and stabilise the boundaries of magnetism's effects and their corresponding causes.

Mapping magnetic bodies: the imagination and social demarcations

Having attended Deslon's treatments, the commissioners proceeded to the actual testing of magnetism. They decided to conduct the first set of experiments on themselves at Deslon's magnetic clinic. As we have seen, the commission had well-defined its testing procedure by now. Deslon performed the protocol expected to activate and control the fluid, and 'magnetised' the commissioners. If they felt sensations, the commissioners reasoned, the reality of the magnetic fluid was verified—if not, it was falsified. The results were conclusive: the commissioners felt nothing in response to magnetisation. They repeated the experiment on eight healthy test subjects, who also remained insensible. The commissioners thus introduced a first criterion to demarcate magnetic sensibility from insensibility, which had in fact already been announced by Deslon and other mesmerists: one's state of health.

To substantiate these first results, they moved to Benjamin Franklin's residence at Passy to conduct the next set of experiments, for which they selected 'really ill' test subjects 'from the class of the people'. However, these experiments showed an irregular production of sensations—four out of seven subjects felt nothing, but three did.⁴⁹ Obviously, these irregularities threatened to destabilise the commissioner's control over the relation between sensations and the magnetic fluid. Preservative measures needed to be taken.

The commissioners therefore called in an alternative causal hypothesis for the irregularity in producing sensations: the imagination. They admitted that even in their self-experimentation, some felt light sensations, which were now traced back to the commissioners' variable and subjective experience of the procedure. More specifically, they explained that 'feeling' often had an embodied source and that one's sensible constitution, on the one hand, and external stimuli, on the other, determined its activation. Subsequently, they hypothesised that the real source of the sensations at Passy was the incited imagination, not the magnetic fluid. Given the non-production of sensations in the other four test subjects, they hypothesised that the magnetic fluid did not exist.

To substantiate this hypothesis, the commissioners traced signs of the imagination in their experiments. After all, the axioms of Physics, they argued, stipulated that one looked at known and attested causes first to explain effects, before considering the existence of a new and unknown source.53 As other historians have argued, class played some role in determining the degree of subjects' susceptibility to the imagination.54 The commissioners attributed a weaker and imbalanced imagination to the lower-class individuals that they had tested first and who felt sensations. In contrast, upper-class members-including the commissioners themselves- were considered to have a more healthy imagination balanced by a reasoned judgement. As a means of control, they subsequently performed the same experiment on 'patients whose circumstances were different, patients chosen from within society who would be expected to be independent and whose intelligence would make them capable of discussing their own sensations and giving an account of them.'55 As expected, these upper-class patients reported to have felt nothing. With these observations, the commissioners argued that their hypothesis that imagination, not magnetism, generated the sensations, was reasonable. This, in turn, would suffice to contest the magnetic fluid's existence and efficacy.56

The imagination's connections to social pathologies and fears of instability have been widely discussed by historians. Indeed, the imagination brought social dimensions and concerns to the investigation of magnetism. However, these elements cannot be separated from the commissioners' epistemic work. The introduction of the imagination transferred 'class' as a brand-new demarcation criterion for magnetic bodies.⁵⁷ In this way, the commissioners' social mapping of magnetic bodies, via the imagination, became inscribed in the experimental protocol. It even explicated the distinction between animals and humans in this social map of magnetic bodies—animals were 'devoid of imagination'.⁵⁸

Furthermore, the additional (sub-)criteria of 'age' and 'gender' determined the specific sensibilities of lower-class individuals. For instance, two of the four subjects who remained insensible were 'little Claude Renard, a child of six', and 'Geneviève Leroux, a nine-year-old.'59 Because of their young age, their imagination was less likely to be incited by anticipation or interest to meet expectations. Likewise, female patients had more vivid and exalted imaginations and, as a result, manifested extreme forms of sensations, the bodily convulsions, more often than men. Lindsey Wilson has explained this assumption as an articulation of 'patriarchal' fears for the increasing cultural prominence of women in French society. Women too posed problems for the social order and hierarchy. Wilson, however, distinguished the social from the epistemological dimension, arguing that the commissions addressed public relations

between men and women to avoid 'the problem of epistemological certainty'. ⁶² Another way to approach this matter, which this article underlines, is that the commissioners brought questions of social and public order to their investigations in their attempts to define and demarcate animal magnetism. The 'boundary-work' of the investigations determined both epistemic and social demarcations simultaneously.

27 From this perspective, it can be argued that the commissioners' social mapping of magnetic bodies broadened magnetic therapy's resonance and meaning to new social and civil interpretations. 63 Moreover, in facilitating social delineations of the 'magnetic body', the causal hypothesis of the imagination also stabilised the commissioners' control over the sensations.

Refining the protocol: control over the magnetic imagination and the body

The previous section showed how the commissioners stabilised their understanding of the magnetic body by calling in the imagination as alternative causal hypothesis for the sensations some patients experienced, and how this transferred social demarcations into the experiments concerning magnetism. They asserted that the signs and gestures of the magnetic protocol, which sometimes included touching the patient, did not mediate the magnetic fluid but instead activated the imagination in some individuals, which in turn stimulated the body to produce sensations. However, in the absence of a controlled experimental manipulation of the imagination, causal attribution of the sensations to the latter could be exposed as hypothetical. The commissioner's initial conception of their testing protocol, after all, had focused on the production of sensations (or not). Since the results were non-uniform, and with the causal hypothesis of a productive imagination in place, the focus now shifted towards the self-production of sensations by the subjects' own bodies. This implied that the protocol's design required further refinement to secure controlled testing and to give credibility to the imagination as causal explanation.

The commissioners indicated that the protocol's efficacy depended on the sensory experience and perception of the test subject rather than on the specific signs and gestures of the magnetiser. The magnetiser's conduct did not mediate external powers (the magnetic fluid) from one body to another, but, instead, one witnessed the effect of the therapist's actions, which also often involved touching, triggering one's imagination. In their experiment, they invited the physician Jean-Baptiste Jumelin to imitate magnetisation on eight men and two women. Jumelin simply pointed his finger (from a distance) to one area of the subject's body and then moved it to another. Jumelin declared he had not received theoretical instruction or acquired practical knowledge from Mesmer or Deslon regarding the correct performance of the protocol.⁶⁴ Moreover, the commissioners emphasised that his conception of the protocol differed strongly from Mesmer's or Deslon's.

Yet, one woman felt sensations in those body parts that the physician claimed to magnetise, like her face, stomach and back.⁶⁵ The commissioners argued that the protocol was only efficient because the woman perceived it as magnetisation. The visual perception of Jumelin's gestures caused her imagination to generate sensations and mislead her into believing that these effects originated from magnetism.

One sees that here effects were produced and these effects were similar [...] But they were obtained by different procedures; it follows that the procedures do nothing. The method of Messrs. Mesmer and Deslon, and an opposite method gave the same result.⁶⁶

- As a result, the commissioners reasoned that by manipulating the patient's external senses—for instance, by using the blindfold—the practitioner could control the imagination. They decided to include the manipulation of the subject's gaze in their testing protocol and blindfolded the woman when they repeated the experiment. The elimination of her visual perception affected her sensations: she felt them in other areas than those magnetised by Jumelin. Once the blindfold was taken off, the woman's sensations corresponded again with the position of Jumelin's hand. The experiment with the blindfold demonstrated the correlation between visual perception and sensations, which indicated that gaze was a crucial intermediary between the imagination and the auto-production of sensations. Given this correlation, the commissioners concluded: 'It is natural to conclude that the imagination determines these sensations, true or false.'
- These specifications of the protocol thus enabled the controlled testing of the imagination and its contractual relation to the sensations. The commissioners conducted one last, decisive experiment in which they, firstly, included the imagination and excluded magnetisation. They did so by blindfolding the woman again and telling her that she was being magnetised. Jumelin had left the room, and no magnetisation took place. In this way, the woman's imagination was activated and led to the auto-production of sensations. Then, secondly, they excluded the powers of the imagination from the experiment by sending Jumelin back into the room after fifteen minutes, when the woman probably believed the procedure had already ended. Without informing the subject, Jumelin magnetised her again—in response, she felt nothing. 68
- In this way, the bodily sensations could be more credibly attributed to the imagination than to the magnetic fluid and could be categorised as auto-productions. The same procedure was repeated in many other experiments, in which the woman was replaced by other test subjects and the commissioners themselves even took over from Jumelin. They confirmed the validity and reliability of the results. ⁶⁹ In doing so, the commissioners undermined the magnetised body's relation to the natural world and secured the stability of their alternative interpretation attributing the cause of sensations to individual imagination.
- Nevertheless, the modified protocol also had important implications for the social relations in which the magnetised body was positioned. Since the existence of a magnetic fluid had been denied, the relation between therapist and patient radically changed. The patient's body was no longer the vessel of the fluid's natural powers, which the magnetiser mediated, but was instead subjected to the control of another human individual. The commissioners had demonstrated that manipulating one's gaze dictated the body's auto-production of sensations. Control over the imagination thus turned subjects into 'instruments' without self-control who acted against their own wills:
 - [...] [the effects] do not at all appear to depend on the power and the will of Man. That which we have learnt—or at least which was confirmed to us by evident demonstration by the examination of the techniques of magnetism—was that one

man can act on another, at any moment and almost at will, by affecting his imagination; [...] Man has the power to act on his like [...]. 70

As one historian pointed out, mesmerists' deprivation of individuals' 'self-possession' was deemed problematic because it 'infringed on social boundaries'. Important to note is that these problems of social decorum were inscribed in the commissioners' modified protocol and shaped the meaning of magnetic therapy. Social tensions, like those generated by the imagination, were transferred to the experiment with the commissioners' alternative interpretation of the imagination. In turn, the second round of experiments—which tested the imagination and not magnetism, as the commissioners themselves announced—translated these connotations to magnetic therapy.

In the view of the commissioners, the body's sensibility to 'magnetisation' now also signalled a lack of self-governance, and an increased susceptibility to be controlled by other individuals. From this perspective, the sensibility of magnetised bodies manifested the imagination's potential influences on society. As the commissioners reported, 'The imagination [...] seems to have a slow and gradual progression; [...] but, if in society it makes insensible progress, in the treatment by magnetism it manifests itself by striking phenomena.'72 The next section discusses how this visibility was magnified in the magnetic body, by means of the convulsions.

Magnetic therapy, 'crisis' and convulsive orders

The commissioners' experiments countered the epistemic challenge long posed by magnetism's 'incommunicability'. In the process, however, their redefinition of magnetic effects as produced by the imagination unwittingly produced new resources for the magnetisers as well. A medicine of the imagination was not per se illegitimate; on the contrary, the commissioners recognised that, strictly speaking, the imagination underwrote a healing process.⁷³ For instance, they indicated that Deslon's appropriation of the imagination supported the credibility of his therapy.

M. Deslon does not dissociate himself from these principles. He declared at the committee meeting held at M. Franklin's on 19 June that he believed that he was able to state that the imagination had the largest part in the effects of animal magnetism; he said that this new agent was perhaps only the imagination itself whose power is so great that it is little known. He assured us that he had always recognised this power in the treatment of his patients and he assured us also that several had been either cured or infinitely relieved. He observed to the Commissioners that imagination directed thus to the relief of suffering humanity would be of great benefit in the practice of medicine; and, persuaded by the reality of this power of the imagination, he invited them to study its progress and effects with him.⁷⁴

Therapeutic relief, not causes, determined the medical legitimacy of practices in contemporary medicine. From this perspective, the therapeutic quality of the sensations—the commissioners' selected effects—also required evaluation. The commissioners argued that magnetic therapies produced 'changes in the living body and derangements larger than those that have just been described', to which they now turned their attention: the convulsions.⁷⁵ Strikingly, they highlighted that mesmerists used an alternative and incorrect medical term, 'crisis', to describe the remarkable bodily phenomena the commissioners named 'convulsions'.⁷⁶

In the following sub-sections, I will show that the commissioners highlighted convulsions as a visible indicator that one's magnetic imagination endangered individual and public well-being. To do so, they undermined the credibility of mesmerists' usage of the Hippocratic term 'crisis', which referred to the moment in which Nature 'battled' disease in the body and determined the restoration of health, and developed clear-cut demarcations between the latter and the 'convulsions'. Firstly, they removed magnetic 'crises' from the natural order by classifying them, like the ordinary sensations, as auto-productions of the imagination, which increased the credibility of their own terminology. Secondly, they specified the bodily processes that preceded the bodily convulsions as harmful and dangerous irritations, categorising them as contradictive to nature and healing. Thirdly, they also ascribed these bodily irritations to the social body and argued that the downstream effects of the magnetic imagination included the introduction of contagion and political subversion.

Magnetic 'crises' or auto-produced 'convulsions'?

- 40 Eighteenth-century Hippocratic medicine approached 'crises' as battles between nature and disease which determined healing.⁷⁷ Accordingly, medical therapy was often understood as aiding nature in defeating the obstructions created by the ailment. Magnetisers, too, believed that their therapies accelerated and intensified the magnetic fluid's healing action at moments of natural crisis. In this way, magnetised bodies reached and completed these moments more quickly, after which the complete restoration of health followed. Sensations, pains, or bodily convulsions were frequently taken as visible symptoms of such a crisis, before feeling better. In other words, the crisis was the cornerstone of magnetic therapy because it announced the restoration of one's natural bodily order.
- Yet, mesmerists like Charles Deslon understood 'crisis' as a bodily condition that did not always manifest itself in visible symptoms. ⁷⁸ In fact, some magnetisers claimed that their unique dispositions or specific magnetic training enabled them to 'read' the interior bodily processes of the patient, which remained invisible to ordinary physicians. ⁷⁹ Like the sensations, magnetisers did not essentially tie the convulsions to the action of the magnetic fluid, but rather to the body's particular sensibility.
- Mesmerists thus attributed a large array of possible internal and external symptoms to 'crisis'. In contrast, the commissioners reduced 'crisis' to one specific type of observable symptoms, namely the convulsions, which increased their control over this magnetic phenomenon. After all, the convulsions, like the sensations, enabled the commissioners to experimentally demonstrate and manipulate their assumptions about magnetism. More specifically, the commissioners showed that their experimental protocols, which included the controlled manipulation of the imagination, produced convulsions as well. Following Deslon's advice, the commissioners selected subjects whose 'sensitivity to magnetism'—or, from the commissioners' perspective, their imaginations—had already been intensified in the treatments, which made them more susceptible to generating convulsions in the commissioners' experiments.⁸⁰ The results were identical to their previous experiments with the sensations: the imagination autoproduced convulsions, and magnetism lacked causal power and meaning.
- These experiments undermined the credibility of mesmerists' usage of the term 'crisis'. Experimental protocol demonstrated that magnetic 'crises' lacked a natural source,

whereas medical 'crises' were always defined by nature or, in mesmerists' understanding, by the magnetic fluid. The commissioners argued that 'this convulsive state is incorrectly called a crise in the theory of Animal Magnetism; according to this doctrine it is regarded as a salutary crisis of the kind that Nature herself provides [...].'81 To increase the credibility of the term 'convulsions' instead of 'crisis' to define these phenomena, the commissioners placed magnetism within a long-standing medical tradition that exposed miraculous or marvellous phenomena with a divine or preternatural appearance as the result of the incited imagination.⁸² More specifically, as extensively explained by historian Koen Vermeir, the commissioners emphasised the continuities with the religious Convulsionaries of the 17th and 18th century, for which they drew on Thouret's pamphlet against magnetism, the Recherches et doutes sur le magnétisme animal, that was published shortly before the reports.83 The 18th-century Convulsionaries of Saint-Médard, for instance, were now advanced as historical precedent of the magnetic convulsions. They were often believed to have prophetic or demonic powers, inspiring admiration or fear. However, their convulsions too, like magnetic convulsions, were exposed as impostures of the imagination.

Moreover, the commissioners also transposed the assumption that the magnetiser controlled the convulsions of his patients via their imaginations to the investigation. Patients' bodies were thus not governed by natural forces, but by other individuals, the commissioners concluded: 'All are subject to the magnetiser; even if they seem quite prostrated, his voice, a glance, a sign from him revives them. One cannot but recognise in these regular effects a great power that agitates the patients and overcomes them, and of which the magnetiser seems to be the seat.'84 In this respect, the convulsive body was a symptom of a subject with an imagination susceptible to manipulation and control.85 In the eyes of the commissioners, magnetic convulsions were thus dependent on the impressionability of the subject's imagination.

Undermining the credibility of salutary 'crises': harmful convulsions

Medical 'crises' were defined by natural causes in Hippocratic medicine, but also by the salutary character of their effects. As already mentioned, a medicine of the imagination used not to be illegitimate in the past, but was becoming so. In many instances, the imagination underwrote the healing process and benefited bodily health. In other words, categorising convulsions as 'crisis', albeit of an 'imaginative' category, remained legitimate if the magnetic convulsions brought relief to the suffering patient. However, the commissioners determined in contrast that the convulsions endangered health and in fact generated the opposite of natural 'crises': more suffering. ⁸⁶

These dangerous attacks can only be of use in medicine like poisons. [...] Far from repeating it, the wise doctor occupies himself with means of repairing the necessary harm that it has done [...]; since the state of crisis is harmful the habit can only be dangerous. [...] These effects are, therefore, a real ill and not a curative ill; they are an ill added to the malady, whatever that may be.⁸⁷

The commissioners constructed this contradiction between harmful magnetic convulsions and therapeutic crises by explaining what the convulsive state entailed and by specifying the bodily processes that preceded the manifestation of convulsive movements. Unlike 'crises', the convulsions signalled an overall distortion of the internal organisation and resulted from irritations inflicted by the incited imagination.

88 In magnetic therapies, the commissioners argued, the increased imagination of

patients irritated the organ these subjects believed to be magnetised. In the 18th century, physiological processes were often understood in terms of 'sympathy' reciprocally connecting the organs: a distortion in one part affected the whole. Likewise, the commissioners presented the diaphragm in particular as the nervous centre that communicated these irritations to the other organs. ⁸⁹ These irritations 'disturbed' the functioning of the organs and the internal order, of which the bodily convulsions were the external symptoms. ⁹⁰The commissioners thus defined the magnetic convulsions as antithetical to 'crises' since they undermined order and relief.

47 From this perspective, connotations of physical disorder were usually not inextricably tied to the imagination's illusionary powers in 18th-century medicine and physiology. 92 Instead, these connotations resulted from the commissioners' boundary-work, in which the credibility of 'convulsions' needed to be distinguished from the alternative and competing term 'crisis' advanced by mesmerists. In this way, the commissioners repositioned the magnetised body in 'crisis' as an indicator of disease instead of healing.

The convulsive body, contagion, and (socio-)political 'crises'

- The previous sections showed that the commissioners undermined the credibility of the mesmerist term 'crisis' by experimentally demonstrating that the convulsions were controlled by the imagination, not nature, and by emphasising the disturbances it produced. However, the experiment had tested convulsions in individual subjects, and, in this way, reflected the commissioners' own assumptions about the functioning of the magnetic imagination. Others nevertheless claimed that the collective set-up was one determining factor of the treatments' therapeutic success. In particular, they believed collectiveness intensified the circulation of the magnetic fluid amongst the patients gathered around the *baquet*.⁹³ The 'crisis' of one body affected the state of other bodies and vice versa.⁹⁴ In this way, collectiveness accelerated 'crises' and healing.
- The remarkable bodily phenomena that patients experienced in the collective therapies were not 'crises', according to the commissioners, but were also—as in the experiments on individuals—'convulsions'. The circulation of perceived 'crises' thus also required an alternative interpretation. In first instance, the commissioners transposed their experimental protocols, which were originally designed to manipulate the imagination of individual subjects, to a collective setting. They argued that, after having 'seen what it did in the experiments of the commissioners on isolated subjects; one can imagine its effects multiplied on the patients gathered together at the public treatment.'95 According to the commissioners, the visual perception of other convulsive patients agitated one's own imagination, which in turn led the body to the imitation of convulsions. The patient's experience of the room's atmosphere, with its closed windows, dimmed lights and soft music, aroused the imagination too.⁹⁶ The collective setting thus generated a magnified version of the commissioners' own protocol.
- In this way, the commissioners introduced the contagion or 'imitation' of convulsions as the downstream effect of the incited imagination, in analogy with the internal communication of irritations.⁹⁷ The convulsive state of the individual body indicated the potential infection of all patients present.

Strikingly, the commissioners highlighted that contagion was uncontainable within the boundaries of the therapeutic setting and endangered society. The patients left the treatment with agitated imaginations and bodily distortions that continued to facilitate convulsive movements. For instance, when the commissioners incited impressionable individuals' imagination in the experimental setting, their bodies relapsed to the convulsive state instead of producing milder sensations. The therapy thus permanently altered the body and made the convulsions a recurring phenomenon. However, this also implied that the convulsions could contaminate bodies outside the therapeutic setting.

The 17th- and 18th-century Convulsionaries offered alarming insights about the epidemic proportions that the convulsions could reach and the commissioners referred to Thouret's *Recherches et doutes* and the Jansenist physician Philippe Hecquet's *Le naturalisme des convulsions* to suggest their dangerous communicative nature. For instance, the Tremblers of the Cévennes case illustrated how an overheated imagination infected entire villages with convulsions. ¹⁰⁰ Similar to magnetic therapy, the collectiveness of the inhabitants of Cévenne stimulated the spread of convulsions and obstructed efforts to contain them. Isolation and separation from the group, in contrast, calmed the Convulsionaries' irritated constitutions. ¹⁰¹ In this context, the commissioners predicted the intentional contamination of the entire social body if magnetisers continued to practise their 'art of provoking convulsions.' They concluded:

That Art is dangerous which disturbs the functions of the animal economy, pushed Nature aside and multiplies the victims of these derangements. [...] But if this malady is contagious, as one might suspect, the practice of provoking nervous convulsions and exciting them in public during the treatments is a means of spreading them in the large towns [...]. 102

These concerns carried an implicit political dimension. The commissioners hinted at the convulsive state's association with unruly behaviour and disruptions of the social and public order. Revolts and epidemic convulsions shared the same pathology: the imagination irritated the body and produced convulsive or subversive conduct, contaminating other individuals. In this line of argument, the commissioners capitalised on existing late eighteenth-century anxieties, particularly among the upper class, for anything that might inflame collective passions and create politically subversive behaviour. 103 In this way, the 'convulsions' were increasingly associated with political convictions in addition to bodily symptoms. Moreover, the political impact of the convulsions was well-known to the commissions' contemporaries: Convulsionaries had often inspired followers to revolt against the established authorities, who responded to the threat with armed retribution. 104 Likewise, the commissioners implicitly warned magnetisers and patients of the violent consequences of bringing the socio-political order into a convulsive state. 105

The investigations thus transferred politically charged connotations to 'crisis' via the contagious convulsions. Moreover, the commissioners radically changed mesmerists' initial interpretation of 'crisis' by advancing the 'convulsions' as a more credible description of 'magnetic' bodily phenomena. The commissioners characterised the convulsions of the magnetised body as a visible indicator that the imagination—and thus the magnetisers who manipulated it—endangered public well-being and the harmonious order of the socio-political body. In this respect, the investigations' redefinition of magnetic convulsions and 'crises' reinvigorated the 'political' interpretations of magnetic therapy circulating in the early 1780s. ¹⁰⁶ Here too, the

'politicisation' of 'crises' was determined simultaneously with the epistemic demarcations of the term. ¹⁰⁷

Conclusions

The 1784 investigations affected the changing conceptions of animal magnetism in the late eighteenth century. This article has argued that these shifting interpretations should not be understood as the downstream effects of the therapy's denunciation. Instead, the commissioners' investigations progressively shifted the definitions of what magnetic therapy was, how it could be tested, and how it could be distinguished from the products of the imagination. In particular, the reports reflect how the investigations gradually changed the position of the magnetic body in relation to the natural, social, and political order—issues that informed the dominant themes and concerns of the subsequent debate about the integrity of the conducted experiments.

We first discussed how the commissioners' experimental protocol transferred their assumptions and presuppositions about 'animal magnetism' to the investigations. They presumed the body to have an exclusively sensible relation to the magnetic fluid: the magnetised body's sensibility was the visible indicator of the fluid's existence and activity. Also inscribed in experimental protocol was the specific delineation of certain procedures believed to activate the fluid and the production of sensations. Many mesmerists, in contrast, considered the sensations as potential symptoms of the magnetic fluid's action on the body, but they did not privilege them as secure evidence of the magnetic fluid's existence. The crucial role of the sensations in defining 'animal magnetism' was thus in fact an appropriation and redefinition of mesmerist understandings of magnetic cures, now advanced by the commissioners.

Secondly, the commissioners called in the imagination as alternative causal hypothesis for the sensations. Not only did this secure their conception of 'magnetism', it also brought distinct social criteria to demarcate magnetised bodies with a particular sensitivity for the imagination—the lower class in particular. In tackling the epistemic problem of magnetism, the investigations thus simultaneously inscribed social contests with high political stakes to the magnetised body.

Thirdly, this became even more prominent in the modifications made to the protocol's design in the light of a controlled manipulation of the imagination. On the one hand, the bodily sensations could now be more credibly attributed to the imagination. In this way, the investigations undermined the harmonious connection between the magnetised body and the natural world that magnetic therapy claimed to establish. On the other hand, lack of self-governance was also inscribed in this experimental protocol and problematised the social relation between patient and magnetiser. The magnetised body signified the imagination's potential to be controlled, against one's own will, by another individual.

Lastly, the commissioners evaluated what mesmerists called 'crises' to determine if the therapy provided relief and if the magnetic imagination was medically legitimate. The commissioners contested the mesmerist use of the term 'crisis' to describe the remarkable bodily phenomena of magnetic practices, which the commissioners alternatively called 'convulsions'. In drawing credible boundaries between 'crises' and 'convulsions', the commissioners turned the convulsive body into a visible indicator that the imagination endangered individual health, as well as the social and public

order. The magnetic body, the commissioners argued, endangered social and political harmony through ailment and distortion. In this respect, it can be argued that a 'political' semantic shift of the term 'crisis', due to its association with the convulsive body, started to take shape in the contest over credibility that the 1784 investigations encompassed.

From this perspective, we can conclude that the 1784 investigations brought many important (re-)interpretations of animal magnetism. For instance, the 'politicisation' of mesmerism was inscribed in and reinvigorated by the commissioners' experiments. The re-interpretation resulted from the shifting positions of the magnetised body in relation to natural, social and political order, which shaped the stakes of the subsequent debate. How the public debate further explored and developed these conceptions of the body and magnetism is material for a different article.

NOTES

- 1. The 17th and 18th centuries were characterised by numerous scientific controversies and credibility contests revolving around the demarcation between 'orthodox' and 'heterodox' science and in which scientific authority was negotiated. See for instance the cases of medical electricity in François ZANETTI, 'Contretemps et contrepoints au mesmérisme. Savoirs et acteurs des marges à la fin de l'Ancien Régime', Annales historiques de la Révolution française, 391 (nr. 1), 2018, p. 57-80; ID., 'Magnétisme animal et électricité medicale au dix-huitième siècle', in Bruno Belhoste and Nicole Edelman (eds.), Mesmer et mesmérismes: le magnétisme animal en contexte, Paris, Omniscience, 2015, p. 103-118; on the divining rod, see Koen VERMEIR, 'Circulating knowledge or superstition?: the Dutch debate on divination', in Sven Dupré and Christoph Lüthy (eds.), Silent messengers. The circulation of material objects of knowledge in the early modern Low Countries, Münster, LIT Verlag, 2011, p. 293-328; on the Leyden jar, see Jessica RISKIN, Science in the age of sensibility. The sentimental empiricists of the French Enlightenment, Chicago, University of Chicago Press, 2002, p. 69-104; for 'secret' (practical) knowledge, see Elaine Leong and Alisha RANKIN (eds.), Secrets and knowledge in medicine and science, 1500-1800, London, Ashgate, 2011.
- 2. See L.W.B. BROCKLISS, 'Before the clinic: French medical teaching in the eighteenth century', in Caroline Hannaway and Anne Fowler la Berge (eds.), Constructing Paris medicine, Amsterdam, Rodopi, 1998, p. 71-115; Laurence BROCKLISS and Colin JONES, The medical world of early modern France, Oxford, Clarendon Press, 1997, p. 730-779; and Matthew RAMSEY, 'Property rights and the right to health: the regulation of secret remedies in France, 1789-1815', in W.F. Bynum and Roy Porter (eds.), Medical fringe and medical orthodoxy, London, Routledge, 1987, p. 79-105.
- 3. Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited , p. 189.
- **4.** Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée. Enquête sur les enquêtes officielles de 1784 sur le magnétisme animal', *Revue d'histoire des sciences humaines*, 39, 2021, p. 208.
- 5. Douglas LANSKA and Joseph LANSKA, 'Franz Anton Mesmer and the rise and fall of Animal Magnetism: dramatic cures, controversy, and ultimately a triumph for the scientific method', in Harry Whitaker, C.U.M. Smith and Stanley Finger (eds.), *Brain, Mind and Medicine: Essays in Eighteenth-Century Neuroscience*, New York, Springer, 2007, p. 301-320; Claude-Anne LOPEZ,

'Franklin and Mesmer: an encounter', Yale Journal of Biology and Medicine, 66, 1994, p. 325-331; John F. KIHLSTROM, 'Mesmer, the Franklin commission, and hypnosis: a counterfactual essay', The International Journal of Clinical and Experimental Hypnosis, 50 (nr. 4), 2002, p. 407-419; Ted J. KAPTCHUK, 'Intentional ignorance: a history of blind assessment and placebo controls in medicine', Bulletin of the History of Medicine, 72 (nr. 3), 1998, p. 389-433.

- 6. Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited.
- 7. Jessica RISKIN, Science in the age of sensibility..., op. cit., p. 189-226
- 8. See also Simon SCHAFFER, 'Self-evidence', Critical Inquiry 18 (nr. 2), 1992, p. 327-362
- 9. François AZOUVI, 'Sens et fonction épistémologiques de la critique du magnétisme animal par les Académies', Revue d'histoire des sciences, 29 (nr. 2), 1976, p. 123-142. In contrast with historians like Adam Crabtree, Jean-Pierre Peter, Franklin Rausky and Frank Pattie, Azouvi argued that the commissions, and not Mesmer, were the 'discoverers' of the unconscious. See Adam Crabtree, '1784: The marquis de Puységur and the psychological turn in the west', Journal for the History of Behavioural Science, 55, 2019, p. 199-215 and Jean-Pierre PETER, 'De Mesmer à Puységur. Magnétisme animal et transe somnambulique, à l'origine des thérapies psychiques', Revue d'histoire du XIX^e siècle, 38, 2009, p. 19-40; Franklin RAUSKY, Mesmer ou la révolution thérapeutique, Paris, Payot, 1977; and Frank Pattie, Mesmer and animal magnetism: a chapter in the history of medicine, New York, Edmonston, 1994.
- **10.** Koen VERMEIR, 'Guérir ceux qui croient', in Bruno Belhoste and Nicole Edelman (eds.), Mesmer et mesmérismes: le magnétisme animal en contexte, Paris, Omniscience, 2015, p. 119-146.
- 11. See the recent literature on the pluralist nature of the mesmerist movement, like David ARMANDO and Bruno BELHOSTE, 'Le mesmérisme entre la fin de l'Ancien Régime et la Révolution : dynamiques sociales et enjeux politiques', Annales historiques de la Révolution française, 391 (nr. 1), 2018, p. 3-26; Bruno BELHOSTE, 'Franz Anton Mesmer: magnétiseur, moraliste et républicain', ibid., p. 27-56; Francisco Javier solans, 'Le mesmérisme à la rencontre de la prophétie. Le cercle de la duchesse de Bourbon', ibid., p. 153-175; and Bruno BELHOSTE and Nicole EDELMAN (eds.), Mesmer et mesmérismes: le magnétisme animal en contexte, Paris, Omniscience, 2015; as well as older historiography like Agnès SPIQUEL, 'Mesmer et l'influence', Romantisme, 98, 1997, p. 33-40; François AZOUVI, 'L'historicité du mesmérisme', in Heinz Schott (ed.), Franz Anton Mesmer und die Geschichte des Mesmerismus, Meersburg, Steiner, 1985, p. 144-151; and François AZOUVI, 'Magnétisme animal. La sensation infinie', Dix-huitième siècle, 23, 1991, p. 107-118
- 12. The term 'boundary-work' is here used to describe the interactions and contestations in which the boundaries of the 'animal magnetic' were negotiated, drawn and re-drawn, whereas Thomas Gieryn's 'boundary-work' refers more generally to the demarcation of 'science' from 'non-science'. See Thomas GIERYN, 'Boundary-work and the demarcation of science from non-science: strains and interests in professional ideologies of scientists', *American Sociological Review*, 48 (nr. 6), 1983, p. 781-798.
- 13. This article will predominantly use the report of the Académie des Sciences and Faculté de médecine commission since this was the most influential one. The proceedings and conclusions of the Société royale commission were relatively similar, but were more focused on testing the utility of magnetic therapy rather than its causes. See Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited.
- 14. Franz Anton Mesmer, *Précis historique des faits relatifs au magnétisme animal jusqu'en avril 1781* [1781], ed. by Robert Amadou, Paris, Payot, 1971, p. 102. The idea of an unwritten doctrine is an ancient topos in the history of science and philosophy. For the early modern period, see for instance the influential literature on secret practical knowledge, like Elaine LEONG and Alisha RANKIN, *Secrets and knowledge*, *op. cit.*; Koen VERMEIR and Dániel MARGÓCSY, 'States of secrecy: an introduction', *The British Journal for the History of Science*, 45 (nr. 2), 2012, 153-164; and William

EAMON, Science and the secrets of nature: books of secrets in medieval and early modern culture, Princeton, Princeton University Press, 1994.

- **15.** For the importance of publications as means of self-authorisation, see Marie-Claude FELTON, 'The case of self-publishing science amateurs and their quest for authority in 18th-century Paris', *Mémoires du Livre / Studies in Book Culture*, 6 (nr. 1), 2014, p. 1-26; and Simon SCHAFFER, 'Late Enlightenment crises of facts', art. cited, p. 126.
- 16. See Franz Anton MESMER, Précis historique du mesmérisme revisitée..., op. cit., p. 111.
- 17. E.g. Charles DESLON, Observations sur le magnétisme animal, Paris, Didot, 1780; et Antoine (Court) DE GÉBELIN, Lettre de l'auteur de monde primitif à messieurs ses souscripteurs sur le magnétisme animal, Paris, Valleyre l'aîné, 1783.
- **18.** See Deslon's proposals (on behalf of Mesmer) to the medical faculty from 18 September 1780 in Charles DESLON, *Observations sur le magnétisme animal*, *op. cit.*, p. 138-139.
- 19. For instance, Galart de Montjoie wrote several letters in which he speculated on the theory of animal magnetism and the conditions for its therapeutic application. See e.g. Galart DE MONTJOIE, Journal de Paris, 325, 1783, p. 1335. Galart's letters are republished in his Essai sur la découverte du magnétisme animal (Philadelphia 1783). The divided opinions on magnetism are also mentioned in Jean Sylvain BAILLY et al., Exposé des expériences qui ont été faites pour l'examen du magnétisme animal, Paris, Chez Moutard, 1784, p. 2-3.
- 20. See the debate in the *Journal de Paris* of 1782. Mesmer's 'theory' was presumably published (without Mesmer's consent) in the *Aphorismes* of 1785, which contained student notes of the lessons provided at the Société de l'Harmonie Universelle. Mesmer started instructing and training 'magnetisers' here in 1783, although many Parisian therapists also claimed to be able to magnetise despite their lack of instruction.
- **21.** Parts of the correspondence between Mesmer and Deslon on this matter is included in Robert AMADOU'S edition, *Le magnétisme animal*, Paris, Payot, 1971, p. 229-233.
- 22. The doctor-regents asked the assistance of these physicists most likely to strengthen their position in relation to the Société royale, the faculty's nemesis in the battle for medical authority. See Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited, p. 188-189.
- 23. The doctor-regents asked the assistance of these physicists most likely to strengthen their position in relation to the Société royale, the faculty's nemesis in the battle for medical authority. See Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited, p. 188-189.
- 24. Simon Schaffer, 'Late Enlightenment crises of facts', art. cited., p. 121-122.
- **25.** Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited., p. 188; as well as Laurence Brockliss and Colin Jones, *The medical world, op. cit.*, p. 767.
- **26.** It must be noted that not all (institutionalised) medical schools in France opposed mesmerism. For instance, many physicians of the influential Montpellier medical school, which existed in concurrence with the Parisian medical faculty, were in favour of the therapy: see Elizabeth WILLIAMS, *The physical and the moral: anthropology, physiology, and philosophical medicine in France*, 1750-1850, Cambridge, Cambridge University Press, 1994.
- **27.** Simon SCHAFFER, 'Late Enlightenment crises of facts', art. cited, p. 125; see also Colin JONES, 'The great chain of buying: medical advertisement, the Bourgeois public sphere, and the origins of the French Revolution', *The American Historical Review*, 101 (nr. 1), 1996, p. 13-40; and Mary TERRALL, 'Public science in the Enlightenment', *Modern Intellectual History*, 2, 2005, p. 265-276.
- 28. See also the extensive descriptions of the proceedings by Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...,' art. cited; Frank PATTIE, Mesmer and animal magnetism, op. cited, p. 142-158; and Charles GILLISPIE, Science and polity in France at the end of the Old Regime, Princeton, Princeton University Press, 1980, p. 279-283.

- **29.** Rapport des commissaires chargés par le Roi de l'examen du magnétisme animal, Paris, L'Imprimerie royale, 1784, p. 3.
- **30.** Ibid., p. 4.
- **31.** *Ibid.*, p. 3-5.
- **32.** Like Paul Augustin Olivier MAHON, Examen sérieux et impartial du magnétisme animal, Paris, Royez, 1784. The commissioners were interested in the existence of a cause, and not in practical utility—a question of physics rather than of medicine. See Bruno BELHOSTE, 'La condamnation du mesmérisme revisitée...', art. cited, p. 194.
- **33.** English translation cited from I.M.L. DONALDSON (ed.), *The reports of the royal commission of 1784 on Mesmer's system of animal magnetism and other contemporary documents*, electronic publication, https://www.rcpe.ac.uk/sites/default/files/files/the_royal_commission_on_animal_-
- _translated_by_iml_donaldson_1.pdf, p. 43; and Rapport des commissaires..., op. cit., p. 8.
- 34. Ibid., p. 5.
- 35. Ibid., p. 8.
- **36.** See also Isabelle STENGERS, 'The doctor and the charlatan', *Cultural Studies Review*, 9 (nr. 2), 2003, p. 14-16, for the 'inexplicability' of cures.
- 37. Rapport des commissaires..., op. cit., p. 12.
- **38.** *Ibid.*, p. 15; and I.M.L. DONALDSON, The reports of the royal commission..., p. 46.
- 39. Ibid., p. 44; Rapport des commissaires..., op. cit., p. 10.
- **40.** In addition to sensations, they also identified convulsions as such short-term and direct effects: I.M.L. Donaldson, *The reports of the royal commission..., op. cit.*, p. 45-46; and *Rapport des commissaires...*, op. cit., p. 11-15.
- **41.** Jessica RISKIN, *Science in the age of sensibility...*, *op. cit.*, p. 189-226; François AZOUVI, 'Magnétisme animal...', art. cited, p. 107-118.
- **42.** Franz Anton MESMER, Précis historique du mesmérisme revisitée..., op. cit., p. 103.
- **43.** See for instance Charles DESLON, Supplément aux deux rapports de MM. Les Commissaires, Paris, Gueffier, 1784, p. 1-7
- 44. See also Koen VERMEIR, 'Guérir ceux qui croient,' art. cited. The author contested Riskin's claim that mesmerism was an 'extreme version' of mesmerists' and commissioners' shared sensibilist epistemology: adversaries interpreted and presented it as such, but others refuted a too pronounced focus on sensations and sensibilities. François AZOUVI ('Sens et fonction épistémologiques...,' art. cited) also attributed a prominent role to the sensations in magnetic therapy, but emphasised that the commissioners rather than Mesmer defined them as 'non-physical'.
- **45.** Rapport, op. cit., p. 15
- **46.** I.M.L. DONALDSON, *The reports of the royal commission...*, op. cit., p. 47; Rapport, op. cit., p. 15. Simon Schaffer sees this shift from public performances to the privacy of the experimental trial as means to 'stabilise the evidential context'. In doing so, the commissioners could place the focus on the specific gestures of the experimenter-magnetiser. *Self-evidence*, p. 330-334.
- 47. Rapport des commissaires..., op. cit., p. 5.
- 48. See the discussion between Deslon and Mesmer in the Journal de Paris, 1782-1783.
- 49. Rapport des commissaires..., op. cit., p. 21.
- 50. As extensively discussed by Koen Vermeir, the commissioners wielded an 'unhistorical' notion of the imagination that differed strongly from contemporary understandings. For instance, whereas the imagination was usually conceptualised as a physical fluid, the commissioners advanced a non-physical understanding of its workings. See Koen VERMEIR, 'Guérir ceux qui croient', art. cited, as well as Jessica RISKIN, Science in the age of sensibility..., op. cit. For further literature on the imagination in the early modern period, see Koen VERMEIR, 'The physical prophet and the power of the imagination, part 1', Studies in History and Philosophy of Biological and

Biomedical Sciences, 35 (nr. 4), 2004; Lorraine DASTON and Katharine PARK, Wonders and the order of Nature 1150-1750, California, Zone Books, 2001; and Jan GOLDSTEIN, The post-revolutionary self: politics and psyche in France, 1750-1850, Harvard, Harvard University Press, 2005.

- **51.** Rapport des commissaires..., op. cit., p. 18; Lorraine Daston also explained this in terms of the commissioners' 'healthy imagination', governed and managed by reason, in contrast to the test subjects' 'diseased imagination', which caused a lack of self-mastery and self-control ('Fear and loathing of the imagination in science', *Daedalus*, 127 [nr. 1], 1998, p. 73-95). See also Jan GOLDSTEIN on dangerous environments that caused the imagination to go astray in 'Enthusiasm or imagination? Eighteenth-century smear words in comparative national context', *Huntington Library Quarterly*, 60 (nrs. 1-2), 1997, p. 29-49.
- 52. Rapport des commissaires..., op. cit., p. 26-28.
- 53. Ibid., p. 44.
- **54.** See for instance Lorraine DASTON, 'Fear and loathing', art. cited, p. 78-79.
- **55.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 49; Rapport des commissaires..., op. cit., p. 21.
- 56. Ibid., p. 27.
- **57.** *Ibid.*, p. 20-21.
- **58.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit. p. 81; Jean Sylvain BAILLY et al., Exposé des expériences..., op. cit., p. 10.
- **59.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 48-49; Rapport des commissaires..., op. cit., p. 19.
- **60.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 51; Rapport des commissaires..., op. cit., p. 26.
- **61.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 43; Rapport des commissaires..., op. cit., p. 7. Also in Jean Sylvain BAILLY, Rapport secret présenté au ministre et signé par la commission précédente, n.p., 1784, p. 3-4.
- **62.** Lindsey WILSON, Women and medicine in the French Enlightenment: the debate over Maladies des femmes, Baltimore, The John Hopkins University Press, 1992, p. 107 and 123.
- **63.** For the political connotations of magnetic therapy circulating before the 1784 investigations, see Bruno Belhoste, 'Franz Anton Mesmer...,' art. cited.
- **64.** Rapport des commissaires..., op. cit., p. 27.
- **65.** *Ibid.*, p. 28.
- **66.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 53; Rapport des commissaires..., op. cit., p. 29.
- **67.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 53; Rapport des commissaires..., op. cit., p. 29.
- **68.** Rapport des commissaires..., op. cit., p. 29.
- **69.** Rapport des commissaires..., op. cit., p. 33-34; see also Jean Sylvain BAILLY et al., Exposé des expériences..., op. cit., p. 9.
- **70.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 82.; Jean Sylvain BAILLY et al., Exposé des expériences..., op. cit., p. 14-15.
- 71. Simon Schaffer, 'Self-evidence', art. cited, p. 351.
- 72. Jean Sylvain BAILLY et al., Exposé des expériences..., op. cit., p. 13.
- 73. Rapport des commissaires..., op. cit., p. 61. See also Jean Sylvain Bailly et al., Exposé des expériences..., op. cit., p. 13. The link between magnetic cures and the imagination was in actual fact quite often recognised and incorporated, see Koen Vermeir, 'The physical prophet...', art. cited
- **74.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 65-66; Rapport des commissaires..., op. cit., p. 60.

- **75.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 55; Rapport des commissaires..., op. cit., p. 35.
- **76.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 43; Rapport des commissaires..., op. cit., p. 7.
- 77. Théophile DE BORDEU, 'Crise', in Denis Diderot, Jean le Rond d'Alembert (eds.), *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers*, vol. IV, 1754, p. 471b.
- **78.** Charles Deslon, Observations sur les deux rapports de MM. les Commissaires, Paris, Clousier, 1784, p. 9, 22; Jean-Baptiste Bonnefoy, Analyse raisonnée des rapports des commissaires, Lyon, Prault, 1784, p. 78.
- **79.** E.g. Antoine ESMONIN DAMPIERRE, Réflexions impartiales sur le magnétisme animal, Paris, Périsse le jeune, 1784, p. 7. In 1783, Mesmer started training and instructing students in the Société de l'Harmonie Universelle.
- **80.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 55; Rapport des commissaires..., op. cit., p. 35.
- **81.** I.M.L. Donaldson, The reports of the royal commission..., op. cit., p. 43; Rapport des commissaires..., op. cit., p. 7.
- **82.** E.g. Michel Augustin Thouret, *Recherches et doutes sur le magnétisme animal*, Paris, Prault, 1784, p. xi. See also Koen VERMEIR, 'Guérir ceux qui croient', art. cited, p. 16; ID., 'The physical prophet...', art. Cited; and Jan GOLDSTEIN, 'Enthusiasm or imagination?', art. Cited, on these 18th-century Convulsionaries and the imagination.
- 83. Rapport des commissaires..., op. cit., p. 58.
- **84.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 43; Rapport des commissaires..., op. cit., p. 7.
- 85. See in particular Jean Sylvain BAILLY, Rapport secret..., op. cit.
- **86.** In the 'Secret report', Bailly advanced magnetic 'crises' as dangerous to the moral order, especially women's: Jean Sylvain BAILLY, Rapport secret..., op. cit.
- **87.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 66; Rapport des commissaires..., op. cit., p. 61-62.
- 88. Rapport des commissaires..., op. cit., p. 48-49. Diseases, both physical and moral/psychological, were linked to organic disturbances. See Timo KAITARO, 'Emotional pathologies and reason in French medical Enlightenment', in Henrik Lagerlund and Mikko Yrjönsuuri (eds.), Forming the mind: essays on the internal senses and the mind/body problem from Avicenna to the medical Enlightenment, Dordrecht, Springer, 2007, p. 319; and Anne C. VILA, Enlightenment and pathology, Baltimore, The John Hopkins University Press, p. 72.
- **89.** Rapport des commissaires..., op. cit., p. 50. The diaphragm was considered to be the centre responsible for emotional sensibility in the 18th century, especially in the Montpellier medical school which was extremely influential in shaping 18th-century Hippocratic understandings of the human body. See Timo KAITARO, 'Emotional pathologies', art. cited, p. 312-313.
- 90. Rapport des commissaires..., op. cit., p. 52.
- **91.** Ibid., p. 62.
- **92.** Unlike what François AZOUVI argued in 'Sens et fonction épistémologiques...', art. cited, p. 138-140.
- **93.** E.g. Joseph Michel Antoine SERVAN, Doutes d'un provincial, proposés à messiers le médecins-commissaires chargés par le roi de l'examen du magnétisme animal, Lyon, Prault, 1784, p. 19; or Charles DESLON, Observations sur les deux rapports, op. cit., p. 19.
- 94. Rapport des commissaires..., op. cit., p. 19.
- **95.** I.M.L. DONALDSON, The reports of the royal commission..., op. cit., p. 63; Rapport des commissaires..., op. cit., p. 63.
- 96. Rapport des commissaires..., op. cit., p. 53.

- **97.** Rapport des commissaires..., op. cit., p. 52-53. The analogy is not made explicit; yet, the report first details the processes of irritation in the individual body and then immediately turns to how convulsions are communicated and affect the nerves in collective treatments.
- 98. Ibid., p. 63. See also Jean Sylvain BAILLY, Rapport secret..., op. cit., p. 9.
- 99. Rapport des commissaires..., op. cit., p. 57.
- 100. Ibid., p. 53-54; see also Koen VERMEIR, 'Guérir ceux qui croient', art. cited, p. 16.
- 101. Rapport des commissaires..., op. cit., p. 56.
- **102.** I.M.L. Donaldson, *The reports of the royal commission...*, op. cit., p. 67; Rapport des commissaires..., op. cit., p. 63.
- **103.** Harrington argues that bear baiting and public executions were for instance restricted out of fear that these large gatherings of people may 'inflame' each other into subversive behaviour: Anne HARRINGTON, *The cure within: a history of mind-body medicine*, New York, Norton & Company, 2008, p. 50. See also Jessica RISKIN, *Science in the age of sensibility...*, op. cit., p. 192.
- **104.** Koen VERMEIR, 'The physical prophet...', art. cited, p. 5.
- 105. Rapport des commissaires...,, op. cit., p. 53-54.
- **106.** See David ARMANDO, 'Crises magnétiques, convulsions politiques: les mesméristes à l'Assemblée Constituante', *Annales historiques de la Révolution française*, 391, 2018, p. 147-152; Colin JONES, 'The great chain of buying...,' art. cited, p. 38-39; and Bruno BELHOSTE, 'Franz Anton Mesmer...,' art. cited, p. 27-56.
- 107. In contrast with, for instance, Colin JONES, 'The great chain of buying...,' art. cited, p. 34 and 38-39, who argued that the politicisation of health had priority over the scientific status of orthodox medical knowledge.

ABSTRACTS

An older historiography viewed the 1784 investigations of 'animal magnetism' as the scientific triumph of the experimental method. This article re-evaluates the significance and impact of the investigations and argues that the commissioners altered the meaning of 'animal magnetism' for their own purposes and interests. More specifically, I will show how the commissioners' experiments translated specific background assumptions about the meaning, definition and therapeutic function of animal magnetism, and how these interpretations were constantly reconsidered and consolidated. Firstly, I will discuss how the commissioners prioritised the sensations as the visible effects of magnetism. Secondly, will I show how the experiments brought social demarcation criteria to subjects' sensibilities. Thirdly, I will show how the commissioners refined the design of their protocols to secure the credibility of their hypothesis that the imagination produced magnetic sensations. Lastly, I will explain how they re-defined magnetic 'crises' as convulsions to undermine the therapy's legitimacy.

Une historiographie plus ancienne a appréhendé les enquêtes de 1784 sur le « magnétisme animal » comme le triomphe scientifique de la méthode expérimentale. Cet article va réévaluer la portée et l'impact de ces enquêtes et défendre l'idée que les membres des commissions ont altéré le sens de « magnétisme animal » pour convenir à leurs propres objectifs et intérêts. Plus spécifiquement, je vais montrer comment leurs expériences ont traduit leurs interprétations propres du sens, de la définition et de la fonction thérapeutique du magnétisme animal, et

comment ces interprétations étaient constamment réévaluées et redéfinies. En premier lieu, je vais discuter de la manière dont les membres des commissions ont fait des sensations les effets visibles principaux du magnétisme. En deuxième lieu, je vais montrer comment les expériences ont appliqué des critères de démarcation sociale aux sensibilités des sujets. En troisième lieu, je vais présenter comment ils ont amélioré la définition de leurs protocoles pour s'assurer de la crédibilité de leur hypothèse selon laquelle l'imagination produisait les sensations magnétiques. Enfin, je vais expliquer comment ils ont redéfini en convulsions les « crises » magnétiques, afin de saper la légitimité de la thérapie.

INDEX

 $\textbf{Mots-cl\'es:} \ \textbf{Magn\'etisme} \ \textbf{animal, Exp\'erimentation, D\'efinition et formalisation, Controverse,}$

Crédibilité

Keywords: Animal magnetism, Experimentation, Boundary work, Controversy, Credibility

AUTHOR

CHLOÉ CONICKX

Ghent University