

Condorcet and mesmerism: A record in the history of scepticism

by Normand Baillargeon
Professor at the University of Quebec in Montreal (UQAM)

When Anglophones wish to say they are fascinated or hypnotised, whether in the strict sense or metaphorically, they sometimes use the verb *mesmerise*. Some are probably unaware that it derives from the name of an Austrian doctor, Franz Anton Mesmer (1734–1815). This name is associated with a famous episode in the history of medicine that unfolded in Paris and which, as we will see, is of immense interest both in the history of medicine and that of scepticism. It was against this very episode that Condorcet would react in the text reproduced below.¹



Figure 1: Franz Anton Mesmer (1734–1815) (WikiCommons image).

1. "Sur les raisons qui m'ont empêché jusqu'ici de croire au magnétisme animal" ("Reasons that have hitherto prevented me from believing in Animal Magnetism"). Condorcet's text is reproduced, unannotated, in the appendix to Darnton R. (1970 & 1968), *Mesmerism and the End of the Enlightenment in France*, Harvard University Press, Boston, 1968. My transcription, presented in the appendix to this article, differs slightly from this text.

MESMER IN PARIS: FROM TRIUMPH TO FALL FROM GRACE

Who was Mesmer? And to what does he owe the fame – and scandal – with which his name remains associated?

Franz Anton Mesmer² studied medicine at the University of Vienna. At the end of his studies, in 1766, he wrote a thesis which was, even at the time, controversial to the point of ridicule, for it concerned the influence of the planets on the body.

In 1744, he met a Jesuit professor of astronomy at the University of Vienna, Father Hell, who offered magnetic therapy involving the application of metal plates of his own invention to his patients' naked bodies. Mesmer seized on this idea and practice, using it as a base to develop his own theory and therapy of animal magnetism – the term "animal" here refers to the Latin *anima*, meaning "breath, vital force, spirit".

In this 18th century that had discovered electricity with fascination, acknowledged the existence of invisible gravity, marvelled at magnetism, and enthused over the practical applications promised or already achieved by science – for example, that of flying – a promise made good by hot-air balloons – Mesmer defended a thesis which, thanks to previous discoveries, appeared credible in the eyes of some. This thesis holds that the entire universe, including the human body, is filled with a magnetic fluid, and that it is possible, if one so wishes, to convey this fluid within to other individuals or objects, either via intermediary bodies, or, at least in certain people – including Mesmer himself – by the laying-on of hands. The thesis also holds that disease is caused by an imbalance of this fluid, and that its cure requires restoring its harmony.

Armed with these ideas, Mesmer shows up in Paris in 1778, aged 44 years, resolved to make a name for himself. His early days are nothing if not discouraging, and mockery is in ready supply. But, soon enough, a celebrated doctor, Charles Deslon (1750–1786), rallies to his arguments. Success, now it has arrived, is dazzling. Mesmer becomes the darling of the Paris *crème de la crème*, who flock to his spacious apartment to take part in "animal magnetism" seances, most often centred on an instrument – the *baquet* – of his own design.

2. The information given here is primarily taken from Chapter 7 of the *Memoirs of Extraordinary Popular Delusions and the Madness of Crowds* by Charles Mackay, which is focused in part on Mesmer.



Figure 2: Mesmer's baquet. This is the sole surviving example of the famous device. It is conserved at the Musée d'histoire de la médecine et de la pharmacie in Lyon (Photo © Éric Le Roux/Communication/Université Claude Bernard de Lyon).

This is how such a seance would proceed.³

In a large, mirror-clad, half-lit salon filled with the sound of piano music, attendees gather around the purportedly magnetised *baquet*. Metal rods, sprouting up out of this device, are applied to the infirm areas of the so-called patients' bodies. In addition, the participants are bound together by a rope, with their fingers and knees touching so as to facilitate the flow of the magnetic fluid.

Assistants – handsome and muscular young men – then enter the room. They touch the bodies of the participants – men and women alike – with their fingers, which are imbued in magnetic fluid, massaging various strategic zones. This is the point at which convulsions generally start – laughter, tears, hair-pulling, cries, spasmodic fits – and Mesmer himself now enters, bearing a metal wand. Using this wand or by laying on his hands, or simply through his gaze itself (the so-called “mesmeric pass”), he calms the participants, who are convinced of the reality of the fluid and its effects.

What we might call “Mesmeromania” has reached its climax. Now a famous man, Mesmer demands a stipend from the king to pursue his work and “research”. Scholars, doctors and philosophers join the ranks of his supporters.

3. This description is taken from Mackay and from the Academy report discussed below.

And though Mesmer – now “mesmerising” trees, which patients would hug for curative ends – does make a *baquet* available to the poorest in society, the very popular seances held in his home are fee-paying, and highly profitable.



Figure 3: Animal magnetism seance around a baquet. The caption reads: "Important discovery by M. Mesmer, doctor of medicine at the Faculty of Vienna in Austria" (22 x 31 cm image at the Department of Prints of the Bibliothèque Nationale de France, WikiCommons).

It is now 1784, and the medical faculty would very much like to submit Mesmer’s extraordinary claims to experimental test. But Mesmer slips away, momentarily quitting Paris under the pretext of taking the waters in Spa. Delson, who had initially refused, now consents for the theory and practice of animal magnetism, to which he subscribes, to be tested. On the king’s request, two commissions are appointed.

The first is composed of members of the faculty of medicine; the second is the commission of the Académie des Sciences. Notable members of the latter include Benjamin Franklin (1706–1790), then United States Ambassador to France, and Antoine Lavoisier (1743–1794), one of the founders of chemistry.

The second commission deliberates for four months, and its report, rightly celebrated, is held as a model in the genre.

Mesmer, at this time, is still on retreat in Spa with his most enthusiastic and wealthy supporters. The latter agree to launch a subscription in Mesmer's favour. This subscription comprises 100 shares, each valuing 100 louis, and confers upon the buyer the right to learn Mesmer's secret from the man himself. In the space of a few days more shares are sold than had been initially agreed. Mesmer returns to Paris with his fortune, and Societies of Harmony and other organisations peddling animal magnetism spring up across France.

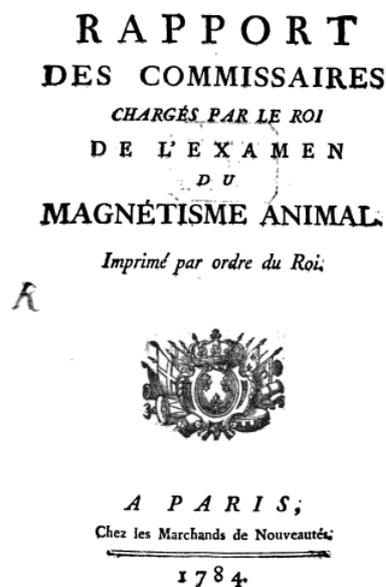


Figure 3: Frontispiece of the report of the Académie des Sciences (1784). Stephen Jay Gould would describe this report as "an enduring testimony to the power and beauty of reason" which should be "rescued from its current obscurity, translated into all languages, and reprinted by organizations dedicated to the unmasking of quackery and the defence of rational thought".⁴

The commission of scientists nevertheless continues its investigations. Having observed that the effects of magnetism do not manifest themselves in incredulous or sceptical individuals, it envisages various forms of experimentation in which unsuspecting persons believe themselves to be "mesmerised", but in reality are not. As could be expected, they feel the same effects.

4. S. J. Gould, *Bully for the Brontosaurus*, WW Norton & Co, New York, 1991, pp. 188–189. These passages are cited by Michael Shermer; the journal *Skeptic* (volume 4, issue 3) has published its English translation of the report. The [original](#) is available on the BIUM's digital library @medica.

Thus, such a patient, who attests to feeling the effects of the fluid on the part of the body where she has seen the magnetisor remotely apply his hands, can no longer identify which part of the body has been magnetised when blindfolded. Similarly, another patient, convinced that he is being treated by a magnetisor behind a closed door, quickly starts convulsing... next to a door with nothing behind it.

After many experiments of this kind, each one more ingenious than the last, the stark conclusion of the commission members runs as follows:

Imagination without magnetism produces convulsions, and magnetism without imagination produces nothing. ... Nothing proves the existence of animal-magnetism fluid; that this fluid with no existence is therefore without utility; that the violent effects observed at the group treatment belong to touching, to the imagination set in action.

With its implacable rigour and irrefutable conclusions, the report of Académie des Sciences would prove fatal to Mesmer's continued residence in Paris. He left the capital in 1785, seven years after he had arrived, and died in 1815 on the shores of Lake Constance. How he spent these thirty years remains a mystery. Yet his ideas very much survived, influencing German romanticism and idealism, sowing the seeds of interest in hypnosis and, like the latter, feeding into early psychoanalysis.



Figure 4: Image from the film *Le baquet de Mesmer*, by Georges Méliès (1904, length: 3 minutes). Viewable [online](#).

WHERE CONDORCET COMES IN

After outlining the historical context, let's now introduce Condorcet and the very particular reasons that led him to become interested in this affair.

Marie Jean Antoine Caritat, marquis de Condorcet (1743–1794) was the youngest of what in France are known as the *philosophes*. He was also the only *philosophe* to play an active part in the French Revolution, and in particular wrote numerous texts on education (or, more exactly, what he calls *public education*) as part of his involvement in the pedagogical endeavours of the Revolution. Furthermore, he was one of the main intellectual contributors to the idea of republican secularism (*laïcité*), with which everyone is familiar.



Figure 5: Nicolas de Caritat, marquis de Condorcet (1743–1794).

Condorcet owed his initial fame to his mathematical brilliance, particularly in the areas of analysis and differential and integral calculus. He was only 22 years old when he published *Essai sur le calcul intégral* (1765), and this highly successful publication won him the esteem and admiration of the greatest mathematicians of the age. Its author's scientific career, now underway, would be dazzling. He was elected to the Académie des Sciences in 1769 and continued to publish in the domain of pure mathematics. In 1773, in addition to contributing to the *Encyclopédie* – and on Voltaire's advice – he wrote the *Éloges* of academicians who had died between 1666 and 1699, notably Christiaan Huygens (1629–1695), Gilles de Roberval (1602–1675) and Edme Mariotte (c. 1620–1684).

By 1777 he was Inspector General of the Currency and secretary to the Académie des Sciences, but also deeply involved in the philosophical and political debates of his time. In 1782 he entered the Académie Française and wrote *Vie de Turgot* and *Vie de Voltaire*. With his wife, Sophie de Grouchy, he held a famous salon, which became a hub for pre-revolutionary philosophers and politicians.

On the eve of the Revolution, Condorcet was therefore the most illustrious representative of the “philosophical party” – the others having died before 1789.

Able to present himself as the living successor to the thinkers and ideals of the French Enlightenment, which he embodied both in his actions and his writings, he worked tirelessly for the cause of the Revolution.

Upon the adoption of the Montagnard Constitution on 24 June 1793, Condorcet wrote a text calling on the people to oppose the Convention. But, on 8 July 1793, he was denounced at the podium of this same Convention by a certain Chabot. Realising he had to flee, the philosopher took refuge at a friend's house. The outlaw's voluntary reclusion would last nine months.

With very restricted access to books but imbued with a sense of great urgency, Condorcet spent the spare time imposed by his clandestine existence writing a book that reads like a testament, and, what's more, in two respects. Indeed, this text (*Esquisse d'un tableau historique de l'esprit humain*) can be read both as Condorcet's personal testament, in which he synthesises both his knowledge and hopes, as well as – and this has not gone unnoticed – a synthesis of the ideas and ideals of the Age of Enlightenment as a whole: reason, knowledge, tolerance, humanity, education, emancipation, and progress.

With the text completed and fearing a witch hunt, Condorcet left his refuge and wandered the countryside. Upon arrest, he was taken to a prison in Bourg-l'Égalité, where he would be found dead in his cell on 29 March 1794. It is likely he committed suicide. In addition, his name remains associated with probability calculus, the notion of social mathematics and a famous and influential paradox aptly known as the "Condorcet paradox" or, sometimes, the "Condorcet effect".

A famous mathematical paradox

Condorcet strove to closely relate advances in knowledge with social progress. Hence the notion of "social mathematics", which he envisaged (and coined), and which aims to apply mathematical technique to the resolution of interpersonal, social and political problems. Condorcet was, for this reason, a key forerunner to the mathematisation of the social sciences and social choice theory, as testified by his *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* (1785).

The famous Condorcet paradox appears in this text. To explain it in simple terms, we will borrow an example used by Douglas Blair and Robert Pollak.

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Let's imagine that an interview board comprising individuals A, B and C must choose a candidate among three contenders: x, y and z. The preferences of each interviewer are in the following order:

VOTERS	ORDER OF PREFERENCE
A	x, y, z
B	y, z, x
C	z, x, y

If one examines this data carefully, one notices that in two out of three cases (2/3 of the voters), x beats y. In two out of three cases, y beats z. In other words, x beats y, and y beats z. And yet, equally, in two out of three cases, z beats x!

The principle of transitivity (which holds that if the total x is greater than the total y and that the latter is greater than the total z, then the total x is necessarily greater than the total z) is not respected, and this is deeply troubling.

In economics, Arrow's theorem, formulated in 1963, is a remarkable generalisation of this result applied to social choice theory. It has sparked enormous discussion and many avenues have explored to overcome the Condorcet paradox and its generalisation by Arrow.

CONDORCET AGAINST MESMEROMANIA: AN INEVITABLE CRITIQUE

Considered in light of the Enlightenment axiom – of which Condorcet was one of the most ardent advocates – that the advance of reason diminishes superstition and leads to the perfection of humankind, there is indeed something genuinely shocking about the obscurantism of Mesmeromania, and most of all about the fact that it affected those who, by dint of their education, should have known better.

The affair thus invites us to reflect on the regulating and adjudicating role of reason in democratic debates. But also, by that same token, it forces us to consider the status and role of institutions that embody such reason, first and foremost the *académies* that were, in this case, accused of favouritism and partiality by Mesmer's champions. In turn, the topic also embraces the role of scholars and the purpose of education in an enlightened democracy: that of apprising the public of relevant information and contributing to forming and enlightening its judgement.

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Condorcet probably wrote his text while the commission of scientists was pursuing its investigations.⁵ It has, as we will see, retained all its relevance in its salutary reminder of the fundamental principles of critical thought: for example, that credulity is more widespread than we would no doubt like to admit; that eminent and reputedly erudite figures from diverse disciplines have been fooled in the past; that one must be wary of testimonies,⁶ consider whether they are acceptable (and on what conditions), and envisage various hypothesis to explain ostensibly extraordinary phenomena; and so on and so forth, as readers will discover below.



Figure 6: One of the countless forms in which "magnetic treatments" appear today. Here, a bracelet.

But its relevance, alas, is also saddening: it has been estimated that, across the world, the various magnetic treatments – using bracelets, rings, jewellery, shoe soles and other gadgets – represent a market of one billion dollars. Countless critiques of such treatments have been voiced since Condorcet first expressed his doubts, and rigorous and credible evaluations have dismantled and quashed their claims *ad nauseam*.⁷ They more than nullify any doubts that Condorcet (or the person who copied his text in the Institut dossier⁸) could have harboured about publishing these reflexions on animal magnetism.



(January 2014)

(translated in English by Helen Tomlinson, October 2014)

5. It was in fact written after Mesmer's famous sale of his secret, for Condorcet refers to this event; he does not, however, refer to the commission's report.

6. Condorcet had most probably read David Hume (1711–1776) on this subject.

7. On this subject, see Stephen Barrett's synthesis, "Magnet Therapy: A Skeptical View" (accessible [online](#)) and the leader of 5 January 2006 in the *British Journal of Medecine*, 332:4: "Magnet therapy".

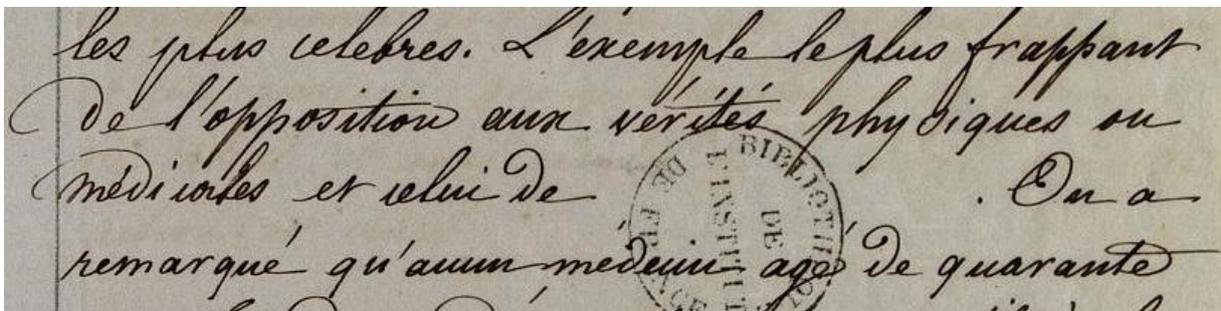
8. [Translator's note] Condorcet's text is conserved at the Bibliothèque de l'Institut de France.

(This article was first published in the magazine Le Québec sceptique, no. 75, summer 2011. It is published here alongside Condorcet's manuscript, which has been digitised by BibNum, D.R. Institut de France. Normand Baillargeon's original text and illustrations have been slightly adapted.)

Annex: Condorcet's manuscript

The text is found in MS 883 (folios 230–246) at the Institut's library.

Two texts can be clearly distinguished: a draft written on parchment and a final version written on smaller, onionskin paper. It is reasonable to believe that the second document is a later copy (perhaps produced after Condorcet's death, on the occasion of the republication of some of his texts), for the copyist is unable to read the (very badly written) name Harvey in the manuscript (cf. the blank space beneath the stamp). If Condorcet had been the author of the document, there would not have been this gap, of course.



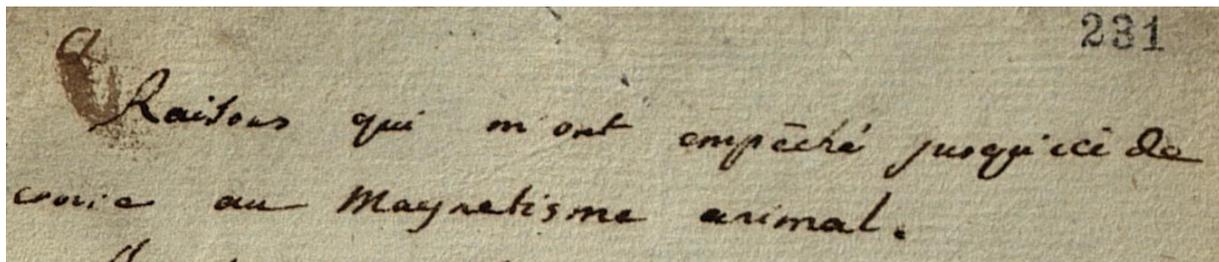
That aside, the two texts differ only slightly. I have transcribed the second text and referred to the other to resolve doubts that arose when reading certain passages.

My editorial work on the text was limited. I modernised the spelling of a few words when this was desirable (*savant* for *savan*, *attouchement* for *attouchemen*, *prosélyte* for *prosélite*, for example);⁹ punctuated lightly; indicated, where necessary, the interpretations I favoured when it was necessary to make a decision; and added a few footnotes to aid comprehension of the text.

I have, however, annotated the text to make it easier to understand, notably by identifying the people to whom or the events to which Condorcet refers.

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9. The English translation of the manuscript is reproduced after the transcription.



Je respecte beaucoup les hommes distingués qui ont acheté le secret de M. Mesmer parce qu'ils y croyaient d'avance et qu'ils ont continué d'y croire.

Mais Bodin croyait aux sorciers. L'imposture grossière des vampires attestée par une foule de témoins a eu pour historien le savant Dom Calmet. Jacques Aymar a eu des partisans illustres ; la poudre du chevalier Digby a fait des prodiges sur des malades de tous les états. On est étonné des noms qu'on rencontre au bas des miracles de St Médard. De nos jours on a cru à l'horoscope [et à] Larangue qui voyait l'eau à travers la terre, ce qui est un véritable miracle. Parmi les prosélytes de Swedenborg on trouve des hommes instruits, occupant des places honorables et raisonnables sur toute autre chose.

Les seuls témoins qu'on doive croire sur les faits extraordinaires sont ceux qui en sont les juges compétents. Il existe,¹⁰ dit-on, un fluide universel dont les effets s'étendent depuis les astres les plus éloignés jusqu'à la Terre?¹¹ Eh bien, je n'y puis croire que sur l'autorité des physiciens. Ce fluide agit sur le corps humain ? J'exige alors que ces physiciens joignent de la philosophie à leurs connaissances parce que je dois me méfier alors de l'imagination et de l'imposture. Ce fluide guérit les malades sans les toucher ou en les touchant ? Alors, j'ai besoin que les médecins m'attestent la maladie et la guérison.

Mais le magnétisme animal a été admiré, employé par des philosophes et des médecins. J'en conviens. Mais il s'agit de me déterminer à croire sur une autorité : cela est dur pour la raison humaine. Ainsi, je n'entends point par physicien ou par médecin un homme qui a fait des livres de physique ou qui a été reçu docteur dans quelque faculté. J'entends un homme qui avant qu'il fut question du magnétisme jouissait en France, en Europe même, d'une réputation bien établie. Voilà l'espèce de témoignage qu'il me faut pour croire un fait extraordinaire de physique ou de médecine.

Mais il faut encore que ce témoignage ne soit pas balancé par des témoignages contraires, à égalité de mérite et d'autorité. Un seul homme

10. [Translator's note] See footnote 21, below.

11. [Translator's note] See footnote 22, below.

qui, admis à voir les mêmes faits, ou ne les voit pas ou n'y voit point le merveilleux qu'on peut y voir, balancera ceux qui auront vu : parce que la circonspection qui ne voit point trompe rarement et que l'enthousiasme qui veut croire trompe souvent.

D'après ces principes on voit déjà qu'il est impossible de croire au magnétisme animal soit de M. Deslon, soit de M. Mesmer.

Examinons maintenant si, malgré la sainteté du secret, ces messieurs n'en ont pas assez dit, ou assez laissé voir, pour ôter toute espèce de motif de croire.

C'est l'imagination qui seule produit les effets attribués au magnétisme : qui ne l'a dit ? M. Mesmer lui-même et ses partisans qui ont employé ouvertement tous les moyens connus pour exciter l'imagination : appareils merveilleux, postures bizarres ou contraintes, langage extraordinaire, réunion d'un grand nombre d'individus; des attouchements légers qui, dans les individus sensibles produisent un effet qui les étonne et réveille l'activité de leur imagination.

L'approche du doigt produit même, à une petite distance, une sensation fugitive qui devient un léger chatouillement lorsqu'on a une forte attention ; une heureuse crédulité et l'imagination se chargent du reste. Des femmes vaporeuses sont magnétisées par des hommes et il n'y a point de médecin éclairé, de physicien instruit qui ne sache combien il en peut résulter de choses merveilleuses, en supposant même chez les magnétiseurs l'innocence la plus complète.

Quelques personnes ont osé parler de charlatanisme, mais ces malades soumis à la volonté du magnétiseur, ces cataleptiques qui n'en voient que mieux quand ils ont perdu la vue, ces malades qui devinent les maladies, tout cela n'a-t-il pas la plus grande ressemblance à ces fameuses histoires de démoniaques dont les livres sont pleins. Nicole De Vernins, Marthe Brossier, les Ursulines de Loudun n'ont pas fait de choses moins merveilleuses. Les raisonnements des magnétiseurs contre les préjugés des savants ne sont-ils pas absolument les mêmes que ceux des charlatans les plus célèbres ? L'exemple le plus frappant de l'opposition aux vérités physiques ou médicales est celui de Harvey. On a remarqué qu'aucun médecin âgé de quarante ans lors de sa découverte, ne consentit à la croire. Mais un grand nombre de physiciens y crurent sans peine. L'exemple de Newton ne prouverait rien ici : personne ne nia les découvertes. On persista seulement à vouloir les expliquer par des tourbillons; et on ne citera pas une seule découverte qui n'ait été reconnue en très peu de temps par la pluralité des savants; et pas une des prétendues découvertes rejetée par eux qui n'ait été reconnue pour une chimère.

La manière dont les magnétiseurs défendent leur doctrine me paraît encore un violent préjugé contre eux. Par exemple ils parlent de fluide magnétique et ils ignorent que l'existence de ce fluide est bien loin d'être généralement reconnue. Ils donnent l'influence de la lune sur le corps humain pour une vérité avérée, et ni cette influence, ni les faits sur lesquels ils l'appuient ne sont admis. Ils comparent cette influence à l'action que produit les marées, et ils ignorent que cette action a été soumise au calcul et qu'il résulte de ce calcul que cette action est nulle.

[IX] *Parmi les personnes qui ont des secrets, les unes avouent franchement qu'elles les gardent pour s'enrichir ; si cela n'est pas noble, cela n'est pas injuste : et en vérité l'exacte justice est si rare, et si on l'observait le genre humain se trouverait si bien qu'on ferait fort bien de ne rien exiger de plus des hommes ou du moins de l'état.*

Les autres disent qu'il y aurait du danger à révéler leur secret. Quelques-uns le conservent pour que les étrangers, les ennemis du pays n'en profitent point. Ces derniers motifs sont suspects toutes les fois qu'un homme fait une chose utile à ses intérêts ; il peut s'ouvrir à ses amis sur les motifs plus nobles qui peuvent l'inspirer, mais il ne doit jamais les dire au public qui ne peut le croire.

[X] *D'ailleurs comment ce secret si utile serait-il dangereux s'il était connu? Ne l'est-il pas davantage en restant secret ? S'il est public ne trouvera-t-on pas des moyens de s'en défendre ?*

Supposez la poudre à canon connue d'une seule nation, n'aurait-elle pas réduit toutes les autres à l'esclavage, les possesseurs du secret ne seraient-ils pas les maîtres absolus de leur nation ? Est-il possible de garder ce secret, et cependant de le répandre assez pour qu'il soit utile ?

[XI] *Comme Mr Mesmer est mécontent des Académies nous prendrons la liberté de raconter ici une petite anecdote. Un homme qui avait trouvé la quadrature du cercle se plaignait qu'on ne voulut pas l'examiner.— «Mais, lui dit un Académicien, ces examens font perdre inutilement beaucoup de temps». — «Cela est bon pour les autres, dit le quadratureur. N'examinez que la mienne. Elle est seule bonne».*

[XII] *Mr Mesmer veut-il que des gens sans préjugés croient à la réalité de son agent, ou veut-il ne persuader que ses malades ?*

S'il veut convaincre les gens sans préjugés, que son cabinet soit ouvert aux physiciens ; que là, sans malades et n'ayant pour témoins que ceux qui ont bien voulu s'y rendre, il fasse des expériences bien simples, bien convaincantes, peu à peu il verra arriver successivement chez lui tous les hommes éclairés, selon qu'ils sont plus ou moins disposés à croire. Il entendra leurs objections, il trouvera les moyens de les détruire.

Ne veut-il persuader que les malades ? Il n'a rien à faire que ce qu'il fait.

J'en demande pardon à Mr Mesmer, je n'ai jamais cru ni aux grandes découvertes qu'on garde dans son portefeuille, ni aux inventions dont on ne s'empresse point de prouver la réalité, ni aux complots de savants contre les nouvelles découvertes. M.M. les inventeurs, si vous vous défiez de leur zèle pour la vérité, croyez au moins à leur orgueil : ils ne demanderont pas mieux que de connaître ce que vous avez découvert, et ils ne douteront pas d'en tirer bientôt plus de vérité que vous-même.

Reasons that have hitherto prevented me from believing in Animal Magnetism

I much respect the distinguished men who bought M. Mesmer's secret¹² because they believed in it beforehand and have continued to believe it.¹³

But Bodin believed in witches.¹⁴ The crude imposture of vampires attested by a crowd of witnesses had as its historian the erudite Dom Calmet.¹⁵ Jacques Aymar¹⁶ had illustrious supporters; the powder of knight Digby¹⁷ worked wonders on invalids of all states. One is amazed by the names one can find among the St Médard miracles.¹⁸ In our time we have believed in the horoscope [and in] Larangue who saw water through the earth, which is a veritable miracle.¹⁹ Among Swedenborg's²⁰ proselytes one finds educated men who hold honourable²¹ and reasonable positions in any other area.

The only witnesses we should believe about extraordinary events are those who are competent to judge them. There exists,²² it is said, a universal fluid whose effects extend from the most distant stars to the Earth?²³ Now then, I can believe it only on the authority of physicists. This fluid acts on the human body? I will demand that physicists add philosophy to their knowledge because I must then beware of imagination and imposture. This fluid heals the infirm without touching them or by touching them? Then I need physicians to attest to the disease and to its cure.

12. A reference to the subscription discussed above.

13. The irony in the introduction is plain, and reminiscent of Descartes's opening words in his *Discours de la méthode* (*A Discourse on Method*): "Le bon sens est la chose du monde la mieux partagée ; car chacun pense en être si bien pourvu, que ceux même qui sont les plus difficiles à contenter en toute autre chose n'ont point coutume d'en désirer plus qu'ils en ont" ("Good sense is, of all things among men, the most equally distributed; for every one thinks himself so abundantly provided with it, that those even who are the most difficult to satisfy in everything else, do not usually desire a larger measure of this quality than they already possess").

14. A reference to the political and legal philosopher and theorist Jean Bodin (1529–1596). His *De la Démonomanie des sorciers* (1580) holds that witches exist and recommends recourse to torture to exact confessions, even against the disabled or children suspected of witchcraft.

15. The Benedictine Antoine Calmet (1672–1757) was the author of a dissertation on the apparition of angels, demons and spirits and on the phantoms and vampires of Hungary, Bohemia, Moravia and Silesia (1746).

16. Jacques Aymar-Vernay was a French peasant alive at the end of the 17th century who claimed to be able to locate water, metal and even wrongdoers using a divining rod.

17. The Englishman Kenelm Digby (1603–1665) would popularise the "powder of sympathy" in France. He presented it in his *A late discourse made in solemn assembly of nobles and learned men at Montpellier in France, touching the cure of wounds by the powder of sympathy* (1658).

18. Against the backdrop of the Jansenist quarrel, alleged miracles and convulsions took place between 1727 and 1732 in the Saint-Médard cemetery, at the tomb of the deacon François de Paris (1690–1727), a friend of the poor.

19. *Hydrosopes* was the name given to individuals who claimed to be able to see water through the earth. It is possible that this Larange (or Parangue ?), of whom I have been able to find no trace, was one.

20. Emanuel Swedenborg (1688–1772) was a Swedish scientist, inventor, theologian and philosopher. Towards the end of his life he became a mystic of sorts, claiming to have visions.

21. The word "reasonable" has been crossed out.

22. Condorcet wrote "demand" (*exige*). This has been corrected. [Translator's note] See footnote 9 in Condorcet's original text, above.

23. Condorcet wrote "earth" (*terre*). The word has been capitalised, as is conventional. [Translator's note] See footnote 10 in Condorcet's original text, above.

But animal magnetism has been admired and employed by philosophers and physicians. True enough. But what is at stake here is resolving to believe on the word of an authority: that is difficult for human reason. Thus, by physicist or physician I do not refer to a man who has written books of physics or received a doctorate from some faculty. I refer to a man who, before the question of magnetism even arose, enjoyed a well-established reputation in France, if not in Europe too. That is the kind of testimony I require to believe an extraordinary event in physics or medicine.

But necessity also requires that this testimony not be counterbalanced by contrary though equally deserving or authoritative testimonies. A single man who, on observing the same events, either fails to see them or fails to see the marvels one may see in them, will counterbalance those who have seen: for circumspection that sees nothing is rarely mistaken and enthusiasm that wishes to believe often is.²⁴

On the basis of these principles it is already clear that it is impossible to believe in the animal magnetism of either M. Deslon²⁵ or M. Mesmer.

Let us now examine whether, despite the sanctity of the secret, these gentlemen have not said or shown enough to remove any reason to believe them.

Imagination alone produces the effects attributed to magnetism: who has not said so? M. Mesmer himself and his followers, who have openly employed all known means to excite the imagination: marvellous appliances, bizarre or contrived postures, extraordinary language, the gathering of a large number of individuals, and light touches which, in sensitive individuals, produce an effect that surprises them and awakes the activity of their imagination.

The nearness of a finger, even when a small distance away, produces a fleeting sensation that becomes a slight tickling given strong attention; blithe credulity and the imagination will take care of the rest. Diaphanous women are magnetised by men and there is not one enlightened physician or educated physicist who does not know in what marvels this can result, even supposing the most complete innocence on the part of the magnetisers.

Some have dared to talk of charlatanism, but these invalids subjected to the magnetiser's will, these cataleptics who see only better after losing their sight, these sick people who sense sickness, doesn't this all bear a close resemblance to those famous stories of demonic possession that

24. I have fused this final phrase with the preceding one, which seems to be preferable in terms of understanding the argument. Condorcet made it a standalone sentence in a new paragraph.

25. Charles Nicolas Deslon (1750–1786), professor of medicine and member of the Royal Society of Medicine, was also, as we have seen, an ardent champion of Mesmer's theories.

have filled so many books. Nicole De Vernins,²⁶ Marthe Brossier,²⁷ and the Ursulines of Loudun²⁸ did not achieve less marvellous feats. Are not the magnetisers' arguments against scientific opinion absolutely the same as those of the most famous charlatans? The most striking example of opposition to physical or medical truths is that of Harvey.²⁹ It has been noted that upon his discovery, no physician above the age of forty consented to believe him. But a great number of physicists had no difficulty believing him. The example of Newton would prove nothing here: nobody denied the discoveries. They simply persisted in wanting³⁰ to explain them with whirlwinds.³¹ It is impossible to cite a single discovery that was recognized in a very short space of time by a diversity of scientists, nor a purported discovery they rejected that has not been recognized as a chimera.

The manner in which the magnetisers defend their doctrine appears to me yet further striking evidence against them. For instance, they talk of magnetic fluid, ignorant that the existence of this fluid is far from being generally recognized. They describe the moon's influence on the human body as an acknowledged truth, yet neither this influence nor the information they invoke is accepted. They compare this influence to the action produced by tides, ignorant that this action has been subject to calculation and that it follows from this calculation that the action is nil.

[IX] Among those that hold the secrets, some openly admit to keeping them to enrich themselves; though that is not noble, it is not unjust: and in truth exact justice is highly rare, and if achieved the human race would be so comfortable that we would do well to demand nothing more of men, or at least of the state.

The others say it would be dangerous to reveal their secret. Some guard it so that foreigners and the country's enemies do not benefit from it. These last grounds are to be suspected whenever a man does something in his interests: he can confide to his friends the noblest of motives that inspire him, but he must never tell them to the public, who cannot believe him.

[X] In addition, how can so useful a secret be dangerous if known? Is it not more so by remaining secret? If it were made public would we not find means to defend ourselves?

26. Conjectural reading. Alleged case of demonic possession.

27. Alleged case of demonic possession.

28. Alleged cases of demonic possession at a convent in Loudun. This famous affair (known as the Loudun Possessions or the Devils of Loudun) erupted in 1632 and caused a great stir. It led to the death of a priest, who was tortured then burned at the stake.

29. William Harvey (1578–1657) was an English doctor and physiologist who revolutionised physiology by describing, in his *Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus* (1628), the circulation of blood and the role of the heart in this process.

30. Here, in the margin: *certificat de malades*. [Translator's note] "patient's testimony"

31. Allusion to Cartesian physics, which invoked ether whirlwinds filling space.

Suppose that gunpowder were known to one country alone: would she not have reduced all the others to slavery; would not the possessors of the secret be the absolute masters of their nation? Is it possible to keep this secret, and yet make it sufficiently widespread to be useful?

[XI] *As M. Mesmer is displeased with the Academies, let us take the liberty of relating a little anecdote here. A man who had squared the circle complained that no one wished to examine his discovery. "But," an academician told him, "these investigations waste a lot of time needlessly." "That's fine for other people," said the geometrist. "Don't examine mine. It alone is right."*

[XII] *Does M. Mesmer wish unprejudiced people to believe in the reality of his substance, or does he wish to convince his invalids alone?*

If he wishes to convince unprejudiced persons, let him make his surgery open to physicians; let him perform, without invalids and with only those who wished to attend as witnesses, simple, convincing experiments, and gradually he will observe that all enlightened men frequent his home in succession, to the extent to which they are disposed to believe him. He will hear their objections, and he will find means to destroy them.

Or does he wish to persuade the infirm alone? He has nothing to do for it is already done.

I demand M. Mesmer's pardon; I have never believed in great discoveries one keeps in a briefcase, nor in inventions whose reality one does not hasten to prove, nor in scholarly plots against new discoveries. Messrs the inventors, if you defy their zeal for the truth, at least believe in their pride: they will demand nothing better than to know what you have discovered, and they will not waver to promptly elicit from it more truth than yourself.



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