

‘A PORTION OF TRUTH’: DEMARCATING THE BOUNDARIES OF SCIENTIFIC HYPNOTISM IN LATE NINETEENTH-CENTURY FRANCE

by

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In *fin-de-siècle* France, hypnotism enjoyed an unprecedented level of medico-scientific legitimacy. Researchers studying hypnotism had nonetheless to manage relations between their new ‘science’ and its widely denigrated precursor, *magnétisme animal*, because too great a resemblance between the two could damage the reputation of ‘scientific’ hypnotism. They did so by engaging in the rhetorical activity of boundary-work. This paper analyses such demarcation strategies in major texts from the Salpêtrière and Nancy Schools – the rival groupings that dominated enquiry into hypnotism in the 1880s. Researchers from both Schools depicted *magnétisme* as ‘unscientific’ by emphasizing the magnetizers’ tendency to interpret phenomena in wondrous or supernatural terms. At the same time, they acknowledged and recuperated the ‘portions of truth’ hidden within the phantasmagoria of *magnétisme*; these ‘portions’ function as positive facts in the texts on hypnotism, immutable markers of an underlying natural order that accounts for similarities between phenomena of *magnétisme* and hypnotism. If this strategy allows for both continuities and discontinuities between the two fields, it also constrains the scope for theoretical speculation about hypnotism, as signalled, finally, by a reading of one fictional study of the question, Anatole France’s ‘Monsieur Pigeonneau’.

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In a scene from Jules Claretie’s 1881 novel *Les amours d’un interne*, the sculptor Mongobert exchanges mocking banter with medical students at the Salpêtrière Hospital in Paris. One of Mongobert’s targets is the claim by medical researchers to have made scientific progress in studying hypnotism. ‘One thing is certain’, he declares,

that is – call it what you will, hypnotism, hystero-epileptic attack, catalepsy with suggestion, artificial somnambulism, whatever – you find yourself face to face, you, clever boots, with that notorious *magnétisme animal*, so [often] booed, jeered . . . , and that you study under another name!¹

Under prompting from Mongobert, the extern Charles Finet relates how he hypnotizes his mistress, Lolo, so that she falls into a state of catalepsy. At each new term introduced by

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Finet—‘catalepsy’, ‘hypnotized’—Mongobert mutters ‘magnétisme’.² Exasperated by this continued provocation, Finet insists on clarifying his position: ‘Mongobert, my friend, we are talking science to you and you reply charlatanism!’³ For Finet, hypnotism and *magnétisme* simply do not compare. But for Mongobert, it is precisely this distinction that appears blurred, since Mesmer—credited with introducing *magnétisme* in France a century earlier—‘hypnotized the great ladies like Finet hypnotizes Lolo!’⁴

Where Finet asserts a fundamental demarcation between *magnétisme* and hypnotism, as ‘charlatanic’ past and ‘scientific’ present, Mongobert views the hypnotism–*magnétisme* relationship in terms of continuity and resemblance. In late nineteenth-century France, tension between these two positions had serious consequences for the legitimacy of enquiry into hypnotism. By very many counts, hypnotism enjoyed an unprecedented medico-scientific legitimacy through the 1880s and 1890s, and the period has attracted significant scholarly attention as the ‘golden age’ of hypnotism research.⁵ Hypnotism was studied and taught in major hospitals and medical faculties across France, most prominently at the Salpêtrière Hospital, which is the setting for Finet and Mongobert’s dispute. Several students wrote medical theses on the topic, hypnotism was discussed in the Académie des sciences and other learned societies, and publications on hypnotism, including books, articles and printed medical lectures, numbered in the hundreds.⁶

Yet the status of hypnotism as a legitimate medical science was always somewhat fragile, for hypnotism was not without a past. As Mongobert comments pointedly in the novel, there was a striking resemblance between new work on hypnotism and the claims and practices of *magnétisme animal*, a therapeutic method inaugurated by Franz Anton Mesmer in the late eighteenth century, but ever since then ‘booed’ and ‘jeered’. *Magnétisme* had notably suffered repeated rejections at the hands of the academic establishment from Mesmer’s day through to the middle of the nineteenth century, when the Académie de médecine formally dismissed it from the ranks of scientifically admissible questions.⁷ By the late 1870s, *magnétisme* was considered firmly ‘extra-scientific’ by the medical community and cultivated public, being held in ‘universal discredit’ on account of its simulating subjects (i.e. subjects who faked their symptoms), charlatanic or deluded practitioners and *merveilleux* (or wondrous) phenomena.⁸ A similar discredit threatened to attach to hypnotism unless researchers could convince medical and cultivated publics that, despite some resemblances, hypnotism and *magnétisme* were fundamentally distinct activities.

As a result, *savants* working on hypnotism engaged in what Thomas Gieryn has termed ‘boundary-work’. This rhetorical activity functions to distinguish a field from rivals for epistemic authority or resources by highlighting various characteristics that mark the field as scientific, and its rival(s) as non-science.⁹ My purpose in this paper is to explore forms of boundary-work used by 1880s’ researchers to demarcate hypnotism as ‘scientific’, in contrast to an ‘extra-scientific’ *magnétisme*. In particular, I elucidate how the boundaries of scientific hypnotism were negotiated to allow for continuities in phenomena and practices between *magnétisme* and hypnotism. For, as revealed in the fictional scene, the *magnétisme* that constituted a reputational danger to hypnotism was its precursor in time, the *magnétisme* of Mesmer and his successors, not the contemporaneous activities of stage or lay magnetizers in 1880s’ France. The temporal relationship made continuities difficult to ignore or dismiss without attracting a charge of hypocrisy—Mongobert’s mockery makes that clear. In other words, French hypnotism researchers undertook

diachronic boundary-work, rather than its synchronic counterpart; until the last few years of the decade, they had remarkably little to say about stage magnetizers or magnetic healers.¹⁰ This distinguishes their rhetorical efforts from those of hypnotists in Germany or Spain, which focused on contemporaneous rivals for authority. Moreover, whereas the status of hypnotism as *science* was at stake for French researchers, as in the fictional scene, concern to present hypnotism as an effective and safe therapy played a significant part in German and Spanish boundary-work.¹¹ That hypnotism had much greater legitimacy in France no doubt helps account for these differences. Indeed, no previous scholarly analysis has addressed the French context from the perspective of boundary-work. In adopting such a perspective, this paper seeks to shed new light on the dynamics of enquiry into hypnotism during its unique 'golden age'.

To interrogate the rhetorically drawn boundaries of hypnotism is also to engage with two broader questions. First, it is to open a window onto what was at stake in being scientific at this historical moment; what researchers chose to critique in *magnétisme*, and thus exclude from their science, signals how an experimenter was supposed to comport himself and to present his results, and what he could not say. Fears of *magnétisme* are the shadows that throw scientific values into relief.¹² A second, related point concerns the circulation of knowledge across scientific boundaries. What rhetorical moves allowed hypnotism researchers to translate expertise or practices from 'illegitimate' magnetic sources into legitimate 'science'? And what can that tell us about how knowledge was framed in this context?

It should be clear that I am not proposing to describe relations between the *magnétisme* of the early to mid nineteenth century and 1880s' experiments or theories. Historians have previously problematized any notion of a definite rupture between the two, with Jacqueline Carroy persuasively charting the ways in which cultures of mid-century *magnétisme* prefigured experimental themes in scientific hypnotism.¹³ Similarly, Anne Harrington and Régine Plas have demonstrated the persistence of neo-magnetic concepts in explaining hypnotic phenomena.¹⁴ My interest, in contrast, centres on hypnotism discourse during the 'golden age'. How was the relationship with *magnétisme*, its continuities and discontinuities, presented in this specific historical context? Most extended studies of hypnotism during the 1880s treated the relationship to some degree, thereby undertaking forms of boundary-work. Here, I analyse demarcation strategies in the two emblematic texts of established hypnotism research, which reflect, respectively, the positions of the two major, rival 'schools' of thought on hypnotism. The Salpêtrière School view appears in Alfred Binet and Charles Féré's *Le magnétisme animal* (1887); that of the Nancy School in *De la suggestion et de ses applications à la thérapeutique* (1888) by Hippolyte Bernheim.¹⁵ It is noteworthy that, despite the well-known opposition between the schools,¹⁶ these texts adopt a similar strategy for managing the boundary between hypnotism and *magnétisme*. The paper begins with a brief overview of Binet and Féré's and Bernheim's rhetorical approach and the ways it articulated nineteenth-century scientific principles. I then examine in greater detail which elements of *magnétisme* the hypnotism researchers opted to recuperate and which to dismiss. This leads me to reflect on the implications of these choices for conceptions of science and of knowledge circulation. Finally, I discuss another contemporaneous fictional representation of boundary-work, Anatole France's short story 'Monsieur Pigeonneau' (1887),¹⁷ for what it reveals about the constraints placed on enquiry into hypnotism by the ways in which researchers constructed its scientific boundaries.

FACTS AND THEORIES

Binet and Féré and Bernheim devote a substantial portion of their respective texts to relating the history of hypnotism, but in neither case do recent developments in the field of study receive much historical attention. Rather, these histories retell the story of research into *magnétisme*, its evolution and continually compromised reputation, from Mesmer's 'discoveries' in the 1770s, through the turbulence of debates in the Académie de médecine during the 1820s and 1830s, to the disparate approaches of the 1850s and 1860s. In concentrating on *magnétisme* during its most disputed period, these texts betray an anxiety that public perceptions of *magnétisme* and its chequered history could destabilize the legitimacy of 'scientific' hypnotism. For it was almost universally taken for granted that something linked hypnotism and *magnétisme*.¹⁸ Binet and Féré and Bernheim managed these associations by separating the 'portions of truth' (*une part de vérité/un grain de vérité*)¹⁹ identifiable in accounts of *magnétisme* from the magnetizers' 'theories' or 'interpretations' of those truths. The former could be recovered for use in studying hypnotism, whereas the latter were presented as erroneous and misguided, to be rejected outside the bounds of scientific enquiry.

A notable (and advantageous) characteristic of this division is that it maps onto the distinction between 'facts' and 'theories', as established in contemporary theorizing about scientific method. During the second half of the nineteenth century in France, the dominant model for medico-scientific activity was Claude Bernard's experimental physiology; Bernard expounded its principles in his celebrated 1865 *Introduction à l'étude de la médecine expérimentale*.²⁰ Binet and Féré applied these principles in their experimental work, while Bernheim, who similarly conceived his research in terms of 'science', was also influenced by Bernard. According to Bernard, a fact, once observed, could not be denied to exist. If two observations contradicted one another, the principle of determinism—understood as fixed conditions leading to fixed effects—meant that the discrepancy had to be attributed to a difference in conditions, or to an error in identifying those conditions.²¹ Theories, in contrast, were only ever 'partial and provisional', and were subject to revision or abandonment as a science evolved.²²

Since a fact in itself could not be false, selected 'portions' of *magnétisme*, once properly verified, could be accorded this status and thereby marked as valid objects of scientific enquiry. Freed from the taint of problematic interpretations by subsequent confirmation of their 'truth', they became legitimate importations into hypnotism: 'that which, yesterday, appeared unworthy of scientific examination, passed ... to the status of a notion established long ago', as Féré proclaimed in one article.²³ For their part, theories of *magnétisme* were to be disqualified from scientific status. In turn, this permitted researchers to draw a clear demarcation line between 'unscientific' *magnétisme*, now defined in terms of its erroneous theories, and the work of 'scientific' hypnotism.

PORTIONS OF TRUTH

On examining the 'truths' identified by Binet and Féré and Bernheim, it becomes clear that what counted as a fact for these researchers was dictated by a presentist logic; they recovered certain 'portions' of *magnétisme* based on their fit with 1880s' knowledge and themes of enquiry. Thus Bernheim remarked with paradoxical causality on the findings of the Husson Commission that its report 'contains and assesses soundly most of the facts, *such as we have*

described them'.²⁴ Binet and Féré concurred regarding this 1825 Commission, charged by the Académie de médecine with investigating the magnetizers' claims, and led by the *magnétisme* sympathizer H. M. Husson. It had provided 'some good descriptions of somnambulism' (another term for the hypnotic state), which Binet and Féré proceeded to quote.²⁵ Comparison with Charcot's account of the hypnotic state reveals a significant overlap, especially regarding cutaneous insensibility and the convulsed position of the eyeballs.²⁶

A similar logic is evident in the way in which Bernheim evaluated the work of Abbé Faria, who gave public demonstrations of *magnétisme* around 1813, and hypnotized his subjects by ordering them to 'sleep!' Through Faria's manoeuvres, 'the doctrine of suggestion was created, at least as a mechanism for producing [hypnotic] sleep', maintained Bernheim.²⁷ Suggestion was well known to constitute the 'keystone' in Bernheim's conception of hypnotism.²⁸ It was this understanding on Bernheim's part, like Charcot's 1882 description of hypnotic states, that retrospectively validated the magnetizers' claims and made them eligible to (re)appear as facts in scientific work on hypnotism. Facts, in other words, were constructed diachronically, with reference to matters of significance in 1880s' research. If this seems to run counter to Bernard's views—under which a fact is immutable and objective—it was eminently reasonable as part of a rhetorical exercise. The point, after all, was to manage continuities between *magnétisme* and hypnotism, and continuity implies a presence in both scholarly endeavours.

There was an additional benefit to seeking out magnetic equivalents to hypnotic phenomena, beyond allowing for resemblance between the two areas of study. The 'facts' thereby identified also functioned to construct a long-term heritage for the findings of hypnotism research, and thus to anchor them in reality. For if the phenomena of hypnotism had existed in their present form throughout the previous century, then they could hardly be the result of experimenter fraud or subject simulation—both charges frequently levelled at *magnétisme* and, by association, at hypnotism. (Indeed, in a circular process, many hypnotism researchers perpetuated these associations by using stories of charlatanic magnetizers and mendacious somnambulists to mark *magnétisme* as unscientific.²⁹) As Pierre-Henri Castel put it for the parallel case of hysteria, where researchers sought a historical precedent for their discoveries in artworks,³⁰ such moves served to 'found through history the somewhat fragile reality of the discoveries of the new morbid psychology'.³¹ To consolidate this reality further, Binet and Féré and Bernheim extended the heritage of hypnotism research back to ancient times, noting similarities between certain processes used to induce hypnotism and traditional knowledge about how to produce a trance state. Indian yogis and the monks of Mount Athos, for example, were known to enter a trance by fixing their gaze on a point.³² The same fact had been (re)discovered in the 1840s by the English physician James Braid, and formed part of the *fin-de-siècle* hypnotizer's repertoire.³³

What Braid had shown was that a subject could enter a *magnétisme*-like 'sleep' state by staring at a shiny object. Since no magnet or magnetic fluid was involved, Braid coined the term 'hypnotism' to designate what he observed.³⁴ In the process, he disproved a claim central to *magnétisme* from Mesmer's day, albeit selectively modified by certain of his successors, namely that the effects provoked by *magnétisme* were due to 'a personal action of the operator on the subject (*opéré*), by the intermediary of a magnetic fluid'.³⁵ For Binet and Féré and Bernheim, the fluid doctrine was self-evidently to be classed among the erroneous 'theories' of *magnétisme*, making Braid just as evidently worth recuperation as a major precursor of scientific hypnotism. Retrospective sanction for

'facts' by the 'initiator of the scientific study of *magnétisme animal*' carried particular weight when it came to bolstering the reality of 1880s' discoveries.

But the point about magnetic fluids aside, Braid appears a very different precursor in our two histories. Each text presents a selective overview of his work, with 'portions of truth' chosen to boost the credibility of its stance in the dispute between Salpêtrière School and Nancy School understandings of hypnotism. Bernheim, whose work at Nancy centred on phenomena of suggestion, accordingly stressed Braid's contributions in that area; the 'doctrine of suggestion' may have had other precursors, but, as Bernheim told it, 'it was only definitively established and demonstrated in 1841 by James Braid'.³⁶ Binet and Féré, in contrast, relegated Braid's use of suggestion to a list of his minor observations.³⁷ 'The most important of his discoveries' for them was, not coincidentally, a fact with a large place in Salpêtrière School accounts of hypnotism: that, when posed into a certain attitude, a cataleptic subject's facial expression would come into harmony with her pose.³⁸

By recovering selected 'portions of truth' from *magnétisme*, therefore, hypnotism researchers furthered two rhetorical aims. On the one hand, they acknowledged the continuities linking their 'science' to its denigrated precursor, and defused criticism of the sort voiced by Mongobert. On the other hand, the histories that they constructed simultaneously functioned to support the reality of hypnotism, both as a broad field of enquiry and as a set of conceptions specific to individual authors or schools.

WONDROUS DIGRESSIONS

Although what counted as a 'truth' of *magnétisme* sometimes varied between authors, Binet and Féré and Bernheim concurred that it was necessary to '[free] ... the question from that mysterious and supernatural appearance which is repellent to the scientific spirit', as Bernheim wrote of one particular suggestive effect.³⁹ *Magnétisme* owes its 'mysterious appearance', in these researchers' accounts, to the ways in which magnetizers interpreted the phenomena they witnessed: that is, in terms of wondrous (*merveilleux*) or supernatural concepts. 'Driven by curiosity for the wondrous and supernatural', investigators, such as those involved in the Husson Commission, 'confuse[d] the question of *magnétisme animal* with the extraordinary and supernatural phenomena announced by the magnetizers'.⁴⁰ For a medical or cultivated public in the 1880s, it went almost without saying that this kind of perspective was unscientific; as Claude Bernard put it, 'the wondrous, the occult, or the supernatural ... must be banished absolutely from all experimental science'.⁴¹ A field, like *magnétisme*, that upheld wondrous theories had no place in positive science; accordingly, to portray the magnetizers' approach to phenomena as wondrous was automatically to consign *magnétisme* outside the bounds of science. Hypnotism, conversely, by separating the phenomena of *magnétisme* from their obscurantist theoretical interpretations, both restored the phenomena to science and asserted its own scientific status.

The story that Binet and Féré and Bernheim tell, then, is one of magnetizers who had the facts before them, but whose way of seeing those facts obscured the portion of truth in their work. Thus any 'truth' observed by the Husson Commission was 'drowned by the chimerical absurdity of the wondrous', as subsequent investigations by the Académie de médecine prioritized the study of extraordinary phenomena, such as the claim that somnambulists could read while blindfolded.⁴² Similarly, although Bernheim praised Faria's 'correct' use of suggestion, he deplored the way that Faria expressed his ideas in 'speeches of bizarre

form, marked with mystical ideas'.⁴³ Even Braid was not exempt from a tendency to be diverted into mysterious paths: for instance, when he undertook a series of experiments into 'phreno-hypnotism' (i.e. a combination of phrenology and hypnotism).⁴⁴ 'Braid erred', as Binet and Féré saw it, 'in ranking together [*mettre sur le même rang*] the demonstrated and the uncertain, the uncertain and pure fantasy'.⁴⁵ With even Braid unable to separate facts from fantastical theories, *magnétisme* as a whole was easily disqualified from scientific status, and demarcated from contemporary work in hypnotism.

What is notable about this strategy is that it bases the demarcation between hypnotism and *magnétisme* on the magnetizers' ideas, rather than on their personal conduct. That is, it abandons (in very large part) the category of charlatan,⁴⁶ employed by Finet in the fictional scene and by many other hypnotism researchers of the 1880s.⁴⁷ This shift is central to acknowledging continuities as well as discontinuities between hypnotism and *magnétisme*. If all the magnetizers were 'charlatans', acting by definition in bad faith, there could be no guarantee that the facts they observed were real; the opposite would have been more likely. By portraying the magnetizers as instead led astray by wondrous theories, Bernheim and Binet and Féré left themselves room to claim certain magnetizers as precursors, and to appropriate the 'facts' they had observed. The magnetizers, then, were not 'mountebanks' seeking to dupe their audience, but dupes of their own attraction to the wondrous.

If this strategy admits that magnetizers may have acted in good faith as they formulated ideas of magnetic fluids or examined phenomena such as transposition of the senses, it makes no allowance for changing conceptions of science or the wondrous. Binet and Féré and Bernheim did not stop to consider whether Mesmer or the Husson Commissioners thought they were doing science, or were attempting to 'banish the wondrous'.⁴⁸ And, to be fair, the sources they consulted and the historical methods of the time did not promote such considerations. The hypnotism researchers' understanding of magnetic 'theories' is as presentist as their framing of the 'facts'. In their view, the facts were all present in *magnétisme*, waiting for someone to apply proper scientific methods in order to recognize them for what they were: 'if *magnétisme animal* did not enter earlier into science, it is from lack of method'.⁴⁹ That the magnetizers did not do so, could only be because they were too incompetent or confused. Binet and Féré depict the magnetizers in these terms through a repetition of the construction '*ne pas savoir*' ('not able to'), with its connotations that the magnetizers simply did not know how to do any better. The Husson Commissioners, for example, 'who certainly saw the natural phenomenon, *were not able* to extricate it from the phantasmagoria which surrounded it'.⁵⁰ Bernheim, for his part, expressed surprise that magnetizers did not think to push their results to their natural conclusion: 'How strange!' he exclaimed, that 'Braid, who first established the unshakeable foundations of the doctrine of suggestion, ... did not consider applying suggestion itself ... to produce [*réaliser*] hypnosis'.⁵¹ What demarcates hypnotism research from *magnétisme*, then, is a proper way of interpreting phenomena, not as wondrous manifestations but as facts to be appreciated for their scientific value.

LIKE ALCHEMY AND CHEMISTRY

Works by Binet and Féré and Bernheim portray *magnétisme* both as unscientific in approach and as containing 'portions of truth'. I would now like to reflect further on whether that means that knowledge is transferred from an 'illegitimate' domain to a 'scientific' one. And what happens to the 'portions of truth' in the process? As I have demonstrated, the 'truths'

recovered from *magnétisme* in these accounts thereby gain the status of facts in positivist theory—once observed, they cannot be destroyed. Framed in this way, the continuities between *magnétisme* and hypnotism are divested of any necessary link to *magnétisme*; they appear not as the product of the magnetizers' intellectual endeavours, but rather as raw materials awaiting the advent of hypnotism to be recognized as scientific objects. Indeed, how could the facts be held to belong to *magnétisme*, when the magnetizers 'were not able' to appreciate what they saw, amid the diversions of 'the surrounding phantasmagoria'? Some facts, moreover, are assigned more than one origin in the hypnotism researchers' histories: they are linked to the practices of fakirs or monks, as well as to those of *magnétisme*.

Once its 'facts' are detached, all that is left to '*magnétisme*', under this logic, is a tendency to pursue extraordinary phenomena and develop wondrous-tinged theories. '*Magnétisme*' becomes a placeholder for all that the hypnotism researchers judge illegitimate and unscientific. 'Hypnotism', by opposition, is presented as a scientific field of study, which addresses the underlying facts, now properly recovered as positive facts, free from the taint of wondrous interpretations. In effect, the demarcation could be crystallized into the very terms '*magnétisme*' and 'hypnotism'.⁵² '*Magnétisme* and hypnotism are, basically, synonymous terms', explained Binet and Féré, referring to the concrete manifestations produced (rather than to the domains of enquiry);⁵³ but *magnétisme* has compromising connotations of 'complex and extraordinary phenomena', whereas 'hypnotism designates exclusively a defined nervous state . . . brought about by processes [which] are known and in no way mysterious'.⁵⁴ Or, as Bernheim put it, 'the word *magnétisme*, born of an erroneous interpretation of the phenomena, has no more *raison d'être*'.⁵⁵

With '*magnétisme*' reframed as the sum of erroneous interpretations, and its facts presented as detachable entities awaiting scientific recuperation, then the only continuity between *magnétisme* and hypnotism admitted in these accounts is the temporal one. Bernheim and Binet and Féré inscribed the progression into the logic of Comtean evolution, perhaps unsurprisingly for scholars influenced by the positivist Bernard. In Binet and Féré's version, this is explicit: 'the marvellous [*merveilleux*] history of *Magnétisme animal* . . . make[s] way for the positive facts of hypnotism'.⁵⁶ Furthermore, the step from *magnétisme* to hypnotism mirrors the evolution of other sciences; as Binet and Féré affirmed, 'we see therefore that hypnotism came out of *magnétisme animal* like the physico-chemical sciences came out of the occult sciences of the Middle Ages'.⁵⁷ Bernheim evinced the same sentiments, inflected by his interest in suggestion: 'Today, *magnétisme* is dead, like alchemy; but hypnotic suggestion was born out of *magnétisme*, like chemistry was born out of alchemy.'⁵⁸ With these analogies, *magnétisme* is neutralized as a threat; it is portrayed as an inevitable step in the evolution of hypnotism as a scientific domain, as necessary to that evolution as alchemy was to chemistry, but as negligible to 1880s' enquiry as alchemy is to nineteenth-century chemistry. Moreover, hypnotism is marked as doubly scientific, because its development runs parallel to that of other incontrovertibly scientific domains. Hypnotism, the *fin-de-siècle* reader was to understand, had now reached an equivalent evolutionary stage to, and was due the same scientific standing as, chemistry.

SCIENTIFIC DUPES?

Hypnotism became scientific, by this telling, through a process of exclusion, by banishing phantasmagoria and wondrous-tinged speculation outside its bounds. In this final section,

I step back inside those bounds to consider briefly the business of legitimate, 'scientific' research into hypnotism. How did rhetorical exclusion of the wondrous (whether it occurred in practice or not)⁵⁹ affect the shape of that research activity, or, more to the point, its perceived shape? After all, the aim of the exercise was to bolster hypnotism's scientificity in the eyes of the cultivated public. Contemporaneous fictional studies of hypnotism are valuable sources in this regard, worth taking seriously, as historians such as Jacqueline Carroy have argued, for their close engagement with hypnotism experiments and their epistemic underpinnings.⁶⁰ One such is Anatole France's 1887 short story 'Monsieur Pigeonneau', the tale of a *savant* diverted outside the boundaries he constructs for his science by the effects of hypnotism and suggestion.

Pigeonneau's 'serious science' is not hypnotism but archaeology, which he demarcates from the 'false science' of history by proclaiming the dangers of applying the imagination to the study of the past. In his view, historians are compromised by a tendency to generalize or speculate, when they should confine themselves to the bare facts of particular archaeological objects. That tendency, *bien entendu*, is absent from scientific archaeology.⁶¹ Pigeonneau thus exerts himself to 'vanquish the imagination', such as when he addresses a public session of the Académies. He considers only a single artefact (a painting showing ancient Egyptian clothing) and approaches the topic with sober restraint, 'introduc[ing] not a single general idea'.⁶² During the lecture, his gaze becomes 'mysteriously riven' to that of a bearded man, whereupon he launches into the realms of the imagination, 'generalizing' and 'poetizing' about female attire in a manner entirely 'contrary to the scientific mindset'.⁶³ His talk concludes to 'enthusiastic applause', notably from the bearded man's companion, Miss Morgan. After several encounters with this beautiful young woman, whose requests Pigeonneau somehow always ends up granting, she demands he write her a *conte* (a fictional tale like a fairy tale). The injunction is repeated in letter form, accompanied by a small oriental cat in a basket. Fascinated by the cat's presence, Pigeonneau's attention wanders from his studies into the realm of the fantastic, until finally, on Epiphany Sunday—a suggestive date—he spends all day writing the requested tale. He has been diverted from scientific rigour into writing not merely *l'histoire* (history) but *une histoire* (a story), and a highly imaginative one at that. On rushing out to deliver the text, he learns from his medical-student nephew Marcel that Miss Morgan enlists hypnotic means 'to make people do foolish things' (*faire des bêtises*).⁶⁴ The bearded man assists her in this, by 'produc[ing] hypnotism and suggestion without contact, without direct action, through the intermediary of an animal'.⁶⁵

Examining Pigeonneau's story, it is clear that his boundary-work bears a striking resemblance to that undertaken by the hypnotism researchers, with science marked off from non-science by its excision of the illusory and fantastical (wondrous interpretations or imaginative generalizations). The similarity extends to the terms in which Pigeonneau expresses this process: 'Who does not know today that the historians preceded the archaeologists, like the astrologers preceded the astronomers, like the alchemists preceded the chemists, like the apes preceded men?'⁶⁶ On a broad level, this parallel points to the importance of Comtean logic in scientific boundary-work at the end of the nineteenth century, in fields from history to archaeology to *magnétisme*. Indeed, some magnetizers enlisted such logic in an attempt to defend the worth of their practices; the stage magnetizer Donato, for instance, lamented the harmful influence of 'thaumaturges' on *magnétisme*, and wished that magnetizers would become 'chemists' rather than 'alchemists'.⁶⁷

More narrowly, Pigeonneau's boundary-work and its subsequent undoing contain a critique of enquiry into hypnotism. Although it also resonates with contemporary debates in French archaeology,⁶⁸ 'Monsieur Pigeonneau' is more clearly 'about' hypnotism and *magnétisme*.⁶⁹ The story is dedicated to Gilbert Augustin-Thierry, author of a novella about hypnotic suggestion, which Anatole France reviewed in *Le Temps* within a few months of publishing 'Monsieur Pigeonneau'.⁷⁰ France used his review, entitled 'L'hypnotisme dans la littérature', to reflect on the 'prodigies' produced by modern science, and its incapacity, through insufficient imagination, to grasp these unknowns.⁷¹ It is not a great stretch to suppose that the same considerations enter into 'Monsieur Pigeonneau'.

The short story inverts the motif in play in Bernheim's and Binet and Féré's accounts of the magnetizers; here, it is Pigeonneau, the respected *savant*, who appears as an incompetent dupe. His name provides a clue to this, as 'pigeon' in French can denote a gullible person, someone easily swindled. Despite his elaborate attempts to excise extra-scientific elements, such as the imagination, from his work, Pigeonneau is diverted from sober facts into wondrous realms. Does he simply submit to the charms of Miss Morgan, or did excluding the imagination provide only an illusion of scientific rigour? The diegesis suggests the latter. Archaeology, as Pigeonneau conceives it, is so rigidly constrained as to dismiss the possibility of examining more than one artefact at a time, while his boast that 'my work has not been sterile' ironically signals the reverse.⁷² What remains inside the boundaries of his science is little more than a sterile diversion. As Miss Morgan asks, 'Of what use would science be then, if it did not serve to tell tales [*faire des contes*]?'⁷³ with the tale standing in for that which convokes the imagination. It is also properly that which allows an experimenter to push on with his or her scientific investigations, in Bernard's view.⁷⁴

By analogy with hypnotism discourse, the pertinent question is then whether strict demarcation of its positive scientific boundaries similarly denies hypnotism the capacity to be a fully productive intellectual endeavour. Notably, did basing the distinction with *magnétisme* on its wondrous-tinged theories also constrain the kinds of theoretical speculation available to, or at least advisable for, hypnotism researchers? For just as Pigeonneau held that to generalize was to 'compromise' his archaeology, Bernheim's and Binet and Féré's boundary-work implies that to theorize about hypnotic 'facts' is to risk straying outside the bounds of positive science; their histories of *magnétisme* show how often the work of interpretation becomes contaminated by the wondrous. The result in Pigeonneau's case is that he will not even compare related archaeological objects. In Bernheim's and Binet and Féré's research, we find something of a similar reluctance to generalize, or a defensiveness when general notions are in question. Binet and Féré declared definitively that 'it is the facts which interest us', and emphasized that they did 'not have the intention to engage ... in the discussion of theories on the mechanism of nervous sleep'.⁷⁵ Their text would, on the contrary, 'follow the characteristics of a purely symptomatic study', and indeed its only identified theoretical contribution concerns the very narrow question of the role of reference points in hypnotic hallucinations.⁷⁶ Bernheim, for his part, qualified his general theory of suggestion (specifically its mechanism) with the insistence that 'this here is only a formula, I know; I do not have the intention to put forward a theory'.⁷⁷ There is ample indication, therefore, that 'Monsieur Pigeonneau' expresses no idle criticism of scientific hypnotism, but rather that the way in which researchers demarcated *magnétisme* from hypnotism also shaped the activity of knowledge production about hypnotism, perhaps to its detriment.

CONCLUSION

In late nineteenth-century France, hypnotism enjoyed a rare legitimacy as a field of scientific enquiry. Nonetheless, researchers engaged in the field were frequently impelled to undertake boundary-work to defend the status of their endeavour. What was at stake was the need to defuse potential criticism of hypnotism as unscientific on account of its associations with the derided *magnétisme animal*, which, having preceded hypnotism as a domain of investigation, bore a pronounced resemblance to its legitimate successor. Researchers had to manage the perception of *magnétisme* as a precursor in a way that acknowledged these similarities, while also marking a clear distinction between the two endeavours. Alfred Binet and Charles Féré of the Salpêtrière School joined Hippolyte Bernheim of Nancy—in the two exemplary texts of 1880s' hypnotism research—in framing the relationship as one of temporal evolution. They retold the history of their field in a way that conformed to the prevailing model of scientific progress and scientific method, namely the positivist principles of Auguste Comte and Claude Bernard. Hypnotism, as the intellectual endeavour to be defended, was likened to developed sciences such as chemistry, while *magnétisme* was relegated to the status of an earlier stage in the progress of science – superseded by the progress of knowledge, just as had been the case with alchemy.

Enquiry into hypnotism, in this story, had succeeded in disentangling the 'portion of truth' present in magnetic phenomena. Such 'truths' are assimilable to the category of 'facts' in Bernardian positivism—immutable and real manifestations of an underlying natural order. If experiments on hypnotism utilized the same procedures or provoked the same phenomena as did the magnetizers, those elements were recuperated as positive facts. To apply this category was to divest such continuities of any illegitimacy, for, by definition, facts are universal and unchanging, such that their successive appearance in *magnétisme* and hypnotism should excite no suspicion. Under this logic, knowledge is not transferred, properly speaking, from the illegitimate into the legitimate endeavour, across the scientific boundary. It simply becomes a matter of 'raw material' exploited differently in each case.

Indeed, it is precisely in their approach to such material that hypnotism and *magnétisme* are marked as sharply discontinuous: *magnétisme* as having a tendency to seek out wondrous explanations and extraordinary manifestations, obscurantist divagations 'repellent' to positive science; hypnotism, by comparison, as sober and rigorous. Binet and Féré and Bernheim strengthened the disjunction by means of the analogy with alchemy and chemistry; the implication was that hypnotism was equally as scientific as the self-evidently scientific chemistry. There is, however, another point implicit in their demarcation strategy, one signalled by Anatole France's short story 'Monsieur Pigeonneau'. Specifically, in excluding *magnétisme* from scientific bounds on account of its wondrous-tinged interpretations, hypnotism researchers also bound themselves in some degree to avoid similar theorizing in their own work. This carried the risk of stifling productive scientific activity, as occurred in the short story.

The critique offered by 'Monsieur Pigeonneau' leads me, finally, to some reflections on the role of fictional texts in historical analysis of 'golden age' hypnotism. In this piece, I have read two such texts more or less as a matter of course, on an equal epistemic footing to their scientific counterparts. If it is possible to write about boundary-work without recourse to the fictional works, they are seen to be far from superfluous, for they do not simply reproduce the science. Rather, they engage critically with its dynamics

and assumptions, and provide valuable insight, in particular, into interactions between cultivated public opinion and researchers' rhetorical moves. There is a case to be made, in consequence, for incorporating fiction more routinely into our historical study of this scientifico-cultural context.

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NOTES

- 1 Jules Claretie, *Les amours d'un interne* (E. Dentu, Paris, 1881), p. 120. All translations are my own. *Magnétisme* can be translated as 'magnetism', but the technique and field of study is more usually known as 'mesmerism' in English. In keeping with my concern for the historical specificity of discourse on hypnotism, I retain the French form *magnétisme* in this paper.
- 2 *Ibid.*, p. 120.
- 3 *Ibid.*, p. 121.
- 4 *Ibid.*
- 5 For the 'golden age', see e.g. Dominique Barrucand, *Histoire de l'hypnose en France* (Presses Universitaires de France, Paris, 1967), p. 3; Jacqueline Carroy, *Hypnose, suggestion et psychologie. L'invention des sujets* (Presses Universitaires de France, Paris, 1991), p. 43; Anne Harrington, 'Metals and magnets in medicine: hysteria, hypnosis and medical culture in *fin-de-siècle* Paris', *Psychol. Med.* **18**, 21–38 (1988), at p. 21. See also (among many others) Jacqueline Carroy, *Les personnalités doubles et multiples: entre science et fiction* (Presses Universitaires de France, Paris, 1993); Henri F. Ellenberger, *The discovery of the unconscious* (Basic Books, New York, 1970); Alan Gauld, *A history of hypnotism* (Cambridge University Press, 1992); Andreas Mayer, *Sites of the unconscious: hypnosis and the emergence of the psychoanalytic setting* (transl. Christopher Barber) (University of Chicago Press, 2013); Régine Plas, *Naissance d'une science humaine: la psychologie. Les psychologues et le 'merveilleux psychique'* (Presses Universitaires de Rennes, 2000).
- 6 Paul Magnin, 'L'hypnotisme à la Faculté de médecine de Paris', *Rev. Hypnotisme* **1**, 151–156 (1886–87); Jean-Martin Charcot, 'Sur les divers états nerveux déterminés par l'hypnotisation chez les hystériques', *C. R. Hebd. Séanc. Acad. Sci. Paris* **94**, 403–405 (1882); Max Dessoir, *Bibliographie des modernen Hypnotismus* (Carl Duncker, Berlin, 1888).
- 7 For a general overview of these episodes, see Gauld, *op. cit.* (note 5), chapters 1 and 7.
- 8 See e.g. A. Ritti, 'Rapport sur le prix Aubanel', *Ann. Médico-Psychol.* **3**, 98–113 (1879), at p. 105; Gilbert Ballet, *L'hypnotisme et la suggestion* (H. Matot fils, Reims, 1887), p. 4. Among others, see also Hippolyte Bernheim, *De la suggestion et de ses applications à la thérapeutique*, 2nd edn (revised and augmented) (Doin, Paris, 1888; reprinted 2005 Elibron Classics), p. 276; Désiré Magloire Bourneville and Paul Regnard, *Iconographie photographique de la Salpêtrière. III* (Bureaux du Progrès Médical et V. A. Delahaye & Lecrosnier, Paris, 1879–80), p. 149; Charles Richet, 'Du somnambulisme provoqué', *J. Anat.; Physiol.* **11**, 348–378 (1875), at p. 348.

- 9 Thomas F. Gieryn, 'Boundary-work and the demarcation of science from non-science: strains and interests in professional ideologies of scientists', *Amer. Sociol. Rev.* **48**, 781–795 (1983); Thomas F. Gieryn, *Cultural boundaries of science: credibility on the line* (University of Chicago Press, 1999).
- 10 Towards the end of the 1880s, pressure grew to ban public demonstrations of hypnotism/*magnétisme* in France, in order to consolidate medical control of the field. See e.g. communications in Edgar Bérillon (ed.), *Premier congrès international de l'hypnotisme expérimental et thérapeutique* (Octave Doin, Paris, 1889), pp. 28–38, 44–56, 359–361.
- 11 On interactions between stage and therapeutic magnetizers in Spain, see Andrea Graus's paper in this special issue. See also Andrea Graus, 'Hypnosis in Spain (1888–1905): from spectacle to medical treatment of mediumship', *Stud. Hist. Philos. Biol. Biomed. Sci. A* **48**, 85–93 (2014); Heather Wolfram, "'An object of vulgar curiosity": legitimizing medical hypnosis in imperial Germany', *J. Hist. Med. Allied Sci.* **67**, 149–176 (2012). Hypnotism in Britain followed a rather different trajectory and had declined as a subject of medical and cultivated interest by the *fin de siècle*: see William Hughes, *That devil's trick: hypnotism and the Victorian popular imagination* (Manchester University Press, 2015); Alison Winter, *Mesmerized: powers of mind in Victorian Britain* (University of Chicago Press, 1998).
- 12 In this, I follow the lead of researchers such as Michael Gordin, and constructivist perspectives in the history of science more broadly. Michael Gordin, *The pseudoscience wars: Immanuel Velikovsky and the birth of the modern fringe* (University of Chicago Press, 2012).
- 13 Carroy, *Hypnose*, *op. cit.* (note 5), pt 1, chapters 1 and 2. For a polemical account of links between *magnétisme* and hypnotism, see Bertrand Méheust, *Somnambulisme et médiumnité*, 2 vols (Synthélabo, Les Empêcheurs de Penser en Rond, Le Plessis–Robinson, 1999).
- 14 Harrington, *op. cit.* (note 5); Plas, *op. cit.* (note 5).
- 15 Alfred Binet and Charles S. Féré, *Le magnétisme animal* (F. Alcan, Paris, 1887); Bernheim, *op. cit.* (note 8). Féré, a physician, was a student, then collaborator, of Jean-Martin Charcot, the celebrated neurologist who headed hypnotism research at the Salpêtrière Hospital in Paris. Binet, although not medically trained, worked with Féré during the mid 1880s. The internist Bernheim was considered to be the chief member of a looser grouping of researchers based in the town of Nancy.
- 16 On their disputes, see Carroy, *Hypnose*, *op. cit.* (note 5), pp. 56–64, 157–166; Mayer, *op. cit.* (note 5), ch. 2; Serge Nicolas, *L'Hypnose. Charcot face à Bernheim. L'École de la Salpêtrière face à l'École de Nancy* (L'Harmattan, Paris, 2004).
- 17 Anatole France, 'Monsieur Pigeonneau', [1887], In *Oeuvres*, vol. 1 (ed. Marie-Claire Bancquart) (Gallimard, Bibliothèque de la Pléiade, Paris, 1984), pp. 603–615.
- 18 The exception was 1880s' magnetizers. Méheust, *op. cit.* (note 13), pp. 533–534.
- 19 Binet and Féré, *op. cit.* (note 15), pp. 10, 17, 20, 51; Bernheim, *op. cit.* (note 8), p. 148.
- 20 Claude Bernard, *Introduction à l'étude de la médecine expérimentale* (J. B. Baillière, Paris, 1865).
- 21 *Ibid.*, pp. 304–313.
- 22 *Ibid.*, pp. 63, 23, 289.
- 23 Charles Féré, 'La médecine d'imagination', *Progrès médical* **14**, 717–718, 741–743, 760–762 (1886), at p. 717.
- 24 Bernheim, *op. cit.* (note 8), p. 150, emphasis added.
- 25 Binet and Féré, *op. cit.* (note 15), p. 28.
- 26 *Ibid.*, p. 115. Specifically, the Commission's description resembles the state of lethargy, one of the three states of hypnotism characterized by the Salpêtrière School.
- 27 Bernheim, *op. cit.* (note 8), p. 154. Also Binet and Féré, *op. cit.* (note 15), p. 22.
- 28 See e.g. Bernheim, *op. cit.* (note 8), p. 13.
- 29 See e.g. Bourneville and Regnard, *op. cit.* (note 8), p. 149; Ballet, *op. cit.* (note 8), p. 4.

- 30 See e.g. Jean-Martin Charcot and Paul Richer, *Les démoniaques dans l'art* (A. Delahaye et E. Lecrosnier, Paris, 1887).
- 31 Pierre-Henri Castel, *La querelle de l'hystérie* (Presses Universitaires de France, Paris, 1998), p. 261.
- 32 Binet and Féré, *op. cit.* (note 15), p. 48; Bernheim, *op. cit.* (note 8), p. 196.
- 33 Binet and Féré, *op. cit.* (note 15), pp. 66, 117; Bernheim, *op. cit.* (note 8), pp. 2–3.
- 34 Binet and Féré, *op. cit.* (note 15), pp. 47–49.
- 35 *Ibid.*, p. 47.
- 36 Bernheim, *op. cit.* (note 8), p. 155.
- 37 Binet and Féré, *op. cit.* (note 15), p. 49.
- 38 *Ibid.*
- 39 Specifically, suggestions executed after a delay (*suggestions à longue échéance*). Bernheim, *op. cit.* (note 8), p. 212.
- 40 Binet and Féré, *op. cit.* (note 15), pp. 27, 28–29.
- 41 Bernard, *op. cit.* (note 20), p. 313. Like Bernard here, texts on hypnotism rarely differentiated between the supernatural, the wondrous, the occult and so on.
- 42 Bernheim, *op. cit.* (note 8), p. 152.
- 43 *Ibid.*, p. 153.
- 44 *Ibid.*, pp. 156–157; Binet and Féré, *op. cit.* (note 15), pp. 50–51.
- 45 Binet and Féré, *op. cit.* (note 15), p. 50.
- 46 For the sole exceptions, see *ibid.*, p. 22; Bernheim, *op. cit.* (note 8), pp. 149, 276.
- 47 See e.g. Bourneville and Regnard, *op. cit.* (note 8), pp. 149, 150, 157; Ballet, *op. cit.* (note 8), p. 4; Richet, *op. cit.* (note 8), p. 348.
- 48 Historians have noted of Mesmer, in particular, that he understood his fluidic theory as a rational, physical explanation for the phenomena, which superseded more mystical theories. Ellenberger, *op. cit.* (note 5), pp. 62–63; Gauld, *op. cit.* (note 5), pp. 1–2, 4, 11.
- 49 Binet and Féré, *op. cit.* (note 15), p. 1.
- 50 *Ibid.*, p. 28, emphasis added. Also *ibid.*, pp. 18, 54.
- 51 Bernheim, *op. cit.* (note 8), p. 289. Similarly, pp. 163, 288–289, 291.
- 52 Though this was complicated by the fact that ‘*magnétisme*’ circulated alongside ‘hypnotism’ and ‘artificial somnambulism’ as a way of denoting the field as a whole. Indeed, Binet and Féré’s work was entitled *Le magnétisme animal*, probably at the request of their publisher.
- 53 Confusingly, each term could denote both a set of phenomena (nervous state, etc.) and the fields of study more broadly.
- 54 Binet and Féré, *op. cit.* (note 15), p. 46.
- 55 Bernheim, *op. cit.* (note 8), p. ix.
- 56 Binet and Féré, *op. cit.* (note 15), p. 40.
- 57 *Ibid.*, p. 46.
- 58 Bernheim, *op. cit.* (note 8), p. 148.
- 59 Much wondrous-seeming activity continued in mainstream hypnotism research, despite this rhetoric, as Plas has shown. Plas, *op. cit.* (note 5).
- 60 Carroy, *Personnalités*, *op. cit.* (note 5); Kim M. Hajek, “‘Je lis ça comme je lirais un roman’: reading scientific works on hypnotism in late nineteenth-century France”, *Australian J. Fr. Stud.* **53**, 232–245 (2016). William Hughes makes a similar case for greater consideration of popular, journalistic sources in writing the history of mesmerism in Britain. Hughes, *op. cit.* (note 11).
- 61 France, *op. cit.* (note 17), pp. 603–604.
- 62 *Ibid.*, p. 604.
- 63 *Ibid.*, p. 606.
- 64 *Ibid.*, p. 615.
- 65 *Ibid.*
- 66 *Ibid.*, p. 604.

- 67 Donato, preface to *La fascination magnétique*, by Edouard Cavailhon, pp. vii–lxx (E. Dentu, Paris, 1882), at pp. liii–liv, xxxvii. Donato even claimed that *magnétisme* deserved serious study because, despite its errors, it also necessarily contained some ‘seeds of truth’ (*germes de vérité*) (p. lxxviii). This, like *fin-de-siècle* magnetizers’ obsession with their history, only serves to support Michael Gordin’s argument that scientific demarcation processes are replicated ‘all the way down’. Gordin, *op. cit.* (note 12), pp. 202–203. I thank Kaat Wils for drawing my attention to the Donato text.
- 68 Vladimir Kapor, ‘La vogue des archéofictions au XIXe siècle: le passé ressucité et le passé interprété’, *Nottingham Fr. Stud.* **51**, 54–65 (2012).
- 69 Marie-Claire Bancquart, notices, notes et variantes to *Œuvres*, by France, *op. cit.* (note 17), pp. 1292, 1294.
- 70 *Ibid.*, p. 1302.
- 71 Anatole France, ‘L’hypnotisme dans la littérature’, [1887], in *La vie littéraire. Première série*, pp. 117–131 (Calmann-Lévy, Paris, 1888).
- 72 France, *op. cit.* (note 17), p. 603.
- 73 *Ibid.*, p. 612.
- 74 Bernard, *op. cit.* (note 20), p. 43.
- 75 Binet and Féré, *op. cit.* (note 15), pp. 125, 77.
- 76 *Ibid.*, p. 77. They term this the ‘théorie du point de repère’ (pp. 176–182).
- 77 Bernheim, *op. cit.* (note 8), p. 195, see also p. 212.