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Résumé de l'article
Cet article analyse la manière dont Benjamin O. Flower, journaliste et éditeur à Boston, usa de la culture de l'imprimé pour diffuser et légitimer la science en marge, dans les années 1890. Se saisissant de la théorie de l'évolution comme d'une matrice du progrès, il considérait l'hypnotisme et le spiritisme – ce qu'il appelait la « recherche psychique » – comme le prolongement naturel, du visible à l'invisible, du méliorisme environnemental. L'article met en lumière la dimension transatlantique de l'idée d'une « science de l'esprit », et la façon dont elle conduisit Flower à formuler une conception spirituelle et matérialiste de l'influence de la culture de l'imprimé. Il décrit les stratégies rhétoriques, les procédés scientifiques et les politiques d'institutionnalisation qu'il adopta dans sa quête pour naturaliser l'invisible et le faire entrer dans le cadre du naturalisme méthodologique. Enfin, il explore les fondements épistémologiques de la redéfinition des frontières de la science que Flower appelait de ses vœux.

Citer cet article
“WHAT IS THE COCOON BUT A DARK CABINET?”
Benjamin O. Flower, Print Culture and the Legitimisation of Fringe Science in the 1890s

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This study examines how Boston editor and publisher Benjamin O. Flower used print culture to circulate and legitimise fringe science in the 1890s. Using evolutionary theory as a template for progress, he considered hypnotism and spiritualism – what he called “psychical research” – as the natural extension of environmental meliorism from the visible to the invisible. This article examines the transatlantic dimension of the idea of a “science of mind” and how it led Flower to formulate a spiritual and materialist conception of the influence of print. It describes the rhetorical strategies, the scientific procedures and institutionalisation policies he adopted in his quest to naturalise the invisible and subject it to the purview of methodological naturalism. Finally, it explores the epistemological foundations of Flower’s redefinition of the boundaries of legitimate science.

Cet article analyse la manière dont Benjamin O. Flower, journaliste et éditeur à Boston, usa de la culture de l'imprimé pour diffuser et légitimer la science en marge, dans les années 1890. Se saisissant de la théorie de l’évolution comme d’une matrice du progrès, il considérait l'hypnotisme et le spiritisme – ce qu’il appelait la « recherche psychique » – comme le prolongement naturel, du visible à l'invisible, du méliorisme environnemental. L’article met en lumière la dimension transatlantique de l'idée d’une « science de l’esprit », et la façon dont elle conduisit Flower à formuler une conception spirituelle et matérialiste de l’influence de la culture de l'imprimé. Il décrit les stratégies rhétoriques, les procédés scientifiques et les politiques d’institutionnalisation qu’il adopta dans sa quête pour naturaliser l'invisible et le faire entrer dans le cadre du naturalisme méthodologique. Enfin, il explore les fondements épistémologiques de la redéfinition des frontières de la science que Flower appelait de ses vœux.
According to Boston editor Benjamin Orange Flower (1858-1918) late nineteenth-century America, racked with urban squalor, labour conflicts, political corruption and arrogant plutocrats, threatened to collapse. Radical reforms such as Populism, woman suffrage, direct legislation, or public ownership of utilities were necessary, but only spiritual regeneration could save the day and move the country forward. Flower turned to the science of his day to legitimise and fulfill this nonconformist vision. His pioneers - whether economic, political or scientific - ranged from respected experts to any sort of panacea-monger and “crank,” to use the common epithet at the time. As far as science was concerned, he relied on mainstream thinkers like Charles Darwin or Herbert Spencer, but also on fringe science. His work raised a major question pertaining to epistemology and power politics: who was to decide who the cranks were and where to draw the limit between science and pseudo-science?

Flower located the new theories he publicised within an evolutionary framework. Spencerian arguments and environmental meliorism provided a scientific backdrop to his “spiritual idealism.” One grand structuring botanical metaphor framed his (pseudo-)scientific theories. Scientific discoveries proved that, from the individual, to cities, the heavens and the hereafter, the world kept improving. Humans, if planted in a fertile ground, could not but grow and ascend toward the light like a “blade of grass” and, living an “existence of eternal progression,” become increasingly “spiritualized” and enlightened. Flower was part of a transatlantic intellectual lineage that straddled religion and science, and sought to gradually rationalise the body/mind relationship and turn it into a legitimate object of science. He combined the century-old theories of German physician Franz A. Mesmer, Scottish investigations of the interactions of the physical with the spiritual, and late nineteenth-century French experiments on the subconscious with American traditions, particularly the spiritualist craze that had been sweeping the country since the mid-century, and even more specifically, the obsession of Bostonians with mediumship. His story is therefore also a story of Boston. Flower and his network were heirs to the genteel activists peopling Henry James’s novel The Bostonians, “all witches and wizards, mediums, and spirit-rappers, and roaring radicals.”

The story of Flower and of his network is also the story of how the definition of “science” was contested at the time. The emergence of
psychology as an academic discipline and the elevation of scientists into an autonomous and self-regulating elite community coexisted and competed with an older American tradition that saw science as a democratic activity and did not separate amateurs and experts into distinct spheres of competence. Both types of scientists took part in the transformation of the “popular psychology” of “animal magnetism” (Mesmer’s key concept) into the new experimental psychology of the subconscious. However, for Flower (himself an amateur) and his network (a mixture of non-professional and established, albeit “fringe,” scientists), a “natural” explanation ruled out supernaturalism but it did not exclude religion. Phenomena could be “both natural and religious.” That interpretation clashed with the secular understanding of the new professional class of scientists.5

Far from the “secularisation thesis” (which posits the gradual decline of religion with modernisation) and the “conflict thesis” (which opposes science and religion), Flower’s syncretic approach asserted that the more science advanced, the more it validated religious beliefs. The vanguard of scientific discoveries were in line with the spiritualising of religious thought, or what Catherine Albanese calls “metaphysical religions.” 6 Mind and its powers – how it interacted with its environment – lay at the core of his vision. As a result, social ills and religious sins were read in therapeutic terms; both the individual and social body could be cured, and the remedy for Flower centered upon the new religio-scientific bricolage that he disseminated in print. “Psychical research” in particular represented the latest stage in the Spencerian evolution of science and belief.7 Flower questioned its marginality and wanted to prove that “fringe” – or “cranky” – meant “ahead of its times” and “moral/ uncorrupted.”

Opening up a respectable, slick magazine to unorthodox ideas was for Flower part of the remedy. He created The Arena, a “multiple-crusade magazine of general circulation” and a “journal of protest,” in Boston in December 1889.8 He edited it from 1889 to 1896 and then from 1900 to 1909. Psychical research featured regularly in his editorials. His company, “a standard for the radical publisher in America,” published 206 imprints until it went bankrupt in 1896, issuing books that “commercial houses would not risk.”9 Among them, 16 dealt with fringe theories (appendix 1). Flower could focus all of his energy on regenerating the country, and he was able to put his principles before money because his publications and organisations
were funded by his brother, Richard, who had made a fortune thanks to a flourishing medical practice in Boston, and Gideon F.T. Reed, a “firm Spiritualist” who invested much of the money he had earned as a partner at Tiffany & Co. on Flower’s visions of a “New Day.”

Following Flower’s botanical metaphor, this study examines the American, British and French precedents Flower built upon to put forward his own version of a science of mind, spiritually re-engineer America and redefine the boundaries of legitimate science.

**Mind: Hypnotism, “The Scientific Sensation of the Hour”**

Flower was “the most forceful exponent of the occult-tinged, pro-‘woman,’ reform-Darwinist perspective” that historian Beryl Satter calls “evolutionary republicanism,” or, in other words, the idea that race perfection could save the republic. Like many Progressives, Flower thought that modifying the environment could improve the “race” and solve the problems of modern, industrial cities. That is the “measureless influence” of home (“the fountain” of morality according to Flower), municipal housing, model tenements, public parks and playgrounds could regenerate their inhabitants, thereby putting an end to the diseases cursing American cities and homes: poverty, immorality, and criminality. Flower extended the domain of environmental determinism and its therapeutic rhetoric beyond its urban setting and applied it to women’s wombs. He published, for example, Sydney B. Elliot’s *Aedoeology*, i.e. the science of prenatal influences. Elliot and Flower believed that mothers’ “mental impressions” literally determined the future of their children, and, so their logic went, of the nation. Flower favoured a printing and photography metaphor to convey the idea that women’s wombs were the foundational locus of environmental meliorism – mothers had to impress the “plastic” minds of children with uplifting ideas, just like the duty of reform journalists was to impress readers with progressive ideas.

According to Flower, one way to improve society and humankind was to spiritually engineer a morally regenerated individual thanks to the power of mind. Psychical research, notably spiritualism and mesmerism, was the key; it continued the progressive imprinting work started with *Aedoeology*. In contrast, materialism and commercialism retarded the spiritual development
of the nation. Manipulations by designing politicians and plutocrats, as well as misrepresentations by the sensationalist press, misprinted citizens’ minds, so to speak. Flower’s remedy was to publicise the forward-looking “thought-molders” of his time.\textsuperscript{17} He took the term literally. Intellectuals, scientists and reformers embodied the power of mind over other minds – they could \textit{impress} uplifting ideas onto their readers. Flower perpetuated a long tradition that had started with Mesmer’s “animal magnetism” and continued with American spiritualist Andrew Jackson Davis’s principle of “invisible causation” – a spiritual fluid, “an omnipresent, unifying force in the universe that was simultaneously scientific and religious,” flowed from one being to another.\textsuperscript{18} He adapted this notion to the dissemination of ideas in society, thereby blending occult and medical discourses. Journalists acted as media and (spiritualist) mediums who interpreted new knowledge for the laity, and circulated healthy ideas “that may infect others” as Flower put it: “thought is contagious and people are thinking.”\textsuperscript{19}

Flower believed that, like other reformist ideas, scientific discoveries followed a typical evolutionary pattern. They were at first sneered at and “bitterly contested by those who ‘knew they knew’ that pioneer thinkers were mistaken,” but breakthroughs were eventually accepted once “physical science” had triumphed “over inherited ideas.” This is what had happened to Copernicus and Darwin.\textsuperscript{20} The press actuated this process. Flower wanted to do the same thing for mesmerism and spiritualism by applying the scientific method to the “possibilities of the human mind.” Not only had the mind power over other minds, but it also had “absolute power” over matter.\textsuperscript{21} Flower referred to William James’s work on “The Hidden Self” and French psychologist Pierre Janet’s thesis in \textit{De l’automatisme psychologique} as scientific evidence that disease could result from the “development of a fear arising from mental pictures photographed on the mind in former years.”\textsuperscript{22} In the same article, Flower expounded what psychical research owed to other French experimenters. Pr. J. Luys in Paris had successfully established the “power of hypnotism to bring out the hidden, unsuspected treasures of the mind,” and argued that its untapped resources could be harnessed to control the body.\textsuperscript{23} Hypnotism could abolish sensation and anaesthetise patients, as shown by French neurologists Jean-Martin Charcot and Hippolyte Bernheim. Charcot even demonstrated the power of mental suggestion over the body in a waking condition. In one experiment, study subjects were mesmerised into thinking that boiling water
was being poured onto them. They subsequently presented all the symptoms of burn injuries, although the water was actually cold. Flower also summed up the many experiments conducted by the French hypnosis-centered Nancy school of neurology and psychotherapy. The Nancy school originated with Ambroise-Auguste Liébeault’s work. He developed his medical approach to hypnosis by working on “animal magnetism.” A whole genealogy of the cooptation of occult phenomena by science can be traced from Mesmer to Liébeault and his partner Bernheim, and then onto more neurological (i.e. materialist) or psychotherapeutic approaches (i.e. spiritual, or mental, to use the word, devoid of any supernatural connotation, that early psychotherapists preferred). With psychical research, Flower refused to separate the spiritual (i.e. both mental and religious) from the materialist approaches. In his writings he moved seamlessly from the different meanings of “spiritual;” i.e. relating to the mind, to religion and to non-materialistic values. He did not take a stand on the debate between Charcot, who saw hypnosis as a physiological state, and the Nancy school, which considered it to be first and foremost psychological. Adapting French research to pragmatic ends, Flower did not so much alter these competing ideas. Rather, he lumped them together and recontextualised them. He did not so much conduct science and study the mind as use the prestige of science to push for his spiritual reform agenda.

The end of the nineteenth century saw not only a tentative (and temporary) reconciliation between religion and evolutionary science in reform circles, but also the increasing professionalisation of science. As a result, its very definition was in flux. The concepts “psychical,” “psychological,” and “neurological” were fluid terms, especially when it came to such an intangible object as the mind. Flower, for example, spoke of “psychical research” and sometimes of “psychological science.” The disciplines were not yet completely separated. Established scientists were starting to push for the modernisation, standardisation, and professionalisation of their activity and “create[d] a new role for themselves as guardians of the scientific worldview” by imposing a strict demarcation between genuine science and pseudo-science. Flower and his network of intellectuals, on the contrary, wanted to subject this grey area to scientific scrutiny. Flower objected to the “pseudo-scientific” label. For him, conservative intellectuals feared innovations because they threatened their status, just like Populist reforms endangered plutocrats’ domination. He asserted: “in the twilight zone of
belief, speculation, theory, and experimentation, privilege seeks to shackle nonconformist thought to outlaw the scientist, the philosopher, and the apostle of new truths, whose methods of practice do not conform to the dogmas of the privilege-bulwarked class.”30 According to Flower, to dismiss pioneers as “cranky” was merely a way of maintaining their position of power. Because of “conventionalism,” conservative thinkers were therefore “slow to examine or give credence to anything which runs counter to accepted opinions or ancient thought.”31

New theories had to be examined by using “critical methods in investigation” before being judged as non-scientific.32 Since scientific advances kept broadening the field of knowledge, there was no reason to dismiss phenomena a priori, however unusual and unbelievable they might seem. For Flower, “a true scientist will take cognizance of the smallest facts” and conduct “careful, impartial, and exhaustive investigations.”33 Like William James, Flower also wondered why invisible experience ought to be ruled out since there were invisible things in the physical world.34 Flower remarked:

it is almost impossible for a physicist to accept a result of any experiment one factor of which is the human soul […] He will admit that he knows nothing of an acid or a salt – except that it does so and so; but when he witnesses a series of spirit phenomena he is quick to deny the reality of what he sees.35

As French astronomer Camille Flammarion, a regular contributor to The Arena, advised: “let us deny nothing positively; let us study; let us examine; the explanation will come later.”36

Flower never challenged the authority of science. On the contrary, he celebrated the “modern method of scientific inquiry” and employed arguments from authority figures.37 He used the ideas of respectable scientists like Flammarion, James, Janet and Charcot, to name but a few, to legitimise what some perceived as cranky. He merely reversed the roles: he denounced established scientists who corrupted and distorted the scientific method, thereby indulging in pseudo-science, while he praised fearless investigators who embodied the true spirit of scientific inquiry and refuted the widespread “hostility of dominant thought.”38 For Flower, scientists were Promethean figures, “torch-bearers of advance thought.”39
– both scientific and religious – fraud, and the credulity of the masses accounted for mainstream opposition and that, for Flower, “prevent[ed] a candid and unbiased investigation of facts.” The episode of the so-called Bailly Commission in France in 1784 was a case in point. It had exposed and ridiculed the “overheated imagination of the mesmerists.” According to Flower, the Commission, a classic example of unscientific treatment, took its toll on psychical research since its effects could be felt into the 1890s, even though it had clearly been prejudiced. On the contrary, the end of the nineteenth century featured “eminent scientific thinkers” who had scientifically demonstrated Mesmer’s intuitions. Early psychical research gave “surprising and definite results.” Stating that “the impossible is now demonstrated actuality,” he urged scientists to further explore the unknown territory of mind. Particularly telling for Flower were stories of conversion. Some “revelations” proved critics wrong. Scottish physician and surgeon James Braid, for example, started experimenting “to expose mesmerism,” but he ended up demonstrating that it was a fact, as if he had been “converted” by the scientific method, so to speak. His 1843 book _Neurypnology_ was a tribute to the empirical method which always, sooner or later, triumphed over conservatism. The new treatment of psychical phenomena then demanded a name-change to adapt to its new scientific aura. New spiritualties had to be translated into an acceptable scientific idiom, which is why, according to Flower, Braid renamed mesmerism as “hypnotism.”

After the age of electricity, Flower believed scientists were entering “the age of psychological discovery,” which was a new field based on the “willingness to recognize phenomena other than material.” Scientific advances implied spiritualisation, discoveries “of inestimable value to the race,” and therefore moral progress. The possibilities of the human mind revealed by research were “prophetic of the next great step in man’s evolution.” Flower published utopian novels that made readers see this “next great step” – what Flower called the “grander ideal” – come true. In the 1890s, hypnotism was thought of as the passageway into utopia, thus revealing how deeply it shaped late nineteenth century imaginations. Edward Bellamy’s 1889 bestseller _Looking Backward_ had been the first work to use the hypnotism motif. Flower published its sequel _Young West_, and another utopian novel, _Earth Revisited_ – novels in which hypnotism also enables ordinary Americans to escape from the corruption of the Gilded Age and
awaken into a scientifically-organized and spirituality-arousing paradise. Unlike eighteenth century novels, in which travellers often arrived in utopias because of natural disasters, utopian travellers in novels published by Flower are mesmerised into a model America; their arrival is often described as a literal and symbolical “awakening.” The material book itself becomes the medium – or hypnotist – that rouses readers, and the new scientific field of hypnotism is “the moral agent” and the instrument of the awakening of “sleeping consciences.” The book literally made people see, all the more so in the case of Young West which materialised this innovative program. In his “Publishers’ Notice,” Flower called the attention of readers to “a novel feature in book-making”: coloured margins (figures 1 and 2). Green, blue or yellow margins were first meant to relieve eyestrain. They were recommended by medical science and common sense. Coloured margins also, literally, made readers see the message of the book. For Flower, the medium, then, is also the message. The innovative materiality of the novel and the hypnosis-induced passage into utopia stand for a message of scientifically driven personal and social regeneration. Likewise, Flower equated the educational mission of The Arena with hypnotism; both were thought of in therapeutic terms. The uplifting power of his magazine work could stop the disease-breeding corruption of greed, vice and materialism.

Flower also depicted the reformer as a hypnotist, in other words as a secularised, scientifically-informed minister who appropriated the “awakening” trope and updated the traditionally religious and personal Great Awakenings to the scientific age.

YOUNG WEST,

A Sequel to
Edward Bellamy’s Celebrated Novel
LOOKING BACKWARD.

By
SOLOMON SCHINDLER.

Boston:
ARENA PUBLISHING COMPANY,
Copley Square,
1894.
Figure 1 and 2: Title page of Solomon Schindler’s *Young West*. In Bellamy’s novel, Julian West, the main protagonist, is mesmerised, falls asleep and wakes up in the year 2000. On page 7 of Schindler’s sequel, Dr. Leete (probably a pun on Lethe) manages to wake the utopian traveller by using mesmerism. After experiencing a symbolical death in a corrupt American, he comes back to life regenerated thanks to the “medical inventions and discoveries of the nineteenth century.” Reprinted by permission of David M. Rubenstein Rare Book & Manuscript Library, Duke University.

Flower believed that print culture proved that “cranks” were actually pioneering scientists. In the ensuing public and scholarly debate – a PR campaign, actually – his magazine and publishing company were key elements, and rhetoric was his weapon, hence the name-change, the use of arguments from authority, and the emphasis on the scientific method.
Flower’s campaign of legitimisation extended to other psychical phenomena. Given that mesmerism had been accepted by science, other “exiled truths” demanded “a fair hearing.” Phenomena like telepathy (“thought transference”), clairvoyance (“soul projection”), and automatic writing had to be “authoritatively demonstrated by critical comparative methods as other universally accepted truths in physical science.” The legal overtones in his articles are obvious. He insisted on evidence, and wanted to make a case and present facts to two juries: the scientific community and American citizens in general. For instance, according to Flower, telepathy, considered a “fraud” in the 1880s, had been established as a fact by the 1890s. Spiritualism was another battleground, and since it posited that the mind could reach into the hereafter it was contested by both clergymen and scientists.

**The Hereafter: Spiritualism as Psychical Research**

Flower defined spiritualism as the possibility, “under certain circumstances,” for “the spirits of those we call dead to manifest to the living.” For him, spiritualism was but the extension of Spencerian evolution into the hereafter. Natural laws implied “an existence of eternal progression” and there was no reason for him not to apply them to the spiritual world. He asserted: “inside of thirty years,” life after death could be “positively demonstrated to the majority of honest truth-seekers as any other scientific facts.” “Orthodox physical scientists,” however, reduced spiritualism to fringe science, just like churchmen reduced it to “demonism.” Flower used print to prove the naysayers wrong. He frequently quoted Victor Hugo to condemn “scientists for their unscientific treatment of this subject”; as the French writer said: “to replace inquiry by mockery is very convenient, but not very scientific.” Because of the power of prejudice among hostile scientists, and because of the widespread fraud among mediums, it was necessary to prove what was true, and to expose fraud, while reinstituting the scientific approach that other scientists overlooked and sometimes perverted. Flower equated science with a “sifting process,” in other words the ability to authenticate or expose phenomena.

Flower thought of science in democratic and legalistic terms. He conflated the ideals and methods of science with those of courts of law and of the USA itself – only out of open debates could truth and consensus be found,
in other words “e pluribus unum,” applied to epistemology. He claimed that it was “only in the crucible of free discussion that we find the gold of truth” and the role of the press – the “real congress and senate of the people” – was to organise and accelerate this alchemical process. Flower’s ideas had been shaped by the nineteenth century tradition of Baconian science, as interpreted by Common Sense philosophy. The Baconian inductive method relied on sense data and common sense implied that citizens, expert or not, could see the facts plainly and reach an impartial conclusion by sharing their perspectives. He argued that anyone with an open mind could clearly see the facts, whether in the physical world or in the Bible, just as anyone with eyesight could see a tree. It followed then, at least in his mind, that scientific knowledge could be democratised. In Flower’s opinion, this tradition opposed neither science and religion nor scientific and popular knowledge. True science consisted of the unbiased observation of the plainly observable facts of nature. Professionalisation and democratisation could go hand in hand. The lyceum lecture circuit and local newspapers popularised eminent scientists’ discoveries, thus facilitating the extension of science to the laity. At the end of the century, increasingly professionalised scientists, i.e. college-educated specialists working in laboratories, challenged this continuum between amateurism and expertise. Flower treasured the continuum and wanted to maintain the bridge between experts and the people. Just like juries who, under the guidance of professional judges, could understand what was at stake in a trial, or like citizens who, under the guidance of professional journalists, could understand politics, lay people could take part in scientific debates under the guidance of professional scientists. He believed that the press played the role of the bridge – the medium that democratised expert knowledge.

Flower did not reduce “science” to the study of “the phenomena of the physical universe,” the naturalistic modern definition that was gradually being established and imposed top-down by professional societies. Rather, he used the early nineteenth century meaning of “science” as “knowledge” and extended the definition of “nature.” He also focused less on objects than on method. The scientific method meant, first of all, to be willing to conduct open, unbiased investigations of phenomena, even if, as William James had emphasised, this “radical empiricism” meant dealing with “all sorts of despised spiritualistic and unscientific ideas.” Flower investigated psychical phenomena all his life. His idea was to “classify well-authenticated
facts,” accumulate “reliable data” and study “underlying laws,” in other words to apply positivism to a new scientific field. As he put it: “when we obtain a sufficient volume of sifted facts, the explanation will follow.” Researchers ought not “to state conclusions and seek to bend evidence to fit [their] theories.” He optimistically believed that “earnest, sympathetic, and scientific investigation will in time reveal the truth.” In court-like debates, Flower took a stand, writing brief-like articles to plead the cause of psychical research. He used the same rhetorical strategies as for other psychical phenomena. “Spiritualism” became “psychical research,” a more scientifically acceptable phrase. Spiritualism had declined as a popular phenomenon since reaching its highpoint in the 1850s. However, it had moved on to another stage, one of systematic investigation by world-famous “authorities” and professional organizations such as the English Society for Psychical Research (founded in 1882) and its American branch, the American Society for Psychical Research (initiated in 1885 by William James, psychologist G. Stanley Hall and pragmatist philosopher Charles S. Peirce among others).

With regards to hypnotism, Flower’s network spanned the Atlantic. It formed an alternative “community of inquiry” that wanted to expand the bounds of knowledge. Flower published many articles by Camille Flammarion and by British naturalist Alfred Russell Wallace, co-discoverer of evolution with Darwin, as a way of showing that scientific investigations had proven spiritualism. Wallace was the only scientist to be the focus of an entire chapter of Flower’s memoirs. A social reformer as well as an eminent evolutionist, he represented the authority of legitimate science in Flower’s writings. He epitomised the scientist who, because he kept “his mind open to the truth,” had moved from agnosticism to spiritualism. Flower also circulated writings by his network of intellectuals and friends, all of whom shared the same scientifisco-religious outlook. Among them were Unitarian minister Rev. Minot J. Savage, novelist Hamlin Garland, Rabbi Solomon Schindler (who wrote the sequel to Bellamy’s utopia published by Flower), and physician and educator Joseph R. Buchanan, the only professional scientist in the group. Most of them belonged to the Boston middle-class, the “medium-mad Bostonians” to use G. Stanley Hall’s phrase.
Flower sought to professionalise and institutionalise their experiments by setting up a scientific organisation, the American Psychical Society (APS). Its purpose was the “investigation of the phenomena of Modern spiritualism in accordance with the scientific method.” He explicitly modeled the APS on the English Society for Psychical Research and saw it as the spiritual heir of that society, especially as, by 1890, its American branch had ceased as an independent organisation. He also thought that the American Society for Psychical Research had treated spiritualism from an overly sceptical standpoint. Flower became the APS Vice-President, while Savage, then Garland and eventually Tufts College physics professor Amos E. Dolbear presided over the society.

With Savage, Garland, Buchanan, and the Unitarian Rev. T.E. Allen, Flower also founded a scientific journal in 1892, *The Psychical Review. A Quarterly Journal of the Psychical Science and Organ of the American Psychical Society*, which became part of a clubbing offer with *The Arena*. The founders presented the journal as an “authoritative compendium of psychical news” from the “ablest scientific contributors.” From August 1892 to May 1894, they studied séances and psychography/automatic writing. The field experiments they conducted exemplified the scientific method. Careful observation, empiricism, emphasis upon facts before theories, proof by demonstration, and the classification of facts were supplemented by strict protocols established to avoid fraud. For instance, they fastened the medium’s hands to their chairs and experimenters held silk thread to feel any suspicious movement. Flower also encouraged Garland to study séances held in Onset Bay, MA, near Cape Cod, a seashore resort centre for spiritualists. All of the experiments were related in the journal. It was also important for Flower that some of his researchers be sceptical “to counteract the credulity” of Savage or his own biases, and that they not be bereaved. He wanted no “emotional bias” to interfere with their research. Schindler, Dolbear, and Garland played this role. Garland was won over by the many successful experiments carried out by the society. The new convert then devoted most of the rest of his life to psychic research.

Flower’s push for professional leadership testified to his determination to rationalise the “spiritual hothouse” that had agitated nineteenth century America and to raise the popular experiments that had heretofore characterised the “village enlightenment” to the status of unimpeachable,
global-scale science. This normalisation process led to the organisation of a “Psychical Science Congress” as part of the World’s Columbian Exposition. For psychical researchers, the idea was to “make the exposition complete” by adding spiritual innovations to technological advances; progress necessitated both. APS researchers’ discourses about spiritual energy were also informed by scientific and technological innovations of the time. For example, in one experiment report, Flower compared a psychic’s trance to a “telegraph sounder” and “an electric battery”; her “body suggested a human dynamo.” The telegraph and the first tests of wireless telegraphy permeated their writings. They “disclosed a world of invisible forces that were able to act on physical reality without any apparent physical contact.”

Flower thought scientists had to study these forces. As Savage put it, with a telegram, it was after all impossible to confirm with one’s own senses “the veracity of the sender.” Likewise, with spiritualism, what mattered more was not the “veracity” of the source, but “to know whether I really get a message” (Savage’s emphasis). Flower argued that since absolute certainty was impossible to reach, common sense demanded a pragmatic attitude. For him, science was a way to formalise this attitude.

Savage was “perhaps the first clergyman in America to accept evolution from the pulpit and attempt to reconcile religious and theological thinking in its light.” Like Flower, Savage believed that there was an “irrepressible conflict between two world-theories” – natural evolution and scientifically-engineered religious reforms that were opening “vistas of eternal progress” on the one hand, and, on the other hand, the orthodoxy of Bible literalists and narrow-minded scientists, i.e. artificial and reactionary hindrances that were bound to go extinct. Savage extended his Darwin-based evolutionist optimism into the hereafter, and preached a faith in personal survival after death. He was willing to investigate new phenomena, and he embodied the “careful, critical spirit of modern science.” Flower hailed Savage’s book on psychical research, *Psychics: Facts and Theories*, as “the most important recent work on psychical research.” He claimed that the book described remarkable phenomena and gave “unimpeachable” evidence. It was dedicated to the “unprejudiced” William James. Like Flower, Savage believed that if all inquirers were as fair as the renowned philosopher and scientist, then speedy results would follow. Like Flower, Savage was a Unitarian, and the meetings of the American Psychical Society took place at his Church of the Unity in Boston. For both, Unitarianism and the
alternative sciences they championed boiled down to one principle: “truth for authority rather than authority for truth.” In other words, the two men privileged experimental, empirical, inductive methods of scientific inquiry over orthodoxy and dogmatism, broad-mindedness over prejudice. Both saw the limit between science and beliefs as definitely porous. Flower identified the boundary between science and pseudo-science in terms of methodology and attitude rather than in terms of objects.

“*The Ascent of Life*: Scientifically Driven Ethics and the Naturalisation of Psychic Laws

In addition to Spencer, Buchanan was a major influence on Flower. Buchanan had showed Flower that it was possible to study the mind scientifically. Buchanan’s books featured high in the “important works for thinkers” section of Flower’s *Arena Literary Bulletin*. According to Buchanan, geologists analysed traces of the past – mineral fossils – to “explore the history of the earth”. Psychologists were their counterpart for the mind. They used a “mental telescope” to study “mental fossils” and to “explore the history of man.” According to *The New York Times*, Buchanan had demonstrated that “the sympathy between the mind and body is an exact science, and to this he had given the name of sarcognomy” and devised a method – “psychometry” – to measure the soul and to “determine the mental influence of persons” and “the psychic influence of any manuscript.” A reaction against phrenologists’ static conception of the brain, Buchanan’s principle of “impressibility” posited that the mind was constantly responding to outside physical and mental stimuli, i.e. “an active agent in constant rapport with the surrounding environment.” Flower’s conception of “thought-molders” and of the awakening power of print may well be traced back to Buchanan’s work. Flower took for granted that his readers understood Buchanan’s theories as shown by his many references to them in his editorials without additional explanation. Like Buchanan, Flower sought to apply the scientific method to intangible objects. Like Buchanan, Flower thought that the discoveries being made on the fringe of matter and spirit could revolutionise science.

For Flower, psychical research was also important in the history of science for it rationalised what was formerly considered supernaturalism and superstitions. Likewise, Buchanan described his aim as “bringing the
Flammarion concurred: “the scientific spirit of our age seeks with reason to clear all these facts from the delusive mists of supernaturalism, considering that there is really nothing supernatural and that nature, whose domain is infinite, embraces everything.” For established scientists, psychical research was invalid because, by its very definition, it blurred the boundary between matter and spirit. For Flower, psychical research testified to the power of science to conquer uncharted territories. Flower turned the secularisation thesis upside down. Driven by scientific advances, religion became increasingly secular and, at the same time, increasingly spiritual. Flower actually sought to demonstrate religion scientifically and to show that cutting-edge science and religion merged: “the great physical scientists have given man a new bible of biological truths, while psychologists and students of psychical science are opening to us year by year a new world in the realm of mind and are laying the foundation for a scientific religion.” Unitarianism had already “broadened and humanized the Christian faith” and transformed it from an austere religion of dogmas and creeds into a reservoir of moral values. Psychical research was its logical continuation. Appropriating the language of Spencerian evolution, as well as that of thermodynamics, Flower defined “the coming religion” as a psychical, yet material, force pervading the universe, an update of Mesmer’s magnetic fluid with a positivist twist. God became naturalised as “Love and Life-Essence of the universe […], a wise, order-loving, and conscious Energy, which through the tireless ages, step by step, leads life from the lowest forms on to heaven-inspiring man,” and which expressed itself “through immutable law.” Spiritual growth, a democratized Ascension, was understood as a natural phenomenon, as humans were “drawn to Him as the sun draws upward the germination seed.”

Flower, therefore, sought to extend the domain of physical science into the invisible world – “nature” encompassed more than matter. Since the sixteenth century, science had naturalised the visible, material world. In an age fascinated with “invisible force,” the next logical stage was to submit “unknown natural forces” to the experimental method. The aim was to naturalise the invisible, so that it fell within the purview of “methodological naturalism,” that is, the notion that scientists should explain nature without recourse to the supernatural. Moreover, Flower denounced what James called “authoritative scientism,” the notion that scientists could decide
which objects were worthy to be studied and “rule out some phenomena as impossible a priori.” On the contrary, Flower wanted to demonstrate that new discoveries about psychical laws could be studied scientifically.\textsuperscript{111} For him, Henry Drummond, a Scottish evangelist and a natural scientist, had proved that natural law extended from the physical world to the spiritual world. In 1883, Drummond had published \textit{Natural Law in the Spiritual World}, a work in which Drummond argued that “the scientific principle of continuity extended from the physical world to the spiritual.”\textsuperscript{112} He claimed that spiritual and natural laws were equivalent: it was “not a question of analogy but of Identity.”\textsuperscript{113} In 1893, Drummond’s \textit{Lectures on the Ascent of Man} placed altruism at the core of the survival of the fittest. For Flower, Drummond showed that “in proportion as love permeates the soul of man, he becomes godlike, and he makes life around him bright and fragrant.”\textsuperscript{114} In accordance with the perennial botanical metaphor, spiritual evolution was thought of in naturalistic terms. From then on, Flower often referred to the “law of love,” which he understood as a scientific, positivistic law.\textsuperscript{115} It became a staple of his rhetoric, a scientific update on the biblical Golden Rule, and his way of expressing the spiritual engineering he envisioned to reform and improve America.

Stinson Jarvis, a Canadian expatriate in New York, expounded on this plant-like spiritual and scientifically-driven ascent of mankind in his book \textit{The Ascent of Life; or, Psychic Laws and Forces in Nature}. Flower published Jarvis’ work in instalments and then in book form from December 1893 to May 1894.\textsuperscript{116} He hailed it as a “monumental contribution to modern thought” which improved upon Darwin: Jarvis “takes up the thread where the great naturalist dropped it, and carries it further.”\textsuperscript{117} For Flower, Jarvis’ book was another example of how psychic energy “tended to lift the mind of man from gross materialism to contemplation of the power of mind.”\textsuperscript{118} The soul evolved, developed from within and upward, soaring through operations of clairvoyance and mesmerism. According to Flower, Jarvis “confine[d] his methods to the limits which strict science require[d],” relying on hypotheses, observation, reason, and experimentation. Flower agreed with Jarvis’ conviction that “the strictest science must extend its own methods into immaterial regions.”\textsuperscript{119} In Flower’s opinion, Jarvis confirmed Drummond’s ideas and proved that there existed “no jumps or chasms” in nature, only the continuity of universal laws from the worm to spiritual life, “the latest and highest known grade of life.”\textsuperscript{120} Jarvis therefore gave the “first chart of
an untravelled region” – that of the psyche – and, unlike any other book before, produced “actual proof of a life after human death” (Flower’s emphasis). Jarvis took pains to present his findings as natural, devoid of any trace of supernaturalism. According to Flower, Jarvis’s conclusions did not “collide” with religion or science, but took “a new and further ground for both.” Jarvis’s book was actually a product of the “therapeutic cult” of New Thought (i.e. mind cure), another “Boston craze.” The transatlantic dissemination of fringe science in Flower’s publications thus reveals how he “spiritualized” science. Flower optimistically believed in science as a democratic, pragmatic activity that could “awaken” America and bring in utopia. He also perpetuated the New England tradition of mental healing which was, as Nick Mount has shown, rooted in the mid-century activities of mesmerist healer Phineas Parkhurst Quimby and popularised by the 1890s by Christian Scientists and a host of metaphysical healers in Boston. This tradition provided a fertile ground for the acculturation of European experiments. Flower set French psychological research and British mind/body experiments into that fertile ground, thus turning the “science of mind” into therapeutic spiritualities with an aura of scientism, like New Thought.

“What is the cocoon but a dark cabinet?”: Science as Belief

Science was the legitimising tool at the turn of the century, even within religious circles. One problem remained though: who was to decide what was scientific or not? Flower took up the challenge and considered the epistemological foundations of science. More than a method, science was a way of looking at the world. That is why he considered books, particularly utopias, and his editorials, as the materialisation and fictionalisation of that particular way of looking at the world. No wonder, then, that he resorted to Common Sense philosophy, as its theory of perception determined its reasoning method:

The methods of modern physical science have been of inconceivable value to humanity although they have not succeeded in broadening the vision of some physicists who are, I think, inclined to be as narrow and conservative in their views as certain theologians who assail the new discoveries in the field of physical science. It seems to be impossible for these scientists to see
anything beyond matter, so that they, through “unlimited scepticism,” are rendered as thoroughly incompetent to investigate psychical phenomena as are those whose credulity blinds them to the value of employing critical methods in investigation (Flower’s emphases).126

Flower often quoted Common Sense philosopher Dugald Stewart (1753-1828) who asserted: “unlimited scepticism is equally the child of imbecility, as implicit credulity.” Stewart had studied the Bailly Commission’s report of mesmerism, and that is why James Braid used this quote as the epigraph of his 1843 book Neurypnology. Both developed a “doctrine of the bond between mind and body,” what Braid called “psycho-physiology.”127 For Flower, the Bailly Commission was indeed a historical “object-lesson” in “dogmatic incredulity,” i.e. unlimited scepticism, which had impeded the scientific exploration of the invisible.128 A genuinely scientific approach ought to avoid these two extremes. When scepticism becomes an absolute and a dogma, it freezes and “paralyze[s]” the process of experimentation, just like credulity makes investigations pointless.129 True science, on the contrary, was reasonable scepticism, in other words, critical thinking enriched by open-mindedness. For Flower, the time was “ripe for an honest, fearless, scientific, and yet sympathetic investigation of psychical problems.”130 The necessary condition for scientific progress boiled down to one value – freedom. Without the willingness and the possibility to inquire further, no matter how “cranky” a hypothesis could be, science turned into dogma and cancelled itself. That meant returning to the “Dark Ages with its intolerance, prohibition, and class and creedal assumptions.”131 Impartiality and tolerance therefore ought to guide the scientific community. This explains why he praised books such as The Ascent of Life by Jarvis: Jarvis’ book was based on experiments and critical inquiry but it was “intended to be put interrogatively;” there was “no dogmatizing.”132

At a time when science was becoming increasingly professionalised and scientists tried to impose a definition of proper science, Flower and his alternative “community of inquiry” showed that the “fringe” label was debatable and a matter of belief and power politics. In other words, they raised a troubling question: who had the authority to decide who the cranks were? Flower argued that it was a complex problem because all scientific knowledge was provisional. All science was “fringe” at one time, and results
should therefore be considered as hypotheses that stimulate further inquiry and serve the betterment of mankind. As he put it in a conversation with Garland:

_Is there any such rock [the rock of science]? [...] We take the so-called facts of science on faith. What theory explains all the facts of larvae turning into butterflies? What is the cocoon but a dark cabinet? It’s only an hypothesis after all – something to work with. Until very recently only two hypotheses were possible: one that all the phenomena were fraudulent, or they were the work of spirits. There is now a third hypothesis. Certain investigators now claim that they are caused by forces we do not understand. I am not asking you to become a spiritualist. I am only asking you and Dolbear to examine, with open minds, the cases we send to you (Flower’s emphasis)._133

Flower therefore praised the scientific method, but also questioned science’s claims of completeness and its “curse of infallibility.”134 While mocking the hubris and self-confidence of scientists, he was sensing the more modern approach to science that William James and other pragmatists were developing, an approach Karl Popper would later call falsifiability, in other words the possibility “for an empirical scientific system to be refuted.”135 The American Psychical Society had been set up to conduct experiments, to obtain sufficient data and to critically examine them in order to verify or refute theories about psychical forces in nature.136 Flower also shared with pragmatists the “sense that inquiry could change the world” and the anti-elitist belief that inquiry “was accessible on meaningful levels to the rank-and-file membership of an educated, democratic society.”137 He emphasised the tentative and collective nature of knowledge and focused on “a modernist discourse of democratic liberation in which communities of inquiry tested hypotheses in order to solve problems.”138 Flower’s network was one of these communities. However, Flower used this modern approach to science to demonstrate the validity of religious beliefs, a tactic which, from the standpoint of mainstream professional scientists, is ironic, as it violated the very premise of modern science: methodological naturalism.

Flower also remained trapped in a Whig conception of the history of science that posited an inevitable evolution toward rationalisation and
enlightenment. Scientists, like reformers, were, in his opinion, romantic, misunderstood Promethean figures that made progress possible. Since Flower perceived cranks to be pioneers, he syllogistically concluded that any nonconformist who produced a theory that fitted his optimistic belief in the possibilities of science had to be a new Galileo. In the same way that prejudiced believers in the Ptolemaic theory could not judge those who believed in the more advanced Copernican theory, “materialists” were incompetent to judge psychical researchers. Psychical research, that so-called anomaly dismissed by conservative scientists, reflected a type of “paradigm shift” – a revolution in science – and the two paradigms were incommensurable for Flower.\textsuperscript{139} He compared the many torchbearers he promoted to Copernicus or Galileo: Whig history blended with Americanism. The recurrent pioneer imagery implied that the new, regenerated America was to be formed on the new frontier of the psyche.\textsuperscript{140} Flower framed the history of science as if it were a form of morality play, pitting adventurous scientists on the side of enlightenment and moral regeneration against corrupt, reactionary pseudo-scientists who opposed truth and progress out of bias or ignorance. Natural evolution could not but doom the latter. His belief in freedom of inquiry and open-mindedness was therefore inhibited by a Manichean vision which \textit{a priori} dismissed opposite arguments as inexorably out-dated and invalid, and opponents as \textit{de facto} dishonest. According to Flower, any opposition to progress exposed prejudices and prejudices often aligned with personal interests. In truth, Flower exemplified the same lack of fairness for which he reproached his critics. As he willingly confessed, being a believer himself in psychical research made him biased, so that he \textit{a priori} distrusted any idea that ran counter to his vision of progress and, for all his claims about establishing strict validation procedures, he tautologically focused only on evidence that proved his hypotheses. The notion that his own reasoning contradicted the scientific method escaped Flower.

Flower’s “community of print and association” mobilised serious researchers, reformers and all sorts of eccentrics; according to him, it made “profound impressions on a receptive public.”\textsuperscript{141} His personal and business archives have been destroyed; any appraisal of the reception of his endeavours remains therefore tentative.\textsuperscript{142} Evidently, the democratisation of science that he called for remained limited. His generic “people” were \textit{de facto} divided because of his dual role as editor of a magazine for the public
and of a journal for scientists. They were also passive when compared to Promethean scientists. His readers were invisible, save as a rhetorical incantation, and they were confined to the middle class. Dauchy and Company, an advertising agency, indicated in its Newspaper Catalogue that the high-priced Arena (a 50-cent monthly in the age of the ten-cent magazine) logically reached well-off middle-class families “who appreciate a live magazine that is up with the times.”

That claim seems to be confirmed by the Muncie (Indiana) Public Library circulation records. Even if The Arena did reach a few service or blue-collar workers (eight out of 49 patrons), most borrowers belonged to that world of physicians, lawyers and merchants targeted by the few advertisements dotting The Arena.

Advertising in his periodical marketed the same household conveniences featured in major magazines at the time, commodities that promoted modernity like Pear’s Soap, Dr. Scott’s Electric Razor, Quaker Oats, various brands of bicycles and typewriters. The Arena “flattered readers for their progressive ideas” and provided the middle-class with “cultural maps” of a new world.

Flower actually wanted to show that psychical research ought to be put on such a map, a map which, ironically, could also turn fringe science into another consumer good. After all, Flower could vaunt the scientific nature of an article about “remarkable cases” while promoting it in red letters above the Arena masthead as “wonderful ghost stories” or advertise a “symposium” with the catchphrase: “Do People See GHOSTS?” Such “sensationalism” was shameful according to the Boston spiritualist newspaper Banner of Light. As to the “profound impressions” on the general public, no extant record substantiates such a claim. It sounds more like another testimony to his stubborn optimism and an illustration of sociologist Claude Fischer’s quip: “a social trend is whatever is happening to a newspaper editor and the editors’ friends.”

While Flower’s work did have an impact on intellectual circles, he did not seem to be particularly successful at bridging the gap between the scientific community and cranks. Both spiritualists and scientists wanted to distance themselves from psychical research and even agreed when it came to asserting their respective spheres of influence. The Banner of Light explained that most APS members were ministers and therefore incompetent “to judge science.” The newspaper also dismissed their investigations as redundant (British experts like Wallace or William Crookes had already proven the validity of psychic phenomena) and as a way for clergymen “on
the edge of doubt” to cope with the decline of faith and church attendance.\textsuperscript{148} Even if professional medical journals noticed a “revival of psychical research” and set up “psychological sections,” they remained circumspect and saw the trend as an object of study, not as a movement to embrace.\textsuperscript{149} In the \textit{American Journal of Psychology}, G. Stanley Hall went further. He denounced the APS as part of a transatlantic trend of dressing occultism “in the smart new garb of modern science” and he contrasted it with the “new psychology” that was not attempting to “confirm any old longings [i.e. talking to dead loved ones] or new theories,” but to reach conclusions that would “give us a vastly loftier and more adequate notion of all that can be called psychic.”\textsuperscript{150} Psychologists, “stationed at the periphery of science,” were anxious to assert their status as scientists and “embraced the mission of surveying and defending the limits of science itself.”\textsuperscript{151} Relegated to the fringe of public discourse and compelled to create their own alternative institutions, Flower and his network sought to be recognized as mainstream middle-class intellectuals. They wanted to enjoy the intellectual authority that befitted their social position and the advanced nature of their ideas. Normalising cranky ideas was, for them, also a struggle for social acceptance. Their efforts were self-defeating, however, since Flower ambivalently strove for intellectual and social rehabilitation while romantically positing outcast status as the necessary condition and the only true badge of scientific and political avant-gardism. Besides, since established scientists wanted to nurture the nascent partnership among big business, universities and the government that aimed to reorganise knowledge and would come to “engineer and manage a new America,” Flower and his fellow intellectuals failed to realise that their radical Populist condemnations of corporations and of the “college trust” also doomed their chances of co-optation by legitimate science.\textsuperscript{152}

A swan song for a time when the boundaries of science were not yet strictly fixed, the sciences of the mind testify to the varieties of scientific experience at the time. However incantatory, Flower’s call to re-democratise science carried radical implications. Such thrilling possibilities should not obscure the fact that Flower’s legitimisation program remained performative. Flower conducted and published many experiments when he wrote for \textit{The Psychical Review} but, above all, he conducted science with words. He failed to realise that one of the limits of a conception of science based on procedures and methods is that the conception risks being reduced to the trappings of
science. Flower and his network of researchers actually expressed a desire for utopian communication between the living and the dead through spiritualism, and between minds through hypnotism and telepathy. Whether fringe science shaped or merely reflected his aim as a journalist, i.e. as a “thought-molder,” remains unclear, but it did contribute to his quest for the ideal *medium* to educate readers and reform society.

Flower announced that *The Arena* was “the first review to give the thoughtful magazine readers a strong series of papers from thinkers of recognized ability and world-wide fame, on the psychical phenomenon.” Each issue in the 1890s featured several articles on the subject. Garland noted that the years after 1895 were “unproductive”: the American Psychical Society slowly disintegrated, their journal died, and Flower lost control of *The Arena*. After the death in April 1892 of his major patron, Gideon Reed, growing tension had emerged between Flower and Reed’s widow. The 1893 depression and the alleged loss of advertising revenue following Flower’s support for the radical candidacy of William J. Bryan in the 1896 presidential election took its toll on his publishing ventures. In 1896, Flower was forced out as editor. The bankruptcy of the Arena Publishing Company put an end to his use of print to advance reform and psychical research. Thereafter, he reoriented his interests away from psychical research and hypnotism towards New Thought and Christian Science (i.e. faith healing). A connection to science was instrumental for the former and tangential, at best, for the latter.

Flower’s personal reorientation away from experiments provides a window on a growing cultural divide in turn-of-the-century America. Metaphysical religions like New Thought perpetuated the more popular tradition of democratised science, but redefined it into a formula for spiritual elevation intended for the middle-class. By 1910, the advent of a purely physiological, German-inspired, laboratory-centred approach to psychology within academia eventually discredited psychical research and marginalised figures like James, Janet and all the other American, French and British investigators referred to in this article. Popular beliefs such as spiritualism even became the object of a new scientific field – the psychology of (self-)deception. Flower’s trajectory, and the debates about psychical research, reveal, therefore, several shifts in the American cultural setting at the time. The controversy over what science considered to be appropriate methods
and research subjects was instrumental in creating the modern, naturalistic view of science as exclusively the study of physical phenomena in order to determine physical causality. In other words, the mind or any other spiritual forces could not act on matter. From then on, nonphysical phenomena were assigned to the realm of popular belief. These debates contributed to the emergence of a science/religion divide. Moreover, the process of intellectual and cultural distinction between science and belief deepened the rift between experts and “the people.” The controversy also created a stark intellectual and social divide between psychical researchers and “true” scientists. After successfully discrediting psychical research as a legitimate science, the “true” scientists proclaimed their mainstream status and imposed it on society at large while foisting the “fringe” label on their opponents.

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Notes

1 See for example the conclusion of Flower, “The Coming Religion,” The Arena, 8 (October 1893): 647-56; “Physical Science in the Nineteenth Century,” 26 (August 1901): 178-90. Unless otherwise stated, magazine articles referenced in this paper are all extracted from The Arena.

2 Flower, Progressive Men, Women, and Movements of the Past Twenty-five Years (Boston: The New Arena, 1914), 167, 169.


17 Flower, Progressive Men, 22, 153.


22 ibid., 322, 324.

23 ibid., 325.

24 ibid., 326-27.


26 Donald Robertson ed., The Discovery of Hypnosis - The Complete Writings of James Braid, the Father of Hypnotherapy (UKCHH Ltd, 2009), 43, 54-55.

27 Numbers, Science and Christianity, 53


Flower, *Progressive Men*, 300.

Flower, “To the Friends of Psychical Science,” 238.

*ibid.*, 238.


About James, see Coon, “Testing the Limits of Sense and Science,” 147.


*ibid.*, 316. Flammarion concurred: “the unknown of yesterday is often the reality of today.” Flammarion, “New Discoveries in the Heavens,” 2 (Flammarion’s emphases).


Flower, “The Scientific Sensation of the Hour,” 381.

Flower, “The Scientific Sensation of the Hour,” 381.


ibid., 316, 334.

Flower, “The Scientific Sensation of the Hour,” 381.


Flower, “Books of the Day, *Psychic: Facts and Theories* by Savage,” 7 (April 1893): xv. Flower emphasised the centrality of investigation and the possibility to combine spiritualism and science; that this was part of the collective imagination of his time is shown by this other thread in the tangled transatlantic story of “psychical research”: Arthur Conan Doyle, the creator of Sherlock Holmes, would also use his experimental skills in demonstrating spiritualism at the beginning of the twentieth century. Arthur Conan Doyle, *The History of Spiritualism 2 Volume Set* (1926; repr., Cambridge: Cambridge University Press, 2011).

Oxford English Dictionary, s.v. “science,” http://www.oed.com. According to the OED, this is “the most usual sense since the mid-19th cent. when used without any qualification.”

Ironically enough, the extension of the realm of “nature” reveals more a belief in the scientific method rather than its actual application: “Baconianism was much stronger as a scientific mind-set than a strict scientific method. Few had come to terms with the inconsistency of being a Baconian and believing so firmly in something with which the sense had no direct access. Ironically, this myopia demonstrated just how deeply trusted the senses were.” Hazen, *The Village Enlightenment in America*, 107.


Flower also contributed to the review. For a complete list of articles about psychical research by Flower, his friends and fellow researchers, and therefore an overview of the scope of their work, see appendix 2. Only Flammarion did not write in *The Psychical Review*.

Flower, “An Earnest Word to Our Readers,” 94.


Savage, “A Reply to Mr. Hawthorne,” 691.


Flower, “Notes and Announcements,” 7 (March 1893): xxiv.

95 Flower, Progressive Men, 163.


99 “A Discourse on Seven Sciences; Cerebral Physiology, Cerebral Psychology, Sarcognomy, Psychometry, Pneumatology, Pathology, and Cerebral Pathology,” The New York Times, March 17, 1878.

100 Fuller, Mesmerism and the American Cure of Souls, 53-54.


102 Joseph R. Buchanan, “The Coming Cataclysm of America and Europe,” 2 (August 1890), 301.

103 Flower, “Psychological Problems,” 509-11. Flammarion’s approach prefigured most of the arguments developed by Flower: “Spiritualism is not a religion, but a science, a science of which we as yet scarcely know the a,b,c. The age of dogma is past. Nature includes the Universe, and God himself, who was in old times conceived of as a being of similar shape and form as man, cannot be considered by modern metaphysics as other than Mind in Nature” (Flammarion’s emphasis). Camille Flammarion, Oration Delivered at the Grave of Allan Kardec (Paris: Didier, 1869), in Flammarion, Mysterious Psychic Forces: An Account of the Author’s Investigation in Psychical Research, Together with Those of Other European Savants, uncredited English translation (Boston: Small, Maynard and Company, 1907), 31. William James shared with Flammarion and Flower the idea of an infinite nature. For James, the “incompleteness of visible nature” suggested “a vaster realm of spiritual freedom.” John Higham, “The Reorientation of American Culture in the 1890s,” in John Higham, Hanging Together: Unity and Diversity in American Culture (New Haven, London: Yale University Press, 2001), 193.


105 Flower, “Revolutions in Religious Thought During the Nineteenth Century,” 602.


107 Flower, “Is This You Son, My Lord,” 761.

Critiques of social Darwinism were quite mainstream: pooh-poohed by the scientific elite, reformers were prompt to appropriate the language of science to legitimise their utopian visions, just like laissez-faire advocates had taken up and, arguably, distorted Darwin’s ideas. In an essay, Bellamy proposed a revised version of Darwinism replacing “the law of necessity with the law of love.” In Charles Sanders Peirce’s article “Evolutionary Love,” the pragmatist philosopher explained that love, in the words of Matthew Hartman, “furnishes the motive and the telos of evolution.”


Flower, “Prospectus of the Arena for 1894,” 9 (December 1893): xlv, xlvi.


Flower, “Prospectus of the Arena for 1894,” xlvi.

*ibid.*, xlvi.

*ibid.*, xlv-xlvi.

*ibid.*, xlvi.


126 Flower, “To the Friends of Psychical Science,” 238.


129 Flower, “Books of the Day *As It is to Be* by Cora Linn Daniels,” 7 (March 1893): xiv.

130 Flower, “An Earnest Word to Our Readers,” 95.

131 Flower, *Progressive Men*, 304. The “civilization-moulding struggle” between “progress under the aegis of freedom” and monopoly and “conservative, privilege-seeking restriction” defined Flower’s vision of science but also of politics in general. He fought against monopolies on knowledge but also against economic monopolies because both led to “moral or intellectual stagnation” (*ibid.*, 300).


134 Flower, “*As It is to Be*,” xiv.


136 Flower, “To the Friends of Psychical Science,” 238.


142 Our personal investigations have confirmed this destruction. I would like to thank librarians, archivists and scholars in various Boston universities and from across the United States (via the SHARP-L forum), as well as Flower’s descendants, antique booksellers and genealogists in Boston for their help in trying to locate the missing papers (unfortunately, to no avail).


151 Coon, “Testing the Limits of Sense and Science,” 150.


**Appendix 1: Books and imprints dealing with “psychical research” and other fringe theories published by The Arena Publishing Company.**


**Appendix 2: Articles about psychical research by Flower, his friends and fellow researchers published in The Psychical Review (organised by author and then chronologically).**


--- “Psychical Cases and Reflections from Periodical Literature.” 1 (February 1893): 281-86 (reprinted from an article from the January 1893 issue of The Arena).


--- “Experiment in Psychography.” 1 (December 1892): 131-35.


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