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COMMENTARY

THE BLIND PROTOCOL AND ITS PLACE IN CONSCIOUSNESS RESEARCH

Stephan A. Schwartz*

This paper describes the development of the blind protocol, and its place in this history of consciousness research. It was first devised by Croesus, King of the Lydians (BCE 560-547) and reported by Herodotus (≈ BCE 484 - ≈ 424), and was created to protect against fraud in assessing an Anomalous Perception (AP) event; a Remote Viewing (RV) experiment little different from those conducted today. Its next use in the 17th century was to study a peasant farmer, Jacques Aymar, who solved crimes with Anomalous Perception, using dowsing. Not only was a blind protocol employed, but the rudiments of controls were introduced to assess Aymar. The next documented use of a blind protocol in consciousness research occurred in 1784, when it was explicitly employed in the interest of science, and its history as a research technique can be said to have formally begun. King Louis the XVIth created a commission to evaluate Franz Anton Mesmer's claims concerning healing through "animal magnetism," administered while people were in a trance, and asked Benjamin Franklin to be the commission's head. The paper proposes that Franklin be considered the first parapsychologist. He created the blind protocol to answer the king's question as to whether "animal magnetism" was real, and he not only introduced demographic variables and controls, but literally blindfolded people, which is why today we call it the blind protocol. Franklin's observations also present the first recorded Western description of psychosomatic illness. An unintended conse-

quence of Franklin's Mesmer study was the loss of the idea of psychophysical self-regulation (PPSR) as a research vector, although the English surgeon John Eliotson (1791-1868) apparently saw through the failure of Mesmer's explanatory model to the deeper insight in the form of hypnosis that was Mesmer's real discovery. He seems to have avoided all attempts at explaining how it worked but conducted a considerable number of surgeries using hypnosis as the anesthetic, anticipating its usage in this capacity a century later. So great was the disapproval of Mesmer, however, that no one seems to have gotten Eliotson's point. Franklin's protocol, though, rapidly became the gold standard of science. Rupert Sheldrake, however, carried out a survey of the leading scientific journals and discovered that the main use of the blind protocol is not in medicine per se, but parapsychology and consciousness research, in which it is used for the same purposes it was originally conceived: to winnow out fraud in anomalous consciousness events and to avoid introducing experimenter effects. Ultimately, though, the protocol may be based on a false assumption, because increasingly research in areas such as therapeutic intent/healing and remote viewing suggest that all consciousness from single-celled organisms to human beings may be interlinked through a nonlocal aspect of awareness they all share.

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Fn1 In a search for the source of the idea of scientifically studying consciousness in the West, Herodotus of Halicarnassus (≈ BCE 484 - ≈ 424), a Greek man of letters whose vivid histories have made him immortal, is a good place to start.¹ In his *Histories* he recounts how a wily Lydian king whose name to this day is associated with great wealth—Croesus (BCE 560 to 547)—carried out the first experiment in what today we would call anomalous perception, the ability to describe persons, places, or events from which one is shielded by reason of time or space, or both.* Croesus had lost his son and was in deep depression when his mourning was interrupted by the news that he might be attacked

by the Persians. He wanted to consult an oracle to tell him what to do. But which one could he trust?

The solution Croesus devised was both a blind protocol experiment and the first description of what today would be known as remote viewing.[†] He sent out couriers to all the famous oracles of his day. To the Greek oracles he sent delegations to Delphi; to Abae in Phocis; to Dodona; to the oracle of Amphiarus; to Trophonius; and another to Branchidae in Milesia. To Libya, which was then considered part of Asia, he sent another embassy to consult the oracle of Ammon at Siwah in the Libyan desert.¹

*At the present time in parapsychology, phenomena are classed either as anomalous perception, sense impressions and a sense of knowingness concerning things one ought not be able to know; and anomalous perturbation, consciousness affecting either other living organisms or mechanisms, again via a mechanism unknown.

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†The term "remote viewing" was coined by New York artist Ingo Swann in the early 1970s, when he was working with Harold Puthoff and Russell Targ at SRI. It originally meant a specific protocol for obtaining objectively measurable sense impressions and knowingness via a mechanism unknown, and is considered a form of anomalous perception. Today, however, the term remote viewing has come to mean both the protocol and the general experience, and it has largely replaced such older terms as clairvoyance in scholarly discourse.

All of these messengers were given an identical task: "They were to keep count of the days from the time of their leaving Sardis and, reckoning from that date, on the hundredth day they were to consult the oracles and to inquire of them what Croesus, the son of Alyattes, king of Lydia, was doing at that moment. The answers given them were to be taken down in writing, and brought back to him."¹

None of the replies survive except that of the oracle at Delphi recorded by Herodotus.

Following their king's instructions, the Lydians waited until the hundredth day. As soon as they entered the sanctuary, even before they could ask their question, the Pythoness, as the entranced young woman within was known, answered it in hexameter verse:

I can count the sands, and I can measure the ocean;
I have ears for the silent, and know what the dumb man
meaneth;
Lo! on my sense there striketh the smell of a shell-covered tor-
toise,
Boiling now on a fire, with the flesh of a lamb, in a cauldron-
Brass is the vessel below, and brass the cover above it¹

Even though it sounded like gibberish, the Lydian embassy faithfully wrote it down and set off for Sardis to report to Croesus.

Herodotus says, "When all the messengers had come back with the answers which they had received, Croesus undid the rolls, and read what was written in each. Only one approved itself to him, that of the Delphic oracle. This he had no sooner heard than he instantly made an act of adoration, and accepted it as true, declaring that the Delphic was the only really oracular shrine."¹

Croesus, in stipulating 100 days, had set up an experiment, one little different from such blind protocols today. The messengers would not know the answer, nor could the oracle.

Herodotus says, "He set himself to think what was most impossible for any one to conceive of his doing, and then, waiting till the day agreed on came, he acted as he had determined. He took a tortoise and a lamb, and cutting them in pieces with his own hands, boiled them both together in a brazen cauldron, covered over with a lid which was also of brass."¹

Anomalous perception in crime-solving dates back at least 300 years to 17th-century France and provides the next use of the blind protocol. Once again its use was to study consciousness and avoid issues of fraud. On 25 July 1692, a wine merchant and his wife in Lyons were brutally murdered with a meat cleaver or scythe during the course of a burglary. The crime became a sensation and then an embarrassment when the police were unable to solve it. Finally, Jacques Aymar, a 30-year-old peasant farmer with a reputation as a dowser, volunteered to help.^{2,3} The king's procurator, apparently impressed by Aymar's record, summoned him to Lyons. Aymar was taken to the crime site; using his dowsing tools, he reconstructed the crime and quickly announced that three people had been involved in the murder.

Guided by his dowsing rods, he tracked one of the perpetrators to a prison in the town of Beaucaire, about 241 km away, where, from a lineup of 13 men, he selected a man who had been

arrested for another theft just minutes before.³ The man was returned to Lyons, where he confessed and validated all of Aymar's anomalous perceptions. The procurator was so pleased with this success that he granted Aymar legal powers and assigned him a troop of soldiers to assist him in his work. Again using his dowsing rods, Aymar took up the search, eventually tracking the remaining two perpetrators to an inn in the town of Toulon, although they fled French jurisdiction for Genoa by the time troopers arrived.

As a result of all this, Aymar became a national hero and was asked to help out in a number of other unsolved criminal investigations throughout France. A government commission was appointed to record those efforts. That led, in turn, to a counterinvestigation by skeptics. Their argument, articulated most completely by the physician Pierre Garnier, was that dowsing was irrelevant. Success such as Aymar's resulted from tiny particles of matter exhaled by people, of whom murders and the like had an exhalation of a different quality at the moment they were committing their crime.⁴ These tiny exhaled "corpuscles" lingered at the scene of the crime and penetrated the skin of dowsers who were particularly sensitive to their presence.

Following this repudiation of Aymar's abilities, the Abbé de Vallemont, Pierre le Lorrain, wrote a treatise, *Occult Physics, or Treatise on the Divining Rod*, defending him, which was published in Paris in 1693.⁵ As a result Aymar was brought to the city by the Prince de Condé, and a prototype of the controlled experiment was carried out in the presence of members of the Academy of Sciences, once again with the goal of studying anomalous perception while avoiding fraud. In a garden, the scientists had six holes dug. Four were filled with different metals, the fifth was filled with gravel, and the sixth was left empty, although the grass cover was restored. Aymar was able to locate the empty hole and the one filled with gravel, but could not distinguish the metals.²

The controversy over anomalous perception, in the form of dowsing, continued unabated for years, with skeptics decrying its use, even as it flourished amongst miners and many in the intelligentsia, most notably perhaps the Bishop of Grenoble. Aymar himself retreated to his home, and although he enjoyed subsequent successes, he was never again the national hero he had been and eventually died in relative obscurity.

But neither Croesus nor those studying Aymar, although the latter were considered scientists in their day, could be considered researchers intent on the explicit study of consciousness. Furthermore, their intentions for using the blind protocol did not extend to issues such as experimenter effect or control populations. The real beginnings of the blind protocol as the research tool we know still lay most of a century into the future, and the honor for creating it belongs to Benjamin Franklin.

Today, we do not often think of Franklin's scientific research except in terms of his work on electricity and his story of flying a kite in a thunderstorm. But if his electrical work, diplomacy, and statesmanship did not overshadow his other achievements, he would still be an historically significant individual for his studies in a half a dozen other disciplines. He was the first meteorologist in America, the first geographer, the first oceanographer, an inventor of medical apparatus, and, least known of all, the first parapsychologist and scientific consciousness re-

searcher. It was in this capacity that he created the blind protocol.

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In 1778, Franklin was in Paris, as America's Minister Plenipotentiary to the court of King Louis XVI, when the 18th century's greatest medical rogue, Franz Anton Mesmer, came to the city from Vienna in a cloud of celebrity and controversy.[‡] Mesmer had left Vienna rather hurriedly. He had been asked to treat Marie Paradies, a pianist who appears to have suffered from hysterical blindness. After receiving his treatment, her eyesight was temporarily restored, but the change was so overwhelming that it shattered her nerves and she lost the ability to play her instrument. Unhappily for Mesmer, Marie Paradies was the goddaughter of the Austro-Hungarian Empress, Maria Theresa, and she had taken umbrage at what had happened to Marie. Mesmer had prudently decamped Vienna for Paris, which is where he encountered Franklin.

Well trained in both medicine and theology, Mesmer was a charming, rational, cultivated man who was admired by people like Mozart whom he commissioned several times to write special musical pieces. Like Franklin and Mozart, and many of the aristocracy, Mesmer was also a Freemason, then the mark of a man of character. But he also had a flamboyantly theatrical style, more than a pinch of the con, startling theories of illness, and disturbing and erotically tinged methods of treatment. Larger than life, he surfed controversy like a wave.

He treated his patients, known as *somnambule*, described by one observer as mostly "hysterical bourgeois women," in groups during "magnetic séances." Like many intellectuals of the 18th century, particularly those involved with Freemasonry, Mesmer was interested in alchemy and astrology and that may be why he cloaked his treatments in the symbols of these already contested fields. The *somnambule* sat holding hands around a large wooden tub filled with powdered glass and magnetized iron filings. They were relaxed and brought into *rapport* by the sweet haunting tones of the armonica, a glass instrument whose invention, coincidentally, was another Franklin achievement. The armonica was played from behind a curtain covered with astrological symbols and produced ethereal sounds that were the 18th century's equivalent of modern electronic consciousness music. At this point Mesmer, cloaked by a long purple robe, would enter. In a performance that was a cross between a modern entertainment hypnotist and a stage magician, he would take the *somnambule* down into a deep trance and give them healing suggestions. Then he would touch them with a white metal wand, sometimes rub them, frequently on "the lower abdomen," then command them to awaken rested and cured. The treatment frequently worked, although not for the reasons Mesmer claimed, and this

‡Mesmer's first name is quite frequently given in both popular and scholar writings as Friedrich. This confusion of Friedrich for Franz traces to 1814 when one of Mesmer's manuscripts was reprinted by a Berlin publishing house that appears to be the first time the mistake was made. His name in Latin was entered into the parish registry at his baptism as Franciscus, which, in German, is Franz. See Tischner R and Bittel K. *Mesmer und sein Problem. Magnetismus - Suggestion - Hypnose*. Stuttgart: Hippokrates; 1941 for a discussion of this.

success made Mesmer popular with lay people and feared by the medical establishment.

How Mesmer discovered the fundamentals of hypnotism and stumbled onto the rudiments of the psychophysical self-regulation that lies at the core of such modern treatments as psychotherapy, hypnotism, and biofeedback, as well as the placebo effect, is unknown. It may be that he just observed the anesthesia that a relaxed trance state produced as well as the physiological control it gave subjects over their bodies and minds. However it happened, he seems to have sincerely believed he had stumbled onto the cure for all illnesses.

It is clear though he had no real insight into why the trances worked. Mostly, he seems to have understood from the very beginning of his career in medicine that he needed an explanatory model, and his doctoral dissertation, *De Planetarium Influxu* (On the Influence of the Planets), written in fulfillment of his degree for the Faculty of Medicine at the University of Vienna, which he published in 1766, is his attempt to construct such an explanation. In its 48 pages he connected together, to explain what he had observed, hypnotism; a kind of primitive description of cyclical activity in the biosphere (frequently mistakenly described by modern commentators as astrology); electricity; magnetism; and even a variant on Newton's recently described gravity. He would later call this model *gravitas animalis* or *magnetismus animalis*—animal magnetism.

All this gave the effects he achieved a certain gloss, given that electricity, magnetism, and gravity were the high technology of the day. And we now know where he got the idea for his model. He plagiarized it. He took it from one of the most prominent and well-regarded English physicians of the previous generation, Richard Meade (1673-1754).⁶ Mesmer's *De Planetarium Influxu* bears a more than coincidental—indeed, portions are virtually verbatim—resemblance to the 1746 revised edition of Meade's 1704 book, *De Imperio Solis ac Lunae in Corpora Humana et Morbis inde Oriundis* (On the Influence of the Sun and Moon upon Human Bodies and the Diseases Arising Therefrom).

Extending an alchemical belief, another fashionable subject in which he had an interest, Mesmer proposed that all living forms possessed a universal "fluid" possessed that could flow from one organism to another and that this fluid could be manipulated to affect a patient's health. It would not be the first time an observable phenomenon was linked to an absurd explanation and, as time went on, Mesmer became more and more invested in it, even as it made him more and more a pariah to the medical community.

When he arrived in Paris, the French medical establishment, alarmed as much by his entrepreneurial success as by his unfounded theories, made it impossible for Mesmer to get a license to practice medicine in the city. Mesmer got around this by partnering with his disciple, the already medically licensed Charles d'Eslon.

As he had in Vienna, Mesmer was soon operating at the very height of the Parisian social pyramid, collecting followers that included the young French aristocrat and American Revolutionary War hero, the Marquis de Lafayette, as well as no less a personage than Queen Marie Antoinette. He was lionized by the glamorous, and Mozart made references to Mesmer and his magnets as a plot device to cure one of his characters in the opera

Cosi Fan Tutti. So great was his popularity that the terminology of mesmerism, as it came to be known, was soon part of the language, where it has remained to the present day. His name gives us the verb "mesmerize."

By 1784, six years later, Mesmer felt secure enough to issue a subscription for shares to establish a hospital for animal magnetism treatments and quickly raised 340,000 livres, a prodigious sum for the time. This development, his ever greater fame, his hold on the queen, and the constant lobbying against him by the established physicians who saw his aristocratic patronage as an economic threat to their own practices finally prompted King Louis to establish a commission to investigate his claims.

On March 12, 1784, four doctors from the Faculty of Paris were selected. One of them was Joseph-Ignace Guillotin. Although he did not invent it, he championed its use and his name comes down to us because it is linked with the only form of state-sponsored legal killing associated with a single country: France and the guillotine.

The four doctors asked that the Academy of Sciences provide scientists to augment their number, and five were chosen, including Lavoisier, the discoverer of oxygen, and Franklin, known throughout the world then as the man who had discovered electricity. The king asked Franklin to be the commission's head.

He was now arguably the most famous man in the Western world. According to a letter from Thomas Jefferson to the Reverend William Smith, dated February 19, 1791, when Jefferson went to Paris to replace him, he wrote of his friend and mentor, the man with whom he had written the Declaration of Independence, that "more respect and veneration (was) attached to the character of Dr. Franklin in France than to that of any other person in the same country, foreign or native." He was also a man who lived in considerable pain. He suffered from gout, boils, and 80 years of hard living, and he was mostly confined to his house in Passy, a mile from Paris and seven from the king's seat at Versailles. Why he took the assignment is not clear. It may be he felt obligated to the king. He had just talked Louis, the most autocratic and traditional monarch in Europe, into funding a war of liberation fought by the most revolutionary democracy in the world, at a time when France's financial situation was far from sanguine. Or it may be that, whatever the condition of his body, his mind and his curiosity were as wide-ranging as ever.

One thing is certain. As was usually the case, Franklin saw more deeply into the matter than anyone else, and he wrote what may be the first recorded commentary on hypochondria and psychosomatic medicine. On March 19, before the commission formally began its work, he said, ". . . delusion may, however, in some cases be of use while it lasts. There are in every great rich city a number of persons who are never in health because they are fond of medicines and always taking them whereby they derange the natural functions and hurt their constitutions. If these people can be persuaded to forbear their drugs in expectation of being cured by only a physician's finger or an iron rod pointing at them, they may possibly find good effects though they mistake the cause."⁷ It is obvious from this that Franklin understood that consciousness was probably what he was going to be studying.

Franklin was not up to traveling when the commission began, so the initial meetings were held without him and without his

guidance as to how such an evaluation should be undertaken. Because Mesmer himself could not practice medicine, the members went to d'Eslon's clinic, where they found a handsome, dimly lit room in the center of which was the wooden tub with its pulverized glass and iron filings. In place of Mesmer's armonica, a pianoforte off to one corner provided a musical background. The patients were seated on chairs around the tub, linked together by cords, each holding their neighbor's thumb between their own thumb and first finger. From the tub long articulated iron rods projected that could be touched to any part of a patient's body. d'Eslon explained to the commissioners that the tub was the condenser and conductor of the animal magnetism. As they watched, he walked among the patients, touching one or another with a short iron rod or rubbing his hands over their bodies, particularly the lower abdomen.⁸

The treatments went on for hours as the tension in the room grew. Nervous coughs, hiccups, hysterical cries, sobs, and even convulsions were observed and, d'Eslon told the observing commissioners, were welcomed as signs that healing was taking place.⁸ Nothing was controlled, and the commissioners left with no more sense of what had taken place medically than before they had come. After attending a number of these sessions, on the grounds that they might be disturbing the patients, the commissioners resolved to attend no further séances and passed on their findings to Franklin.⁸

Franklin saw none of this activity as very useful. He might believe in reincarnation, practice meditation, and have an interest in all kinds of phenomena, but he never confused interest with evidence.⁸ What was called for, he realized, was some kind of controlled protocol, and in April, because he could not go to them, he arranged for the other commissioners and d'Eslon to come to him. In late April and early May, and at least once in June, they trooped out from Paris to gather at his residence in Passy.⁹

On the theory that class and culture might explain what was happening, and to allow comparisons between populations, the first session at Passy involved only lower-class patients, whose presence Franklin seems to have arranged. They included the asthmatic widow Saint-Amand; a woman named Anseau, who had a swollen thigh; six-year-old Claude Renard, scrofulous and tubercular; Geneviève Leroux, who was nine and suffered from what was called St. Vitus's Dance; François Grenet, blind in his right eye from a tumor; a woman named Charpentier, who had been thrown by a cow 2 years earlier and never fully recovered; and a man named Joseph Ennuyé, whose reason for being included is not given.⁹ After several hours, four of the seven were not affected at all by d'Eslon's treatments; those who were affected experienced mostly discomfort from having sore spots on their bodies pressed. No cures were achieved.

A few days later the commissioners arranged for four upper-class people to be treated: Madame de Bory and Monsieur Romagni, who had no symptoms, or none listed, anyway; Monsieur Moret, who had a tumor on his knee; and Madame de V-, who had some kind of nervous disorder. To this group were added Franklin himself, his grandsons, his secretary, and an American officer who had called on Franklin, as well as a group of patients selected by d'Eslon from his Paris practice.⁹

Madame de Bory and M. Romagni felt nothing during the treatment, nor did Franklin, the grandchildren, or the American officer. Madame de V— almost fell asleep, although whether this was from hypnotism or treatment is unclear. The existing d'Eslon patients were more responsive, which was not surprising, and Franklin suggested what became the first use of blindness and sham treatments in a scientific protocol. He also clearly had in mind reducing the possibility of experimenter effect.

To achieve his ends, he directed that the d'Eslon patients were to be blindfolded, which is why this protocol came to be known as "blind," and treatments continued. As Franklin had hoped, the use of the blindfolds was very revealing. The patients could not tell when they were being "magnetized" and often thought that they were when they were not, or weren't when they were.⁸ The personal charisma of d'Eslon was eliminated as a factor.

During another session at Franklin's house, they went out into the garden. Mesmer maintained, as did d'Eslon, that any living thing could be magnetized, and he either volunteered or, more probably, Franklin asked for a demonstration. d'Eslon went over to an apricot tree in the garden and touched it with his wand, supposedly magnetizing it. He said that anyone who touched the tree would be affected. d'Eslon was either a fool or genuinely believed that what he was saying was true. Otherwise, why would he expose himself to ridicule? But Franklin, once again, saw the matter not as a question of belief but of evidence obtained under blind conditions.

d'Eslon was required to stand several yards from the tree.¹⁰ When he was in place, a 12-year-old boy was blindfolded with a bandage and led out into the garden. He was taken to stand in front of four trees, three controls and the treated tree, one by one.¹⁰

At the first tree, the boy began to perspire and cough. At the second tree he said he felt pain in his head and languor in his body. At the third, he said his headache was now much worse and volunteered that he felt he was getting close to the magnetized tree. In fact, he was actually moving away from it. At the fourth tree he fainted, had to be carried and laid out on a grassy area, where d'Eslon revived him.¹⁰

Franklin and the other members of the commission in attendance were satisfied that the experiments conducted at Franklin's house, under the conditions of blindness he had devised, had settled the question they had been asked as to whether animal magnetism was real. It was not.

On August 11, they issued their report to the king, attaching each of their signatures. They were unanimous. Benjamin Franklin's signature stood in first position, and such was his preeminence that throughout Europe and America, scientists and lay people alike felt that it had been Franklin who had settled the issue. Ever since, history has known this first formal study of anomalous phenomena as the Franklin Commission. Mesmerism was dead, and Mesmer soon left Paris. He was lucky. Ten years later, Lavoisier would lose his head to the guillotine, and Dr. Guillotin would just barely miss going under its blade. Mesmer ended up in Switzerland, largely forgotten and ignored, where, years later, he would die in poverty.⁶

The development of hypnotism and psychosomatic medicine, and the mind-body issues this raised, which Franklin had commented on, would be crippled for half a century; an unin-

tended consequence of Mesmer's linking them to animal magnetism.

Although Mesmerism died out in France, the English surgeon John Eliotson (1791-1868), remembered principally as the first physician in England to use the stethoscope, apparently saw through Mesmer's explanatory model to the deeper underlying principle of psychophysical self-regulation in the form of hypnosis that was Mesmer's real discovery. He seems to have avoided all attempts at explaining how it worked but conducted a considerable number of surgeries using hypnosis as the anesthetic, anticipating its usage in this capacity a century later. So great was the disapproval of Mesmer, however, that no one seems to have understood Eliotson's point.

But the importance of Franklin's blind protocol and sham treatments would not be lost and would shape the course of medicine ever after.

In 1799, the English physician John Haygarth took the next step with the development of true sham (placebo) treatments. The Franklin protocol compared treatment to no treatment under blind conditions. Haygarth refined this idea when he was asked to evaluate a medical device that had arrived in Britain from America.¹¹ Invented by a Connecticut doctor, Elisha Perkins, like Mesmer's treatments it also was based on the manipulation of an ineffable energy. Perhaps this is what brought the Franklin Commission and its examination of Mesmer to Haygarth's mind when he was designing his own protocol.¹¹

Perkins' apparatus consisted of two rods, one of iron, the other brass, about three inches in length. The rods had bulbs at one end and points at the other, and treatment was effected by stroking the rods over the body at the site of the affliction. Perkins' theory was that the rods drew off a flux that was the cause of the problem. In considering how to go about testing the efficacy of such a device, Haygarth says he followed Franklin's lead. He describes how he developed a true placebo treatment by creating a second set of rods that looked exactly like the metal ones, but which were made of wood, known not to be a conductor. Those receiving a treatment were blind to which rods were being used. As Haygarth explained it, "prepare a pair of false, exactly to resemble the true, tractors. Let the secret be kept inviolate," he wrote. "Let the efficiency of both be impartially tried."¹¹

In another set of experiments, Haygarth coated rods with wax, also known to be a nonconductor. As the result of using Franklin's blind protocol, and by adding his contribution of a sham treatment rather than just the absence of treatment, Haygarth could report a conclusion much like Franklin's observations 2 decades earlier: "The whole effect undoubtedly depends upon the impression which can be made upon the patient's Imagination."¹¹

Modern-day surgeon and medical professor Stuart Green, on the faculty of the Department of Orthopaedic Surgery at the University of California, Irvine, has traced Franklin's influence through the history of medicine and describes what happened next. Within "a few decades came numerous placebo-controlled inquiries, in Europe and America, into the professed benefits of Hahnemann's homeopathic remedies, which cited the Franklin Commission's strategies. Other blind assessments followed, scrutinizing everything from rheumatic fever and psychologic illnesses to testicular extract injections and cocaine."¹²

Table. Numbers of papers reviewed and the number involving blind or double-blind methodologies in a range of scientific journals

Area of science	Number of papers	Number with blind methodologies and as percentage of total (0.00%)
Physical science disciplines	237	0
Biological science disciplines	914	7 (0.8%)
Medical science disciplines	227	55 (24.2%)
Psychological and animal behavior disciplines	143	7 (4.9%)
Parapsychology	27	23 (85.2%)

Note that only papers reporting experimental results were included in this survey; theoretical papers and review articles were excluded. All publications appeared in 1996-1998 unless otherwise indicated. Data from Sheldrake.¹³

Franklin began the idea of the blind protocol in science, and Haygarth added the concept of identical, but sham, treatments. However, the statistical understanding of their day had not evolved enough to supply the final missing piece necessary to conduct modern medical research. This would not come for more than a century. It was finally provided by the English mathematician and statistician Sir Ronald Aylmer Fisher. Beginning in 1919, while working at Rothamsted Experimental Station in England, he began a several-year effort that would redefine the entire field of statistics. Franklin and Haygarth made observations about differences between real and sham or no treatment, but could provide no statistical assessment of the power of their conclusions. Fisher figured out how to do this and augmented Franklin's blind protocol with the idea of randomization as well as calculations of probability, which he called "likelihood."

As Dr. Green explains, "The final step in creating a thoroughly modern method of verifying the benefit of a particular treatment followed statistician R.A. Fisher's insistence that randomly assigning subjects to a treatment group or a control (placebo) group permits valid statistical comparisons between the two groups to some definable level of confidence."¹¹

With that addition, the trail blazed by Franklin and his commission had developed into the roadway in science that largely determines what medicines we take, what chemicals can be used in our environment, and whether we can trust an experiment's results.

Ironically, it is in the area of exploring consciousness that the idea of the blind protocol has most deeply taken hold in a way that, in essence, represents a return to its roots. The protocol is used for much the same reason it was developed: as a proof against trickery involving the anomalous and as a means of avoiding experimenter effect. The English biologist Rupert Shel-

drake¹³ conducted a survey of leading journals published between October 1966 and April 1998. The papers these journals had published were separated into three categories: "1.) Not applicable: papers that did not involve experimental investigations, for example theoretical or review articles; 2.) Blind or double-blind methodologies used; and, 3.) Blind or double-blind methodologies not used."⁶ As can be seen in the table, parapsychology as a percentage of published papers overwhelmingly utilizes this protocol more than any other discipline.

Five years later Caroline Watt and Marleen Nagtegaal, working at Edinburgh University, restudied the use of the double-blind protocol and reported in 2004 that in the ensuing years little had changed.¹⁴

In the end, the very thing Franklin created the protocol to study, anomalous consciousness events, may undermine its relevance. As we more fully come to understand the relationship of consciousness and nonlocality, we see that the very idea of blindness may be just another incomplete understanding. If, as the increasingly robust data in areas of research such as healing and remote viewing suggest, all consciousnesses from single-celled organisms to humans are interlinked and interdependent, nothing is blind.

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