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Grasping the Elusive: Julian Ochorowicz's Theory of Mediumship

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Abstract

This article explores the theory of mediumship proposed by Julian Ochorowicz (1850–1917), a Polish positivist thinker and scientist. Ochorowicz's objective was to establish mediumship as a scientific discipline distinct from spiritualism, which he criticised for its ideological and dogmatic nature. He advanced the theory that a multitude of purportedly paranormal phenomena could be elucidated through unconscious psychological and physiological mechanisms, including ideoplasty and involuntary muscle movements. However, he also hypothesised the existence of a 'dynamic atmosphere' or an etheric body – an invisible, subtle part of the human organism capable of acting beyond the physical body. The concept under discussion aimed to establish a connection between matter and spirit, imagination and physical reality. Notwithstanding the opposition mounted by the academic establishment and the subsequent decline of the ether theory following the advent of relativity, Ochorowicz's theories foreshadowed aspects of subsequent advancements in quantum theory, thus constituting an intriguing endeavour to comprehend the unexplained through the lens of scientific methodology.

KEYWORDS: *mediumship, etheric body, ideoplasty, hypnosis, positivism, paranormal phenomena, spiritist séances*

SŁOWA KLUCZOWE: *mediumizm, ciało eteryczne, ideoplastyka, hipnoza, pozytywizm, zjawiska paranormalne, seanse spirytystyczne*

Mediumship at its roots, dating back to around the mid-1870s, was supposed to be a scientific discipline that studied phenomena of interest to spiritualism, but separated from it by the rigour of rationalistic reasoning and scientific methodology. This is how it was viewed by Dmitri Ivanovich Mendeleev (1834–1907), who was probably the first to use this term when he requested that a special commission be established to study the phenomena that were shocking the entire world at the time. This commission was established in the spring of 1875 at the Physical Society of the University of St. Petersburg and comprised eleven researchers, of whom – apart from Mendeleev – the most outstanding was a barely twenty-six-year-old physicist named Ivan Ivanovich Borgman (1849–1914).¹ Any information at all about the remaining members – such as Khmolovsky, Kovalevsky, or Yegorov – is scarce. Three of the most renown Russian researchers of the phenomena demonstrated by mediums at the time were also invited to collaborate: Alexander Nikolayevich Aksakov (1832–1903), Alexander Mikhailovich Butlerov (1828–1886), and Nikolai Petrovich Wagner (1829–1907). However, the commission's work quickly turned into a battle of beliefs. Mendeleev accused Butlerov, Aksakov, and Wagner of mysticism, while they accused him of adopting an assumption that mediumship did not exist.² Ultimately, the commission ruled that in reality it was the unconscious movements of the people taking part in the seances or a question of deliberate fraud.³ This statement firmly ruled out the authenticity of mediumship, and consequently the need to establish a new discipline. The verdict also fell fully in line with the expectations of science of the time, which had been gripped by the positivist spirit.

Twenty years later, Julian Ochorowicz (1850–1917), also a positivist (albeit one who – according to Teodor Jeske-Choiński – wanted to unite the old order with the new [Jeske-Choiński 1885, 49]), in contrast to Aleksander Świętochowski, for example), undermined the value of earlier research, because without a reliable – in his opinion – attempt at analysis, everything that seemed to border on the miraculous had been dismissed, and so, in a way, spiritualism came into being, which tried to combine these disdained phenomena into one whole via a hypothesis regarding the action of spirits. However, Ochorowicz at the same time emphatically stated that spiritualism was ideological in nature and 'proper science could have nothing in common with this kind of unscientific and dogmatic doctrine that explained

¹ I.I. Borgman in 1897 demonstrated that X-rays and radioactive materials cause thermoluminescence.

² For more on the dispute between D.I. Mendeleev and A.M. Butlerov, see Siemion (2011).

³ For the reports and conclusions from the conducted research, see Mendeleev (1876).



the incomprehensible with other, also incomprehensible facts' (Ochorowicz 1897, 5). So, both approaches – the positivist, which denied the of a certain group of phenomena, and the spiritualist, which collated these phenomena into a doctrinal order – were wrong. And as usual, after positions had been polarised, Ochorowicz sought another solution, which he saw in mediumship, understood as a new scientific discipline connected with psychology, and broadening its horizons.

This idea was born in 1892, in Rome, during research conducted with Eusapia Palladino at Henryk Siemiradzki's villa on via Gaeta. It was then that Ochorowicz first used the term 'mediumship' to denote a new branch of scientific inquiry, the outlines of which he was just beginning to establish. Research conducted therein could – in his opinion – radically transform, or at least significantly further, knowledge of physiological processes as well as broaden views on heredity or forms of healing therapy. In addition, such studies might pinpoint the true causes of many phenomena thus far unexplained or seemingly explained, for example, by the intervention of supernatural factors (Ochorowicz 1897c, 4). However, conducting such research – considering that it involved a particularly subtle area related to psychological processes – encountered numerous obstacles related to mentality, the researchers' approach and the mediums themselves. At the same time, mediumship talents were not easy to recognise, and even if they occurred spontaneously, they could be faked. The subject matter of the research therefore required the right kind of approach, which was usually lacking.

Ochorowicz noted, not without some bitterness, that mediums were usually influenced by people 'looking for miracles, not scientific facts, and practised exclusively in the realm of wishes, which had nothing to do with science' (Ochorowicz 1897c, 4). Worse still, this situation had a lasting impact on them, creating a set of behaviours that were difficult to reverse. Meanwhile, extracting the mediums' full potential required 'long, arduous work, attention and patience, with the constant participation of the same group of experimenters' (Ochorowicz 1897c, 4), who were also not easy to gather. At the same time, Ochorowicz firmly rejected the thesis often formulated at that time that the modest number of mediumship events where fraud had not been proven was evidence that people gifted with such skills were lacking. This was a veiled accusation of fraud regarding the mediums and of incompetence regarding the researchers. According to Ochorowicz, there were many more people with mediumship talents than one might have thought, but they were often unaware of their own abilities or did not reveal them for fear of ridicule, accusations of fraud, or because of religion or health. In addition, they sometimes yielded to the wishes of their families, who opposed



such experiments for various reasons, including those already mentioned (Ochorowicz 1897c, 4). In addition, the nature of these phenomena required special procedures, which researchers, concentrating solely on detecting fraud, generally did not pay attention to. The situation was further complicated by the particularly large number of frauds, especially among paid mediums, who had the audience's expectations to meet.

Ochorowicz therefore clearly distinguished conscious, planned and deliberately performed frauds from unwitting, unconscious attempts to fulfil the experimenter's demands, in a situation where they exceeded the medium's current psychic powers. Furthermore, according to Ochorowicz, unconscious deceptions were extremely common in the case of phenomena he referred to as lower-order – table-turning or the movement of other objects – and even during the seemingly miraculous discovery of hidden things or automatic writing sessions. Ochorowicz explained all these cases by the operation of mechanisms such as unconscious hand movements, reflexively directing the gaze towards hidden objects or the unconscious execution of imagined movements.

So, table-turning was supposed to be caused by the involuntary pressure of hands resting on its top, and if this piece of furniture spelt out the answers to questions, it was because the people surrounding it unconsciously transmitted these answers themselves in a previously established code. Therefore, the phenomena occurring during most séances ultimately depended on mechanical reactions, for which different people had a stronger or weaker predisposition, if any. That is why these experiments often yielded poor results.

Unconscious deception – according to Ochorowicz – could also occur in the case of 'magic' pendulums, i.e. rings suspended on a thread that tapped out a predetermined number. This was based on the unconscious execution of imagined movements, which Ochorowicz called ideoplasty. It was also connected with finding hidden objects or even guessing numbers, because the eyes or hands might unconsciously point to hiding places, and the fingers could twitch to reveal the right number. Similarly, Ochorowicz considered automatic writing to be the result of unconscious transfer of thoughts and ideas onto paper.

As a result, all phenomena classified by Ochorowicz as lower-order mediumship could be connected with involuntary deception, which is why he claimed that 'all lower-order mediumship is an unconscious deception of oneself and others' (Ochorowicz 1897b, 4). Yet, at the same time he considered it to be an initial stage that anyone with paranormal abilities had to go through before they learned to demonstrate more extraordinary phenomena such as telekinesis, levitation, and everything that, according to Ochorowicz,



could only be explained by accepting the hypothesis that ‘there is a force in the human organism that can act beyond the surface of the body’ (Ochorowicz 1897b, 4). However, appropriate work with the medium was required in order to obtain such results.

‘In order not to help himself mechanically, the medium must exercise self-control, which he is not always capable of,’ wrote Ochorowicz. If, at such a moment, the researcher did not prevent mechanical action, the experiment would be wrongly considered an unquestionable attempt at fraud. This is exactly what happened – according to Ochorowicz – during experiments with Eusapia Palladino (1854–1918) in July 1895 in Cambridge, when Richard Hodgson (1855–1905), invited by Frederick Myers (1843–1901) to conduct experiments with her, was to prove Eusapia’s fraud. However, Ochorowicz consistently ruled out this possibility, noting that – contrary to what the press wrote – nothing was confirmed to have happened at the time except for the medium’s hands or feet repeatedly losing control, and the mere act of twitching a hand or a leg could not prove that the medium was faking anything. Meanwhile, Eusapia was not only accused of fraud, but all other observations were also discredited, even those conducted under the strictest supervision by the greatest authorities in the world of science, such as experiments that had taken place a year earlier in Charles Richet’s completely isolated villa on a deserted island. There was no question of any fraud at that time, because the medium was monitored by electrical equipment, and only researchers were on the island. Despite the exceptionally rigorous standards of verification, these experiments fully confirmed Eusapia’s abilities and completely convinced Charles Ségard (1854–1918), Oliver Lodge (1851–1940), Frederick Myers (1843–1901) and Bérétt, while only Henry Sidgwick (1838–1900) could not bring himself to fully believe it and – as Ochorowicz wrote – systematically, although unsuccessfully, ‘looked for accomplices lurking in the dark corners, torch in hand’ (Ochorowicz 1897a, 4).

Therefore, when working with mediums, it was necessary to block mechanical actions, while at the same time creating a scenario where phenomena that Ochorowicz called pure might occur – caused by that elusive something that nevertheless revealed itself through its own action and thus provided the key to itself. Then the gates of unimaginable, or even unbelievable, reality would open. The most improbable occurrences could be observed in full light and at a considerable distance from the medium, which excluded the possibility of any mechanical action. However, most of these phenomena could be performed mechanically, and so accusations of dishonesty were so easily thrown. At the same time, Ochorowicz believed that their seemingly mechanical nature led to a very risky hypothesis, albeit justified in the light



of the facts. They seemed to indicate that the aforementioned ‘force that can act beyond the surface of the body’ had some form of tool – for instance, something similar to a hand operating beyond the medium that could, at the same time, move or lift objects, leave imprinted traces, and even create apparitions (Ochorowicz n.d., 153–160). Could it be that the human organism – in addition to its visible form, i.e. the material body – had another form, capable of activity outside the biological organism under certain conditions?

Ochorowicz considered this to be the only possible explanation and assumed that the human body is surrounded and permeated – as if by an atmosphere – with something that is also organic in nature, but at the same time extremely subtle in consistency and made of ether,⁴ as he believed. This layer simultaneously connects with the nervous system so that in certain situations it can take over more or less control over it, or even ‘unplug’ from the material body in order to act more effectively in the subtle body surrounding and permeating it (Ochorowicz 1893a, 138).

Here Ochorowicz recalled hypnotic experiments, which led to the conclusion that a person’s passive powers, such as feeling, do not have to end on the body’s surface. Mediumship, on the other hand, would go further and show that active powers can also cross these boundaries (Ochorowicz 1893a, 138). The hypothesis of the subtle body’s ability to act beyond the body would also serve to explain the extreme exhaustion mediums felt when awakened from a trance. A person immersed in normal sleep, Ochorowicz argued, wakes up well rested, because they have not been doing anything. Therefore, if mediums are so tired after coming out of a trance, even though they have not shown any sign of physical activity, they must have been subject to some considerable effort, probably from that invisible etheric body. For Ochorowicz, the mediumistic trance was simply ‘a special form of magnetic sleep, induced with the co-participation of several unconscious magnetisers, i.e. co-participants in the session,’ which is why the medium was in a relationship ‘not with one magnetiser, but with the entire circle’ (Ochorowicz 1893, 138). In connection with this, the researcher assumed that ‘mediumistic manifestations can be included as a special branch of hypnotic and magnetic phenomena,’ because they all have a great deal in common, and what distinguishes mediumistic occurrences the most is the possibility that the boundaries of the biological organism might be crossed (Ochorowicz 1893, 119).

⁴ The ether theory was widely accepted at the end of the 19th century. It explained the phenomenon of light and electromagnetic waves propagating in a vacuum via the hypothesis that a medium existed – undetectable by instruments – that was thought to conduct these waves.



Since the active powers transcend the boundaries of the body, the 'dynamic atmosphere' surrounding a person must have certain properties of his or her essence (Ochorowicz 1893a, 138). However, the 'dynamic atmosphere' hypothesis was insufficient for Ochorowicz to explain the complexity of mediumistic phenomena. He therefore once again cited hypnotic experiments, which consisted in transmitting a specific state such as paralysis or aphonia from one person to another, and thus indicated that this state might be externalised and transferred. A similar process of externalisation and transfer was supposed to cause mediumistic phenomena, except that the energy needed required to do so was directed at the surroundings, not at another person. Ochorowicz called this neuromuscular energy, which could be misleading, because it was not about the action of the material body, but of the 'dynamic atmosphere' – the subtle envelope surrounding and permeating the material body. According to Ochorowicz, it had to be acting by transmitting impulses through the ether, because 'a foreign organism is something external to our organism and the link between the two cannot be nerves, but only ether' (Ochorowicz 1893a, 138).

The 'dynamic atmosphere' and 'transfer' hypothesis was supplemented by Ochorowicz with the hypothesis of ideoplasty, or the realisation of an imagination (idea).

This realisation of imaginations was actually a well-known phenomenon. Indeed, if someone who is warm is suggested that they might feel cold, they will soon start to feel so, and their body may even break out in 'goosebumps.' In a similar way – stated Ochorowicz – the idea of inertia can cause inertia, and the idea of movement can provoke movement. However, these commonly known forms of ideoplasty do not exceed the boundaries of the body. On the other hand, mediumistic phenomena seem to indicate the possibility that ideas might also influence the surroundings. The acoustic or light effects occurring during the séances, and even materialisations, would therefore be caused by their imaginations (Ochorowicz 1893a, 138). Ochorowicz was aware that with this thesis he was resuming 'Platonic ideas as prototypes of things.' Worse still, he was venturing into the area of magical thinking, because he was blurring 'the boundary between thought and thing' (Ochorowicz 1893b, 148). However, he was faced with the choice of either denying facts of which he was certain or bearing witness to the truth. So he went further, trying to explain the probable mechanism of the observed phenomena on the basis of the theories that had found favour with science at that time.

'Our sensual worldview,' he wrote, 'makes us believe that man, as a "thing among things", has a strictly limited surface' (Ochorowicz 1893b, 148), although some hypnotic phenomena contradicted this. At the same time, the



human body 'is a seat of constant movements, constant transformation of matter within and exchange of matter between itself and the environment; it is a dynamic focus that must radiate outwards – so it has its own atmosphere, both material (Jaeger) and dynamic (Richardson), which extends its individual boundaries to a greater or lesser extent' (Ochorowicz 1893b, 148). And since the organism 'is the hearth of various forces, it must be in some connection with the forces of the environment' (Ochorowicz 1893b, 148). So if a thought appears in the human brain, one may say that it is either a state of the brain or accompanied by some state of the brain. This state must be reflected in matter, especially the subtle matter that is elusive to instruments, that is, the ether, which was believed to fill the universe. Therefore, 'thought, whatever it is in itself, is at the same time a certain movement of the ether' (Ochorowicz 1893b, 148) unhindered by the surface of the body. Therefore, if we look at thought as a specific state inside the body – let's call it 'State A' – we also have to acknowledge that it corresponds to some external 'State A.' So, 'the dynamic state of the ether is associated with the corresponding state of the brain we call thought' (Ochorowicz 1893b, 148). Of course, the ether not only 'conducts' our thoughts, states and feelings externally, but also the thoughts, states and feelings of others deep within us. We are therefore 'an inseparable, continuous part of the universe, to which only our sensual, broad worldview, based on the inadequacy of the senses, gives firm boundaries' (Ochorowicz 1893b, 149). However, if sensory stimuli disappeared and those of a more subtle nature came to the fore, then some astonishing phenomena would probably occur such as vision without eyes, touching from a distance or the realisation of imagination – for instance, the imagination of sound might indeed cause vibrations in the air that would cause a specific acoustic effect.

According to Ochorowicz, the hypothesis of an etheric body operating in a space filled with ether, combined with an assumption formulated by science about the variable density of ether, would serve to explain all mediumistic phenomena. However, he stipulated that although the concept of a human being's 'duality' dates back to the most ancient times and occurs in various systems, both religious and philosophical, for him the concept of an etheric body had a different meaning. He was not concerned with a transcendent or 'extra-physiological' sense, but only with the other, invisible pole of what is visible and what we call the body. At the same time, he believed that this invisible component was the real springboard of physiological processes (Ochorowicz n.d., 158 ff).

Ochorowicz tried to illustrate this idea with the example of a magnet surrounded by iron filings. 'If one pole of a simple magnet,' he wrote, 'is



surrounded by iron filings, it will grow into a body, as if it were, along the lines of force which are thus materialised, plasticised, while the existence of similar lines of force at the other pole, or even the very existence of the other pole, and the neutral line connecting them, will remain completely hidden from the eye and known only to the initiated' (Ochorowicz n.d., 159 ff). According to Ochorowicz, the existence of something that might be called an invisible matrix – forming what is visible and operating in visible space, but also invisible yet capable of leaving visible traces of its action – seemed to be evidenced by phenomena such as phantom sensations or the reconstruction of severed body parts in some animals, and the healing of wounds in others, i.e. the regeneration of damaged tissue. This would also be suggested by the fact that the body retains the same appearance despite all of its atoms having been replaced many times. Moreover, according to Ochorowicz, the etheric body was not only the property of people or – more broadly – of living matter. He stated that 'something like the etheric body should be attributed to crystals, which not only arrange themselves according to certain lines of force, but also strive to recreate the edges that have been knocked off in a solution of the same salt' (Ochorowicz 1893c, 294).

Therefore, everything that takes on some form, regardless of whether it is alive or not, must have 'centres of concentration that preserve this form and some lines of force that delimit it and separate it from other bodies; otherwise their atoms would immediately disperse,' (Ochorowicz 1893c, 294) Ochorowicz concluded. It was these hidden, elusive centres that were truly of interest to him, because he believed that they determined the shape life took, and perhaps even life itself. And if he was preoccupied by mediumistic phenomena, it was primarily because he associated them with the hope of unveiling the mystery of that hidden efficient cause and discovering the laws according to which it operated. The experiments with mediums were supposed to help achieve this aim.

So, this invisible yet active alter ego seemed to have the aforementioned ability to transcend the boundaries of the body or even separate itself from it, for example, in broad daylight to leave traces in a clay vessel (Ochorowicz n.d., 155 ff) two meters away from the medium or – again, in broad daylight – to move a compass needle by fifteen degrees and then make it swing like a pendulum, despite the dial being covered by glass, which clearly did not constitute an obstacle (Ochorowicz n.d., 63 ff). Such events required a specific force exerting pressure, and therefore it was necessary to 'concentrate' matter, as it were. In some cases, Ochorowicz noted, this matter, which he had observed with his own eyes, took on visible shapes even in broad daylight. Therefore, this invisible alter ego seemed to be able to operate matter



to some extent – to form it (material ideoplasty) or penetrate it – and also move objects. On this basis, Ochorowicz concluded that while in the organic body matter dominates the spirit (imagination), the etheric body is governed primarily by imagination, subordinating matter to itself (Ochorowicz n.d., 70).

However, if this invisible gestor could operate matter, the question arose as to where it procured it? In the example of the magnet, the filings revealing the rules of its operation came from outside. Ochorowicz wondered whether the material necessary for materialisation, moving objects or leaving imprints and casts also came from outside. In his opinion, this hypothesis would be supported by experiments in which the weight of the materialised form measured turned out to be close to half the weight of the medium, or when the weight of the medium was observed to have significantly dropped during a séance. Furthermore, in studies by Cromwell Fleetwood Varley (1828–1883) and William Crookes (1832–1919), the electrical resistance of the materialising bodies turned out to be significantly greater than that of human bodies, which suggested that the apparitions must have been created from a greatly diluted substance. This data, combined with measurements of gravity, led Ochorowicz to believe that the etheric body, or ‘double’ (as he would refer to it)⁵ could to some extent deconstruct the structure of the biological body and – in addition to energy – draw from it the atoms necessary to obtain the phenomena demonstrated by the mediums. Therefore, according to this concept, materialised figures would be created by the etheric body (the ‘double’), which would attract atoms and give them shape (Ochorowicz 1893d, 313). It would also have the ability to leave the material body (while maintaining some connection with it), which allowed the apparitions to appear at a considerable distance from the medium. This hypothesis was further supported by the fact that the more complete and autonomous the materialisation was, the more lifeless the medium appeared to be. In general, the creation of pure mediumistic phenomena came at an enormous cost to the mediums, as evidenced by their exhaustion, which may have also resulted partly from the loss of matter, because after the session ended they did not always return to their original weight (Ochorowicz 1893e, 268).

Ochorowicz himself thought this hypothesis too bold and stipulated that the facts behind it ought to be thoroughly and unconditionally verified, although were it not for the ‘extraordinariness of the phenomena, were it

⁵ The Polish term he coined (*dwojnik*) was certainly inspired by the Russian word meaning ‘doppelgänger’.



merely about some new discovery of physics or chemistry, far fewer facts than those already discovered by researchers of mediumship would suffice to accept them in science' (Ochorowicz 1897c, 4). At the same time, it seemed unlikely that 'any doctrine could encompass such wide and relatively intelligent circles, having nothing to support it but illusions and deception' (Ochorowicz 1897, 5). He also emphasised that he viewed the phenomena described 'exclusively from the perspective of a naturalist and psychologist, who is highly interested in everything that reveals any secret of nature or the human soul, who seeks to explain, rather than promote a love of the miraculous' (Ochorowicz 1897, 4). In this theory, Ochorowicz also saw 'a bridge between the imagination and the thing, between spirit and matter' (Ochorowicz 1893b, 149).

The relationship between spirit and matter had preoccupied Ochorowicz from his student years. He devoted his youthful study to it (Ochorowicz 1872). Here, he wrote that concepts such as the spirit or soul essentially symbolise internal, psychological processes, which, although not subject to the senses, are not separated from matter, because it is difficult to imagine thought without the brain. Therefore, a reciprocal relationship existed here, consisting in the fact that the properties of matter were forces, including psychological ones, and in turn matter was its properties, whereas everything visible, or corporeal, turned out to be only an external form or manifestation of these properties (Ochorowicz 1872, 110). His later concept of mediumship phenomena was essentially founded on this thesis, complemented it and developed it.

Although Julian Ochorowicz's reflection was based on scientific findings accepted at that time, it met with strong resistance from academic circles, albeit without any serious substantive discussion. One of the most distinguished researchers of that era, a pioneer of neurophysiology in Poland named Napoleon Cybulski, wrote that, 'knowing Mr. Ochorowicz's thirty years of work in the field of Polish science,' he believed that 'his so-called scientific works have no place' in a forum that 'is in fact committed to science' (Cybulski 1909, 1), and that beneath the mediumistic phenomena themselves lay nothing but collective suggestion and the skill of fraudsters preying on gullible researchers. Meanwhile, even before Ochorowicz announced his theory of mediumistic phenomena, this esteemed neurophysiologist explained that hypnosis involved the medium 'unplugging' from the reception of sensory stimuli, which was supposed to increase his sensitivity to more subtle stimuli (Cybulski 1887, 62–66). Julian Ochorowicz also followed this line of thought when he explained the trance state in both hypnotic and mediumistic phenomena.



Despite strong resistance, Ochorowicz's theory did find supporters, and we shall never know which path it would have been eventually followed if Albert Einstein's theory of relativity, announced in 1905, had not replaced the ether theory. Gradually, most physicists began to consider the concept of the ether as unnecessary, and around 1940 this finally became the dominant belief in science. Nevertheless, in 1951, the Nobel Prize winner Paul Dirac (1902–1984) recalled it, claiming that in the light of contemporary knowledge, and especially quantum mechanics, 'the ether is no longer excluded by the theory of relativity,' and was in fact becoming an indispensable concept in the new theory of electrodynamics (Dirac 1951, 906 ff). The idea of the ether was later recalled by Nobel Prize winner Louis Victor de Broglie (1892–1987) who discovered the wave nature of electrons, another Nobel Prize winner, and one of the founders of quantum electrodynamics, Richard Feynman (1918–1988), co-founder of quantum mechanics John Stewart Bell (1928–1990), as well as Nobel Prize winner Robert Laughlin (1950-), who explained the fractional quantum Hall effect.

The rejected theory was not consigned to oblivion and although it returned in various guises, it retained its basic idea that the vacuum is filled with something that has physical properties and that allows for the occurrence of empirically observed physical processes. It is therefore worth recalling Ochorowicz's theory, because it is possible that it will also provide inspiration for future discoveries.

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