



Deposited via The University of Leeds.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/148047/>

Version: Accepted Version

Book Section:

Mussell, J (2020) "Body Separates: Spirit Unites": Oliver Lodge and the Mediating Body. In: Mussell, J and Gooday, G, (eds.) A Pioneer of Connection: Recovering the Life and Career of Oliver Lodge. Science and Culture in the Nineteenth Century. University of Pittsburgh Press, Pittsburgh, Pa., U.S.A., pp. 198-214. ISBN: 9780822945956.

© 2020 University of Pittsburgh Press. This is an author produced version of a book chapter published in A Pioneer of Connection: Recovering the Life and Work of Oliver Lodge. Uploaded with permission from the publisher.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

[this is a preprint of the chapter published in *A Pioneer of Connection: Recovering the Life and Career of Oliver Lodge*, edited by James Mussell and Graeme Gooday (University of Pittsburgh Press, forthcoming). Please cite the published version]

‘Body Separates: Spirit Unites’: Oliver Lodge and the Mediating Body

James Mussell

In 1918 Oliver Lodge wrote another book dedicated to the memory of a young man killed in the war. *Christopher*, like *Raymond* (1916), was an expression of faith in human survival, the book serving as both memorial to the life lived as well as an apparatus through which to comprehend ongoing life beyond the grave. Christopher Tennant was the nephew of Frederic Myers, psychical researcher and Lodge’s friend, and the book’s subtitle, ‘A Study in Human Personality’, deliberately evoked Myers’s *Human Personality and Its Survival of Bodily Death* (1903). For Lodge, death was not separation but a different form of connection. ‘For we have not really lost them’, he writes, ‘they feel themselves to be nearer to us than before; death is not estrangement, it has been felt by many as a kind of reunion. Body separates: spirit unites.’¹ Inscribed within the body of the book, the personality of the dead soldier was given integrity enough to survive in the world beyond.

Embodiment requires edges, differences that dictate where one body ends and another begins. Lodge, as both physicist and psychical researcher, dedicated his career to making the immaterial material, to giving the intangible bodily form. In his autobiography, *Past Years*, he claimed that he had always been interested in the ‘imponderables’, ‘the things that worked secretly and have to be apprehended mentally.’² Chief amongst these was the ether, the elusive medium thought to account for all electromagnetic phenomena including light. To

think the ether, Lodge gave it edges, a provisional materiality so that it could act like a medium and produce difference. In Lodge's tactile imagination spirit had a body of its own.

Matter individuates, but spirit threatens to dissolve difference in radical oneness.³ In his work, Lodge kept returning to embodied forms in the ether in order to make it comprehensible. In what follows I explore what such thinking has to offer us as we puzzle out embodiment in a digital age. Born in 1851, Lodge was a Victorian, at home amongst steam, print, and rail; yet his work on electromagnetism meant that he was at the forefront of the media technologies that would characterise twentieth-century modernity. The wires of the telegraph had introduced a mode of signalling that was potentially instantaneous; with the introduction of wireless telegraphy this medium was universalized, putting everything, potentially, in touch with everything else. More than any other technology, wireless brought the ether into the world, but the ether, as a perfect medium, not only dissolved the boundaries between things but also suggested they were not boundaries at all. Lodge was a pioneer of these tele-technologies and recognized the philosophical consequences of the new regimes of connection they introduced. As he grappled with the ineffable, always just beyond the bodies pressed into service, Lodge speculated on the relations between matter and spirit, media and message, form and content, body and soul.

This chapter details Lodge's response to an ether that would decompose the world. In the first section I describe how, in attempting to detect the ether, Lodge gave it shape, delineating its forms while allowing the pure, unmodified ether to reconstitute itself once more out of reach. The second addresses the way Lodge used material media to maintain the coherence of the spirit in a medium that denied difference. For Lodge, consciousness was underpinned by an etheric essence that, because etheric, was the true seat of the self; however, whereas the ether, opposed to matter, had the potential to overcome difference, in the spirit realm such properties constituted a threat to the persistence of the individual soul.

While he investigated a wide range of technologies to make contact with the spirits of the departed, from séance sessions with trance mediums to table tapping and automatic writing, it was to the book that Lodge turned to embody the dead.

Body separates; spirit unites. In Lodge's conception of the universe, ether complemented matter, the other term in a binary pair that created difference. However, as he worked to make the ether sensible, it could not but become embodied, leaving a purer, rarefied ether to be pursued anew. Today, the ether has not really gone away. Early fantasies of cyberspace were based on an etheric world offered as an alternative to the 'meatspace' that we habitually occupy. Equally, the rhetoric of the cloud insists that not only is data is of the ether but it can also be stored there, temporarily given form in whatever device is at our fingertips. Lodge has much to teach us about such thinking, about its pleasures and its repressions. He was fixated on the transcendent, whether the soul overcoming the bounds of the body or the message its media. Yet no matter how much he insisted on continuity, of an ether that effaced difference, he still longed for a world in which discrete parts had some sort of integrity, a world in which personality, in particular, could persist. Standing on the brink of the electrical age, Lodge utilised new technologies to maintain the ether and so shore up the universe against those who insisted on its radical discontinuity. While this reliance upon the ether was increasingly anachronistic – in 1913 Lodge himself called it 'the sheet anchor of nineteenth-century physics'⁴ – it should not simply be dismissed as a reactionary effort to keep modernity at bay. As he used the ether to surpass the bounds of the material world, Lodge came to realize that a body of some sort was the precondition of difference. The magic of media – the way that mediating objects somehow transcend the here and now – depends upon material forms.

The Matter with Ether

In 1913, Lodge gave the Presidential Address at the British Association for the Advancement of Science on the subject of 'Continuity'.⁵ Issued later that year as a short book, *Continuity*, Lodge's Address was a plea for the integrity and connectedness of the physical universe against those who would break it up into parts. For Lodge, this was an important moment. Founded in 1831, the British Association was intended to provide a public audience for the latest in scientific progress. Lodge himself had been a keen attender of its meetings since 1873 and now, forty years later, he held the Presidency. Of all the years, this was the one at which he should not have occupied the Chair. Lodge had been Principal of the University of Birmingham since its foundation in 1900 and it was a longstanding convention that the President not host the Association in his own city. However, the sudden death of the sitting President, Sir William White, meant the Chair fell to Lodge when plans were already in place.⁶ Speaking on behalf of the Association in which he believed and in the city he had made his home, Lodge maintained that the ether was the connecting medium that bound the universe together. 'I am myself an upholder of *ultimate* Continuity' Lodge argued, 'and a fervent believer in the Ether of Space' (32). Whereas those invested in the new physics, in relativity and quanta, could only divide things, describing but not explaining, the ether provided the means to ensure that the universe, and everything in it, were one.

The problem was that the ether – frictionless, elastic, and everywhere – proved to be stubbornly elusive. In the early 1890s Lodge had made an attempt to detect it: his ether whirling machine, built into the bedrock beneath University College Liverpool, tested to see whether a moving mass could drag the ether with it through space and so explain the famous null result of the Michelson-Morley experiment.⁷ Since then, Lodge had reconciled himself to the ether's intractable tendency to remain out of reach, even as he made it ever more central to his conception of the universe. In his Address, he argued that the ether's elusiveness was

an inevitable consequence of its properties. ‘We must have difference to appeal to our senses’, Lodge told his audience, ‘they are not constructed for uniformity’:

It is the extreme omnipresence and uniformity and universal agency of the ether of space that makes it so difficult to observe. To observe anything you must have differences.⁸

The ether represented disembodiment, a perfect medium that was defined by its uniformity, yet this meant that it was impossible to think, let alone detect. Without differences of its own the ether remained imponderable, its only existence as the shadowy other to matter.

Lodge’s Presidential Address was not just a defence of the ether: it was also authorized by the ether’s conceptual slipperiness. While his scientific reputation was founded on his work in electromagnetism in the 1880s and 1890s – research that, for Lodge, made the ether tangible – it was for his more speculative uses of the ether that Lodge was better known amongst the wider public. Since he had become Principal at Birmingham, Lodge had developed a distinctive philosophy, articulated in a string of popular books, that united science, spiritualism, and Christianity, with the ether providing the necessary common ground.⁹ Since becoming interested in psychical research in 1883, Lodge had been attuned to the boundary between orthodox science and spiritualism and carefully avoided the kind of work that might get him labelled a crank. Nonetheless, as his public reputation grew as a man of science, he was increasingly comfortable making the case for broadening the scope of scientific investigation to include psychical phenomena. In 1891, when he was President of Section A at the British Association meeting in Cardiff, Lodge used anticipated opposition to the National Physics Laboratory as a pretext to defend ‘free and open inquiry, for the right of conducting investigation untrammelled by prejudice and foregone conclusions’.¹⁰ In that spirit, he took the opportunity to argue that phenomena such as thought transference – and so what Lodge described as ‘the whole borderland between physics and psychology’ – be

subjected to scientific scrutiny.¹¹ Twenty years later, as President of the British Association and with a string of successful books behind him, Lodge put the ether's capacity to sustain his synthetic philosophy to the ultimate test.

In the final stages of his 1913 Address, Lodge insisted that the President of the British Association 'should not be completely bound by the shackles of orthodoxy, nor limited to beliefs fashionable at the time' and then went on to set out his position:

In justice to myself and my co-workers I must risk annoying my present hearers, not only by leaving on record our conviction that occurrences now regarded as occult can be examined and reduced to order by the methods of science carefully and persistently applied, but by going further and saying, with the utmost brevity, that already the facts so examined have convinced me that memory and affection are not limited to that association with matter by which alone they can manifest themselves here and now, and that personality persists beyond bodily death.¹²

For Lodge, the ether warranted these audacious speculations. For those who read his books, such remarks would have been utterly predictable but even his 'present hearers' would not have been that shocked: after all, Lodge's connection with the Society for Psychical Research was well-known and he had long appealed for broadening the scope of legitimate scientific enquiry. But Lodge did not just want to state, publicly, his belief in survival; he also wanted to make the case for an etheric realm resistant to scientific analysis but there nonetheless. The 'occurrences' Lodge described were not just 'occult' in the sense that something currently hidden would eventually be explained through conventional scientific methods, but rather they were 'occult' because they could only be known indirectly, through their effects on matter. For Lodge, the evidence:

goes to prove that discarnate intelligence, under certain conditions, may interact with us on the material side, thus indirectly coming within our scientific ken; and that gradually

we may hope to attain some understanding of the nature of a larger, perhaps ethereal, existence, and of the conditions regulating intercourse across the chasm.¹³

At stake here was the possibility of a materialist practice, science, not only to deal with things like ‘memory and affection’ but also the basis on which such things were made present ‘here and now’. Only open-minded scientific endeavour would be able to register the influence of this ethereal existence upon matter, tracing a hinterland in negative that could complete the scheme of the universe and so offer a bulwark against a crude materialism that would deny the ether its very existence.¹⁴

Posited in opposition to matter, the ether provided the common ground from which to oppose materialism while, nonetheless, making sense of the material universe. In a later essay, ‘Ether, Matter, and the Soul’ (1918), Lodge maintained that a ‘duality runs through the scheme of physics – matter and ether’; however, the way he formulated the ether meant that it kept undoing the very difference it was supposed to sustain.¹⁵ Nowhere was this more clear than in his understanding of electricity. In the first edition of *Modern Views of Electricity* (1889) Lodge, true to the Maxwellian tradition, maintained that all electromagnetic phenomena derived from conditions in the ether: all that was needed, he argued, was to put it into motion. The question ‘what is ether?’ (*the question of the physical world at the present time*) might not be easy to answer, according to Lodge, but it was not unanswerable:

If a continuous incompressible fluid filling all space can be imagined in such a state of motion that it will do all that ether is known to do; if simply by reason of its state of motion, it can be proved capable of conveying light and of manifesting all electric and magnetic phenomena which do not depend on the presence of matter; and if the state of motion so imagined can be proved stable and such as can readily exist, the theory of free ether is complete.¹⁶

There were four classes of electricity for Lodge – static (at rest); current (in locomotion); magnetism (in rotation); and light (in vibration) - and all that was needed was a model of the ether that could account for them simply by the way that it moved. Throughout the book Lodge provided a series of models, some of which he built, to which the behaviour of the ether might be compared.¹⁷ These became most fully elaborated in chapters ten and eleven, when Lodge offered mechanical models for the magnetic field and current induction.¹⁸ Here, the ether became an interlocked set of cogwheels and the various electromagnetic phenomena represented by changing the gearing or direction of motion. Lodge situated his model in a tradition that went back to Descartes, but it had more immediate antecedents in the work of Maxwell and Kelvin in the 1860s.¹⁹ The clarity of his cogwheel models allowed Lodge to demonstrate that electromagnetism could be an effect of motion, but they did so by making the ether mechanical.

Lodge never built a full cogwheel ether, but it was so clearly realised on paper that he did not need to. This slippage between the ether and the cogwheels, between the elusive medium and its representation, obscured the distinction between free ether and matter with which Lodge began. The distinction was further undermined by Lodge's speculations as to the constitution of matter itself. Lodge was particularly taken with Kelvin's vortex model of atomic structure and, in a lecture reprinted in *Modern Views of Electricity*, described it for his readers:

The atoms of matter, according to it, are not so much foreign particles imbedded in the all-pervading ether, as portions of it differentiated off from the rest by reason of their vortex motion, thus becoming virtually solid particles, yet with no transition of substance; atoms indestructible and not able to be manufactured, not mere hard rigid specks, but each composed of whirling ether; elastic, capable of definite vibration, of free movement, of collision.²⁰

On the one hand the etheric strains called electromagnetic force were the effect of rotating matter; on the other, that matter itself was produced by rotating ether. In Lodge's mechanical ether difference was performative, the result of motion in the universal substrate rather than any essential distinction of being.

In *Modern Views of Electricity* Lodge understood electricity as an etherial phenomenon caused by the shearing of the ether into positive and negative parts. The emergence of the electron, however, gave electricity mass, a body, and so, when it came to the third edition of *Modern Views* (1907) he could not account for it through motion alone. In the preface, Lodge insisted that the doctrines expounded in the book – ‘the electrical nature of light, a recent theory of matter, and an ethereal view of electricity’ – were unchanged, and, sure enough, electricity was still produced when the ether was sheared.²¹ However, whereas in 1889 the sheared ether simply produced difference, positively and negatively charged portions, now it could produce matter, able to move about independently. ‘The negative electricity’, Lodge writes, ‘when separated, is freely mobile and easily isolated: it is what we experience as an electron.’²² A few years previously, in his Romanes Lecture of 1903, Lodge had noted that the electron ‘displaced the so-called atom of matter from its fundamental place of indivisibility.’²³ No longer the place where the ether acts as if other than itself, the atom had now been opened out. ‘An atom is not a large thing’, Lodge argued, ‘but if it is composed of electrons, the spaces between them are enormous compared with their size – as great relatively are the spaces between the planets in the solar system.’²⁴ At the end of the final chapter of the new edition of *Modern Views of Electricity*, Lodge summarized his position:

Throughout the greater part of space we find simple unmodified ether, elastic and massive, squirming and quivering with energy, but stationary as a whole. Here and there, however, we find *specks of electrified ether*, isolated yet connected together by fields of force, and in a state of violent locomotion.

These ‘specks’ are what, in the form of prodigious aggregates, we know as ‘matter’; and the greater number of sensible phenomena, such as viscosity, heat, sound, electric conduction, absorption and emission of light, belong to these differentiated or individualized and dissociated or electrified specks, which are either flying alone or are revolving with orbital motion in groups.²⁵

With mass and charge, it was electrons, electrified specks swirling in the ether, that now marked the point at which matter became differentiated, creating aggregated clumps that themselves caused etheric effects.

From things that could be touched, to the atoms that accounted for molecular behaviour, to the electrons that marked the atomic interior: what appeared to be discrete entities were revealed to be connected at a deeper level. Yet while matter decomposed when thought, there was always the unmodified ether, from which the mechanism was composed, to stop it disappearing completely. Given Lodge’s preoccupations, it is unsurprising that there was something theological about the way the ether functioned as a kind of ontological safety net. Whenever some sort of action was attributed to the ether, it necessarily took on shape, becoming other to the undifferentiated ether from which it was composed. Even Lodge’s mechanical models betray this tendency. In the 1889 edition of *Modern Views of Electricity* Lodge noted, in passing, that ‘since magnetic induction can spread through a vacuum quite easily, the wheel-work has to be largely independent of material atoms.’²⁶ This was never simply a mimetic model of atomic structure, in other words, but a generalizable model of mediation that could apply at molecular, atomic, subatomic, or etheric levels. In the 1907 edition the chapters containing the models remain unchanged and, even though the existence of the electron meant the end of the atom as vortex ring, the lecture in which he endorsed Kelvin’s model was also reprinted. In a nod to progress, Lodge also inserted a more recent lecture in which he noted nobody ‘believes now that an atom is simply a vortex ring of ether,

and that the rest of the ether is a stagnant fluid in which the vortex rings sail about.’²⁷ Yet Lodge did not give up on vorticity entirely, regretting at that year’s British Association meeting that Kelvin had ‘of late shown a tendency to destroy his own children.’²⁸ An adaptable technology for producing difference, the vortex was compelling as it produced matter from motion even while it left what moved undefined.

‘Matter’, as Lodge put it in ‘Ether, Matter, and the Soul’, ‘appeals to our senses, but the unmodified ether makes no such appeal; it is so inaccessible that its existence even has been denied.’²⁹ In the first edition of *Modern Views of Electricity* he lamented that some were inclined to imagine the ether was ‘still a hypothetical medium whose existence is a matter of opinion’, a lament repeated in the ‘Preface’ to the 1907 edition.³⁰ While the book demonstrated the effects of the ether on matter, it could not go further and give it substance. In his Presidential Address to the British Association in 1913, Lodge claimed that ‘[m]atter it is not, but material it is; it belongs to the material universe and is to be investigated by ordinary methods.’³¹ This was a methodological approach necessitated by the ether’s properties: as matter was, according to Lodge, ‘what appeals to our senses here and now’, then materialism was ‘appropriate to the material world; not as a philosophy but as a working creed, as a proximate and immediate formula for guiding research’ (73). With only material resources to hand, the ether could only exist in provisional, embodied forms behind which pure, unmodified ether remained tantalizingly out of reach.

Lodge could not detect the unmodified ether as it did not constitute an object. Instead, it was always just beyond whatever form lay at hand, its existence posited through its otherness. In this way, the unmodified ether, that imponderable uniform medium, behaved like Derrida’s supplement: the centre that establishes the form of a structure while nonetheless being located elsewhere.³² Not even virtual – virtual forms, like Lodge’s mechanical models, still have integrity and so edges – the unmodified ether undid difference

in radical oneness; however, while held in abeyance it could serve as the source of being, of presence, filling the various forms of the universe at the expense of itself. Lodge expressed a similar idea in his book *Atoms and Rays* (1924), noting that ‘the apparent discontinuity which the Atomic Theory suggests, the discontinuous nature first of matter then of electricity, is supplemented or replaced by the absolute continuity of the connecting Ether.’³³ What is important here is the process, the way in which in striving to reach the ineffable Lodge’s imagination produced a universe made up of cascading binary pairs, in which continuity gave way to discontinuity and so on. In his 1913 Address he had described it like this:

On the surface of nature at first we see discontinuity; objects detached and countable. Then we realise the air and other media, and so emphasise continuity and flowing quantities. Then we detect atoms and numerical properties, and discontinuity once more makes its appearance. Then we invent the ether and are impressed with continuity again. But this is not likely to be the end; and what the ultimate end will be, or whether there is an ultimate end, is a question difficult to answer.³⁴

Lodge’s recognition that the ether, too, might give way, points to the primacy of material, the way this universal medium was produced rather than given in advance. In *Atoms and Rays*, Lodge speculated that it ‘will probably turn out that there is some kind of structure even in Ether, but that structure has not yet be ascertained; and when it is ascertained, it is quite unlikely that it will be of a discontinuous character.’³⁵ Each time Lodge gave shape to the ether, bringing it into the material world, he also produced the unmodified ether, that guarantee of presence kept tantalizingly at arm’s length. Lodge thought that the ether was ‘the great engine of continuity’, but, in the way that it functioned, it was more like a difference engine, producing useful mediating form on one side while re-establishing elusive, uniform, and transcendent formlessness on the other.³⁶ In its perpetual absence, the unmodified ether anchored presence for Lodge, standing for the possibility of Being, even for

God himself, but, no matter how hard he pursued it, could never serve as content. The unmodified ether could only be realized in opposition to some sort of form, produced by difference, and so intelligible to the human mind.³⁷

Raymond / Raymond

Lodge's ether was necessarily supplementary. It took on form against the undifferentiated uniformity out of reach, while, at the same time, established that uniformity *as* out of reach: in abeyance but thinkable through difference. Lodge drew upon this supplementariness to make sense of human relations, too. Etheric connection undid the boundaries that made the world meaningful and its oneness filled the gaps between people just as it did particles. Lodge's science, for instance, allowed him to mix with eminent figures on the floor of the Royal Society, but it also connected him to electrical engineers such as his collaborator Alexander Muirhead. Similarly, through his psychical research Lodge was introduced to Cambridge philosophers such as Frederic Myers and Henry and Eleanor Sidgwick. Through them he became friends with an aristocratic set that included Arthur Balfour (Prime Minister from 1902-1905 and Eleanor Sidgwick's brother) and Percy Wyndham, Lodge spending his Easters at Wyndham's house, Clouds, with the group known as the Souls.³⁸ In Birmingham, Lodge mixed with the local Liberal elite (the Chamberlains, most obviously), but also important Quaker families such as the Cadburys.³⁹ Lodge claimed his politics were of no party and instead professed a kind of casual Fabianism, informed by the political economy of John Ruskin.⁴⁰ He knew Sidney and Beatrice Webb and they published his lecture to the Ancient Order of Forresters, 'Public Wealth and Corporate Expenditure' as Fabian Tract 121.⁴¹ The ether, which was everywhere, was radically democratic. In a world where

everyone was connected, all actions contributed to the whole and so were everyone's business.

Lodge understood society in etheric terms. In his Lockyer Lecture, 'The Link Between Matter and Matter' (1925), he attacked materialism for its orientation to exteriority:

There are those who think that these material bodies represent ourselves, - our personality, our memory, and our character. If they can work out everything on that hypothesis, by all means let them do so. But let them also take the whole of the facts into account. The atoms are not isolated, and we are not isolated. We are members of one another. There is a link between the atoms. Human beings are connected, and in societies and families, and for purposes of mutual co-operation, - or, if lunacy seizes them, of extermination.⁴²

By cautioning against an emphasis on outsides, on edges, Lodge also cautioned against a crude notion of autonomy. Venerated in Victorian liberalism, the individual as self-governing, rational subject had come under sustained pressure in the latter part of the nineteenth century as a number of factors – the emergence of mass culture, the rise of socialism, the flu pandemics – suggested people were connected in mysterious ways. And, as Lodge's evocation of violence makes clear, such connections were not always benign.

In the same period, Lodge's friend and mentor in psychological and spiritual matters, Frederic Myers, had put both connection and multiplicity at the heart of subjecthood. For Myers, the conscious self was simply that best adapted to present circumstances and, lurking beneath, was a much broader subliminal consciousness that he understood as a spectrum. It was 'indefinitely extended at both ends': in one direction were the rudimentary and archaic forms no longer needed in day-to-day life; in the other, toward 'the superior or psychical end', it was capable of telepathic and clairvoyant impressions.⁴³ The subliminal consciousness meant that people were constantly in touch with one another and in ways not

accessible to the conscious self: in *Human Personality and Its Survival of Bodily Death*

Myers would extend this thesis to show how such communications continued once the body was no more.

Lodge's understanding of selfhood was grounded in Myers's thought, but, because Lodge associated spirit with ether, departed from it in significant ways. Initially sceptical about survival, Lodge had come to believe in its reality after a trance sitting with the medium Leonora Piper in 1889.⁴⁴ In the sitting, Lodge's Aunt Anne, the woman who had introduced him to science as a boy, spoke to him in her own voice through Piper. The fact she spoke in her own voice was particularly important as it was what differentiated her from any other disembodied phantoms and, of course, the embodied Piper. The problem was that such vestiges of embodiment had no place in the ether from which she apparently spoke.

The coherence of the self was maintained by its difference, imagined or otherwise, from others, yet the possibility of perfect, etheric connection threatened such distinctions. Spirit might unite, but Lodge insisted that spirits retained their individuality despite dwelling in a perfect medium that acknowledged neither a here and there nor a now and then. He proposed an explanation in 'Ether, Matter, and the Soul'. Written the same year that *Christopher* was published, the essay described an 'etherial body', a counterpart to the physical body that could provide individuated matter in the spirit world. After explaining how energy passes from kinetic to static forms, with kinetic energy characteristic of matter and static energy of ether, Lodge suggested 'that every sensible object has both a material and an etherial counterpart. One side only are we sensibly aware of, the other we have to infer.'⁴⁵ As always, the ether, out of reach, was constituted by its otherness; however, because there were things that had an etherial existence but not a material existence, the etherial, no matter how elusive, came first. 'I foresee a time', writes Lodge:

when the term soul will be intelligible, and I think it will be found that soul is related to the ether as body is related to matter. I suggest that it will turn out to be a sort of ethereal body, as opposed or supplemental to our obvious material body. (258)

Preceding the embodied self and living on after it had perished, the ethereal body was the unconscious spiritualized. Like the Freudian unconscious, its existence could only be inferred indirectly by its effects; however, because Lodge needed the dead to resemble the living, whatever personality resided in the ether had to resemble its mortal counterpart. Once granted a body, in other words, the unconscious was no longer distressingly other.

Granting the soul a body was a way of ensuring continuity between the living and the dead, but it also ensured that the dead kept their integrity in the spirit realm. In the ether force was transferred instantly and without deterioration in a kind of perpetual present. For personality to survive in this environment, to escape radical oneness, it had to become material. The ethereal body allowed Lodge's spiritualism to mediate between his science and his faith, yet the shift from soul or spirit to etheric body is telling. By technologizing the soul, granting it a body that could differentiate itself from the unmodified ether, Lodge promised humanity immortality by making spiritual existence material. As there was nothing in the ether that suggested wear and tear, the ethereal body, the true seat of selfhood, could live on after the physical body had perished. Not only live on, but be rejuvenated: 'freed from the disabilities and imperfections of matter', Lodge writes, 'it can lead a less abstracted and livelier existence' (258). The cost of such liberation, though, was loss of contact with the physical universe. Whereas the ethereal bodies of the living were indirectly disclosed through the actions of their material bodies, the dead could only become known by pressing other people's bodies into service.

For Lodge the ethereal body came first, the material body merely a temporary dwelling place for a more mysterious life elsewhere. In practice, though, the ethereal body

was only ever known as an effect of matter. This meant that the contours of the ethereal bodies of the dead could only be traced by disentangling them from material bodies of various kinds. Lodge favoured table-tapping as the most unmediated way to contact the dead. Acknowledging that it was old-fashioned, hearkening back to when spiritualism was little more than a parlour game, Lodge preferred it as it cut out both medium and spirit guide.⁴⁶ It was, though, an awkward mode of communication: like telegraphy without a telegraph code, messages were spelt out letter by letter, only making sense once the tapping had stopped. The sender that resulted from such encounters, while tantalisingly close, was unbearably inarticulate and hardly took shape at all. The cost of proximity to the other was diminished contact: for a richer encounter with the dead they had to be mediated and to understand how mediation shaped presence Lodge turned to paperwork.

Lodge believed that the most convincing evidence for survival came in the form of cross correspondences. These were messages that:

referred to some theme in an obscure way through different mediums, and by different sentences, at about the same time, so that no one medium should understand the meaning of what was being transmitted; but yet they appended some distinct sign or mark which later might be interpreted as indicating that there was a connexion between the fragments; so that, when all the messages were sent up to a central office and compared, the connexion between the different portions should be apparent, and the meaning of the whole reference become ultimately clear.⁴⁷

Such occurrences were much prized as they apparently triangulated a specific personality as a point of origin, insisting on its integrity in the otherwise undifferentiated ether. As they only made sense when collated, they relied upon writing things down, posting messages to a central location and collating them when they came in. All this sorting was a prelude to the work of interpretation: the content of the messages was often cryptic, a kind of riddle that

could only be solved by those in the know in order to establish both the identity of the sender and the authenticity of the message. To convince others, both stages – the story of the messages and their interpretation – had to be narrated, put in order so that the sender could cohere.

Accounts of cross correspondences were published in the *Journal* and *Proceedings* of the Society for Psychological Research and Lodge contributed to both publications. When he set out to offer his fullest and most personal account of survival, however, Lodge turned to the form of the book. *Raymond; Or Life and Death* (1916) records the life, death, and continuing survival of Lodge's youngest son, killed at Ypres on 14 September 1915. Published on 2 November 1916, it went through six editions before the end of the year and six more before 1919.⁴⁸ The book was an attempt to allow Raymond to cohere, to give him a body, while eliding the work done by Lodge, the mediums, and their respective spirit controls. It is organized into three sections: the first, 'The Normal Portion' consists mainly of Raymond's letters from the front. The second, 'The Supernormal Portion', consists of a series of accounts of sittings where Raymond establishes contact with Lodge or one of his family. The final section of the book is entitled 'Life and Death' and contains philosophical and speculative essays on various subjects. This composite structure, made up of disparate material, makes clear that Raymond's etheric body not only depended on doing things with material media – transcribing sittings, letters, reprinting photographs – but also transforming them, binding them into the linear form of the codex.

What separated the first section from the second was Raymond's body. The letters in the 'Normal Portion' are arranged chronologically and so establish a narrative that leads, inexorably, to Raymond's death. Their purpose, according to Lodge, was to 'engender a friendly feeling towards the writer of the letters, so that whatever more has to be said in the sequel may not have the inevitable dullness of details concerning a complete stranger.'⁴⁹

However, as letters, they also signal Raymond's writing body, something that is absent in the 'Supernormal Portion' that follows. Raymond's original letters, handwritten with a signature on the bottom, located his body in time and space through the tangible marks offered to the recipient. Without a material body to put into service, however, Raymond's etherial body had to rely on spirit controls, mediums, and the apparatus of the séance to establish its presence. To ease the transition between these two portions and so compensate for the absent material body, Lodge utilises the form of the printed book. Firstly, as we approach the crisis of Raymond's death at the conclusion of the 'Normal Portion', the linear form of the codex drives us on into the 'Supernormal Portion' beyond. Secondly, as we have only read Raymond's letters in print, the appearance of the page remains unchanged from one portion to the next. *Raymond* makes an argument for Raymond's continuity by encompassing both portions within its covers and making them parts of a whole.

While Lodge's editorial hand is present in the 'Normal Portion', arranging letters and adding the odd comment, the absence of Raymond's body means that Lodge has to do more editorial work in the 'Supernormal Portion' that follows. At stake in this section is the origin of messages and so Lodge provides a paratextual commentary on the trustworthiness of the various mediating links while suppressing his own agency as much as possible so as to let Raymond speak for himself. The bulk of contact recorded in *Raymond* was provided through two mediums, Gladys Leonard and Alfred Vout Peters, and their respective spirit controls: Leonard called upon a young girl called Fedá; while Vout Peters relied on a quixotically-named man called Moonstone. At such sittings there were, then, at least two intermediary links, one alive and one dead, between the sitter and the spirit with whom he or she wished to speak. Lodge describes the difficulties of such a mediating chain with a characteristic reference to communications technology:

The confusion is no greater than might be expected from a pair of operators, connected by a telephone of rather delicate and uncertain quality, who were engaged in transmitting messages between two stranger communicators, one of whom was anxious to get messages transmitted, though perhaps not very skilled in wording them, while the other was nearly silent and anxious not to give any information or assistance at all; being, indeed, more or less suspicious that the whole appearance of things was deceptive, and that his friend, the ostensible communicator, was not really there. Under such circumstances the effort of the distant communicator would be chiefly directed to sending such natural and appropriate messages as should gradually break down the inevitable scepticism of his friend. (87)

In an essay for the *Fortnightly Review* in 1893, Lodge imagined the telephone, along with the electroscope and galvanometer as new sense organs, technological prostheses with which to detect the ether.⁵⁰ In *Raymond*, while Lodge is concerned with the content of the communications (after all, they might be messages from his son) it is sublimated in the interest of establishing the channel between this world and the next. Despite his desperation for Raymond to cohere, Lodge privileges medium over message. Raymond is repressed in the hope that he might take shape.

This was represented typographically on the page. Figure 13.1 shows a typical example of a transcript. The sitter's questions are attributed to 'A.M.L.' (i.e., Lodge's son, Alec), but the responses are unattributed.⁵¹ Unanchored by a name, these complex utterances – Leonard reporting Feda who in turn reports Raymond – are left to stand for themselves. Lodge's interventions are in square brackets, marking them as commentary on the exchange rather placing him in the scene as participant. There are times, though, when this textual order is disturbed. In chapter twenty of the Supernormal Portion, Lodge gives details of a sitting between his wife, Mary, and Leonard, in which Raymond, via Feda, reports meeting Jesus.

Lodge is a little squeamish about this, and strikes out the descriptions of both Jesus and the Highest Sphere in which he dwells (figure 13.2):

Until the case for survival is considered established, it is thought improper and unwise to relate an experience of a kind which may be imagined, in a book dealing for the most part with evidential matter. So I have omitted the description here, and the brief reported utterance which followed. I think it fair, however, to quote the record so far as it refers to the youth's own feelings, because otherwise the picture would be incomplete and one-sided, and he might appear occupied only with comparatively frivolous concerns.⁵²

The inserted passage is both unbearably dispassionate about Raymond (he is merely ‘the youth’) while also deeply concerned to convey his character. But what is most striking is the way the page has been set, reproducing both the space of the description and its absence. Where the composite voice of Leonard, Feda and Raymond should be is Lodge’s own editorial intervention.

By offering his editorial presence instead of Raymond’s, the disembodied author who cannot write for himself, Lodge short-circuits the complicated chain that links Raymond – via Feda, Leonard, Mary Lodge, and Oliver Lodge – to the reader. For Raymond to cohere Lodge must remain in the margins; here, however, Lodge appears where Raymond should be, no longer the book’s editor but its author instead. This change of subject effects another, as the book is no longer about Raymond but what is repressed throughout: Lodge’s own unarticulated grief. In his anxiety over content, Lodge fills the empty form of this piece of paperwork with writing that points back to himself.

The Ether as Other

The book remains a fetishized object, perhaps more so now it is laced with nostalgia. In 2012 scientists at the University of Leicester printed the human genome in 130 volumes.⁵³ With its own system of sameness and difference, the genome constitutes a new media for producing the human. Just as *Raymond* was intended to establish the continuity of one particular etherial body, Raymond Lodge, so that it could establish a new understanding of humanity, so these volumes also witness an etherial body of sorts, a life already written that precedes the individual and will continue to define the life after they have gone. However, while the printed book, for Lodge, was the only object capable of encompassing a life, the bound volumes of the genome point to its insufficiency. In a comment on the trance of alphabetization, the way that knowledge is held to exist unmediated by printed letterforms, the volumes of the printed genome are legible but make little sense; furthermore, their sheer number exposes the book-sized quantities into which knowledge is usually consumed. The fact that the genome was printed at all suggests that the book still promises enclosure and remains a monument to wholeness. Yet these volumes can only present the book ironically.

In 1934 Lodge gave his last broadcast for the BBC. At 82, he suspected it would be his last and so wished his listeners goodbye.⁵⁴ A writer and broadcaster as well as an inventor of telegraphic systems, loudspeakers and microphones, Lodge was at the cutting edge of the media technologies that would define the twentieth century. Yet looking back he seems peculiarly old fashioned. Lodge's spirits are not even the ghosts of early twentieth-century modernity, but seem to belong to the world of Victorian table-tappers and Mr Sludge the Medium. Yet there is, nonetheless, something modern about Lodge's concern for individuation and embodiment. Our digital imaginary prefers immaterial bits flowing freely around the world than the wires, hardware and terms of access that sustain them; equally, the democratic potential of the web is hitched to the neoliberalism of the wisdom of the crowd. There is something compelling about Lodge's etheric imagination, not because it insists on

the existence of higher realms, but because it cannot but figure those higher realms on the basis of provisional material forms. To pass on messages and nourish the dead, the ether could not be left opposed to matter, on one side of a binary pair, but had to constitute a mediating technology in its own right. And whenever it did, it became necessary for Lodge to reimagine the unmodified ether still there but out of reach. Lodge wanted the ether to come first, an elementary something out of which matter could take shape, but the universe didn't play along and the ether, which promised to make spirit matter, proved shadowy, fugitive, and occult. No matter how much Lodge wanted the ether to serve as the basis for matter, his work reveals that it was material that took precedence. Not only does reading Lodge remind us that the apparently immaterial is always in some way embodied, but also that it is by doing things with embodied forms that we transcend them.

¹ Oliver Lodge, *Christopher: A Study in Human Personality* (London, New York, Toronto and Melbourne: Cassell and Company, 1918), 5.

² Oliver Lodge, *Past Years: An Autobiography by Sir Oliver Lodge* (London: Hodder and Staughton, 1931), 111.

³ That matter individuates is a founding principle of forensic science. See, for instance, Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2008), especially chapter 1, 25-71.

⁴ Oliver Lodge, *Continuity: The Presidential Address to the British Association Birmingham 1913* (London and Toronto: J.M. Dent and Sons, 1913), 15.

⁵ See also David Hendy, 'Oliver Lodge's Ether and the Birth of British Broadcasting', this volume.

⁶ Lodge, *Continuity*, 5.

⁷ Lodge, *Past Years*, 194-204. See also Peter Rowlands, *Oliver Lodge and the Liverpool Physical Society* (Liverpool: Liverpool University Press, 1990), 66-79; Bruce J. Hunt,

‘Experimenting on the Ether: Oliver J. Lodge and the Great Whirling Machine’, *Historical Studies in the Physical Sciences* 16 (1986): 111-134.

⁸ Lodge, *Continuity*, 54.

⁹ See, for instance Oliver Lodge, *The Substance of Faith* (London: Methuen and Co, 1907); Oliver Lodge, *Man and the Universe: A Study of the Influence of the Advance in Scientific Knowledge Upon Our Understanding of Christianity* (London: Methuen 1908); Oliver Lodge, *The Survival of Man: A Study in Unrecognised Human Faculty* (London: Methuen and Co, 1909).

¹⁰ ‘The British Association (From Our Correspondent)’, *Nature* 44 (1891): 371–87 (p. 385). For the 1891 Address and discursivity, see Erhard Schuettpelez and Ehler Voss, ‘Fragile Balance: Human Mediums and Technical Media in Oliver Lodge’s Presidential Address of 1891’, *Communication+1* 4 (2015): 1-15. See also Richard Noakes, ‘Glorifying Mechanism: Oliver Lodge and the Problems of Ether, Mind, and Matter’ in this volume.

¹¹ ‘The British Association (From Our Correspondent)’, 385.

¹² Lodge, *Continuity*, 90

¹³ Lodge, *Continuity*, 90-1.

¹⁴ Lodge’s hostility to materialism is set most fully in *Life and Matter* (London: Williams and Norgate, 1905). It can also be traced in his relationship to John Tyndall: see especially his remarks on Tyndall’s Belfast Lecture, *Past Years*, 138-9. For Lodge and materialism more broadly, see Noakes, ‘Glorifying Mechanism’.

¹⁵ Sir Oliver Lodge, ‘Ether, Matter, and the Soul’, *Hibbert Journal* 17 (1918-9): 252-260 (p. 256).

¹⁶ Oliver Lodge, *Modern Views of Electricity* (London: Macmillan and Co., 1889), x, xi.

¹⁷ For these models, see Bruce J. Hunt, *The Maxwellians* (Ithaca: Cornell University Press, 1991), 87-95; Shawn Michael Bullock, ‘The Pedagogical Implications of Maxwellian

Electromagnetic Models: A Case Study from Victorian-Era Physics', *Endeavour* 30 (2014): 1-9.

¹⁸ Lodge, *Modern Views*, 177-192, 193-216.

¹⁹ James Clerk Maxwell, 'On the Physical Lines of Force', *Philosophical Magazine* 21 (1861): 161-75, 281-91, 338-48 and 23 (1862): 12-24, 85-95; William Thomson, 'On Vortex Atoms', *Proceedings of the Royal Society of Edinburgh* 6 (1867): 94-105. For Lodge on the history of these models, see Sir Oliver Lodge, *An Introduction to Modern Views on Atomic Structure and Radiation* (London: Ernest Benn, 1924), 15.

²⁰ Lodge, *Modern Views*, 356. The lecture was from 1882. By the time he came to write *Modern Views*, Lodge was more convinced by Fitzgerald's sponge model, in which the ether was made by interlaced vortex filaments like a sponge. See xi. See also Hunt, *Maxwellians*, 96.

²¹ Oliver Lodge, *Modern Views of Electricity*, 3rd edition (1889; Macmillan and Co., 1907), vii, viii.

²² Lodge, *Modern Views of Electricity* (1907), 323.

²³ Sir Oliver Lodge, *Modern Views on Matter: the Romanes Lecture 1903* (Oxford: Clarendon, 1903), 10.

²⁴ *Modern Views on Matter*, 8.

²⁵ Lodge, *Modern Views of Electricity* (1907), 340-1. See also 'Introduction', 3.

²⁶ Lodge, *Modern Views of Electricity* (1889), 181.

²⁷ Lodge, *Modern Views of Electricity* (1907), 412.

²⁸ See 'British Association', *The Times*, 5 August 1907, 10. For a fuller account of Lodge's position, see 'Lord Kelvin's Philosophy', *Nature*: 78 (1908): 198-9.

²⁹ Lodge, 'Ether, Matter and the Soul', 256.

³⁰ Lodge, *Modern Views of Electricity* (1889), viii and (1907), vii.

³¹ Lodge, *Continuity*, 60.

³² Jacques Derrida, 'Structure, Sign and Play in the Discourse of the Human Sciences', *Writing and Difference*, trans. Alan Bass (1978; London: Routledge, 2002), 351-370, especially 365, 367.

³³ Oliver Lodge, *Atoms and Rays: An Introduction to Modern Views on Atomic Structure and Radiation* (London: Ernest Benn, 1924), 14-15.

³⁴ Lodge, *Continuity*, 22.

³⁵ Lodge, *Atoms and Rays*, 15.

³⁶ Lodge, *Continuity*, 60.

³⁷ Derrida, 'Structure, Sign and Play', 353.

³⁸ For Lodge, Balfour and the Souls see Lodge, *Past Years*, 220-4; W.P. Jolly, *Sir Oliver Lodge* (London: Constable, 1974), 115-9.

³⁹ For Lodge's relationship with Chamberlain see *Past Years*, 314-9; Jolly, *Sir Oliver Lodge*, 129-141, 158; Eric Ives, Diane Drummond, Leonard Schwarz, *The First Civic University: Birmingham 1880-1980* (Birmingham: University of Birmingham Press, 2000), chapters 6-10.

⁴⁰ Lodge, *Past Years*, 267-9. Lodge had gotten to know Ruskin in the 1880s and organised the testimonial for his 80th birthday in 1899. Lodge wrote the introduction to the 1907 edition of *Sesames and Lillies*. See John Ruskin, *Sesames and Lillies, The Two Paths, and the King of the Golden River* (London: J.M. Dent, 1907).

⁴¹ Oliver Lodge, *Public Service Versus Private Expenditure* (London: Fabian Society, 1905). Reprinted in Sidney Webb, Sidney Ball, G. Bernard Shaw, and Oliver Lodge, *Socialism and Individualism* (London: A.C. Fifield, 1908), 92-102.

⁴² Oliver Lodge, *The Link Between Matter and Matter* (London: British Science Guild, 1925), 15.

⁴³ F.W.H. Myers, 'The Subliminal Consciousness', *Proceedings of the Society for Psychical Research* 7 (1892): 298-354 (p. 301, 305, 306). See also Roger Luckhurst, *The Invention of Telepathy* (Oxford: Oxford University Press, 2002), 107-112.

⁴⁴ See Lodge, *Past Years*, 276-9; W.P. Jolly, *Sir Oliver Lodge*, 92-5.

⁴⁵ Lodge, 'Ether, Matter, and the Soul', 257.

⁴⁶ Lodge, *Raymond: Or, Life and Death* (London: Methuen and Co., 1916), 89.

⁴⁷ Lodge, *Past Years*, 285.

⁴⁸ See *Raymond Revised: A New and Abbreviated Edition of "Raymond Or Life and Death" with an Additional Chapter by Sir Oliver Lodge* (London: Methuen and Co., 1922), unpaginated.

⁴⁹ Lodge, *Raymond*, vii.

⁵⁰ Oliver Lodge, 'The Interstellar Ether', *Fortnightly Review* 53 (1893): 856-62 (p. 862). The essay was reprinted in *Modern Views of Electricity* (1907), 450-462.

⁵¹ Lodge often sent his wife Mary or one of his children as he was too well known a sitter.

⁵² Lodge, *Raymond*, 231.

⁵³ See, for instance, Eleanor Garnier, 'Leicester Scientists Print Human Genome in 130 Books', *BBC News*, 2012, <http://www.bbc.co.uk/news/uk-england-leicestershire-20520843>.

⁵⁴ Jolly, *Sir Oliver Lodge*, 237.