**Romantic Electricity: Fields and Currents in recent research**

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**Abstract**

Romantic writings about electricity have proved a fruitful topic for recent scholars of the period, and the study of electrical discourse is a fast-growing interdisciplinary field. This essay offers a survey of the best work on Romantic electricity, focusing on two key areas: the ways in which electricity appears as an image of revolutionary activity, and the use of electric imagery in Romantic poetry as a figure for creativity and vitality. In assessing such recent work, this essay argues for the importance of reading Romantic electrical texts within the context of the material experimental cultures of period. Such historical attention reveals that electrical language is amazingly ubiquitous in the Romantic period, and is used in a variety of ways in literary and political texts. Awareness of this rich body of electrical texts offers scholars opportunities to move beyond assigning electricity a particular political valence, and to investigate the operation of electrical language in the work of a wide range of authors.

**Keywords**

electricity, electrical, politics, revolution, poetry, vitality, communication, Romantic

**Main text.**

**I.**

This essay is concerned with the political and literary life of electricity in the Romantic period. I begin with an animating example. On 15 November 1792, S. W. Fores published a satirical print by Isaac Cruikshank entitled ‘The Friends of the People’ (Figure 1). Cruikshank took his title from the Whig Society for the Friends of the People, established in June 1792, in response to the polarised response of the Whig party to revolution in France and reform in Britain. The Friends of the People objected to being caught between the reactionary rhetoric of their Whig colleague Edmund Burke and the populist voices of reformers like Thomas Paine. Their genteel members may have experienced shock, therefore, on seeing Cruikshank’s ‘Friends of the People’, which represents Paine himself face to face with Joseph Priestley, dissenting minister, experimenter and reformist firebrand, apparently concocting a campaign of treasonous violence. As Dorothy George notes, Paine and Priestley are surrounded by weapons, volumes with titles such as ‘Select Meetings, Massacres, Counter Revolutions, Revolutions, Plots, Treasons, Conspiracys’, and prints on the wall behind them, which are titled ‘A La Lantern’, ‘Shooting the King of Sweeden’ [sic], ‘Charles the First’, ‘Watt Tyler’, and simply ‘Guillotin’. In case any viewer were to mistake the intentions of the pair, Cruikshank seats a large black devil between them (George, 1870-1954).

Cruikshank’s print has a partner, titled ‘Sedition, Levelling and Plundering; or the Pretended Friends of the People in Council’, in which the same image is accompanied by verse adapted from God Save the King, which excoriates Paine and Priestley’s ‘creed’ of ‘sedition’, and urges loyalty. The two prints have attracted sustained critical attention, focused mainly on the way in which Cruikshank unites the twin threats of popular politics and dissenting religion (Haywood, 2013, 110; Clay, 2008, 597-98; Davis, 2015). But as Marjorie Gapp and Richard Clay both note, the weapons at the disposal of Priestley, in particular, are not merely daggers and gunpowder (which feature prominently), but also tools which make the connection between ‘inflammatory words and inflammable materials’ (Gapp, 2005, 20).[[1]](#footnote-1) Gapp identifies references to Priestley’s chemical research in Cruikshank’s depiction of ‘Brimstone’ and ‘phosphorous’ among the weapons available to the pair. And in this essay, I would like to focus on a further, and yet more mysterious weapon at Priestley’s disposal, namely the blunderbuss inscribed ‘Royal Electric Fluid’.

 Priestley was well known for his interest in electrical science, having published his *History and Present State of Electricity* in 1768. He also, notoriously, made the connection between scientific investigation and the fall of *anciens régimes*, noting in 1774 that ‘the English hierarchy (if there be anything unsound in its constitution) has equal reason to tremble even at an air pump, or an electrical machine’ (Priestley, 1774, xiv).[[2]](#footnote-2) But the labeling of Priestley’s weapon in this image is puzzling: what is ‘Royal Electric Fluid’ and what makes this blunderbuss the communicator of it? It is customary during the eighteenth century to account for electrical phenomena using a theory of electricity as a superfine fluid, as Cruikshank does here (Fairclough, 2017, 17-18). But his use of the term ‘Royal’ is very unusual. In connecting electricity with monarchy in an image full of representations of treasonous violence, Cruikshank seems to suggest that ‘Royal Electric Fluid’ forms part of Priestley and Paine’s arsenal against the British political hierarchy. There are other more explicit suggestions, too, that electricity might be used as an offensive weapon. At the edges of the image, to the left and right of Priestley and Paine, are piles of volumes with titles such as ‘Villany Triumphant [sic], Rebellion, Downfall of Royalty’. The stack of books behind Priestley reads ‘Fire and Murder defended, Deep designs, Assassination, Brutus, Cataline, Electrical Batteries so contrivd to Distroy [sic] any Assembly or Member at Pleasure’ (George, 1870-1954).

Though it is a small detail in Cruikshank’s complex image, I want to pause to consider the implications of this vision of electrical apparatus as anti-monarchical weapon, capable of destroying both individuals and collectives. Cruikshank’s intervention in contemporary representations of electrical experimentation indicates the complex and interesting degree to which discourses of electricity are politicized in the 1790s. I want to use it, therefore, as a starting point, to investigate representations of electrical science at the end of the eighteenth century, and the connections between the figurative uses of electrical language in political and literary writings and the material state of electrical experimentation at this moment. As many commentators intuit, it is not always clear whether the spectacular electrical effects observed in experimental practice and appropriated in other forms of writing are material observable events, or whether describing events as electrical is merely convenient figurative shorthand for phenomena for which there is no other available language. Electrical language thus assumes a status somewhere between the literal and the figurative. Electrical science and electrical metaphors and figures have received a good deal of attention from historians and literary critics in the last twenty years, and I will assess the characteristics of this fascinating and challenging interdisciplinary field, thinking about how we might best recover the intriguingly incoherent status of electricity in the Romantic period, and its related textual lives.

 As I will discuss, scholars have tended to analyse the uses of electrical language in the late eighteenth century in two related and occasionally overlapping ways. Electricity is, as critics and historians have shown, used by writers of this period as an image for radical, even revolutionary communication; and it is also a common image for literary creativity, especially in the work of the Romantic poets. In my own work, I have drawn gratefully on both these approaches, but both in this essay and in my monograph *Literature, Electricity and Politics 1740-1840: Electrick Communication Every Where*, my approach to analysing such figurative uses of electrical language is to consider literary and political representations of electricity alongside contemporary accounts of electrical science. Careful attention to the state of experimental culture and electrical practices at this period reveals that representations and figurative appropriations of electricity are only rarely assigned a particular and stable ideological function. Much more common is the admission by experimenters, political writers and literary authors alike, that the uncertain status of electricity at this moment makes electrical images a fundamentally yet productively uncertain and slippery form of expression, as Cruikshank’s print suggests. Here I offer a brief account of the status of electrical experimentation in the late eighteenth century, before returning to Cruikshank’s image and other contemporary appropriations of electrical science, and recent critical responses.

 Electrical science was in a basic state throughout the eighteenth century. Experimenters used electrical machines that produced static electricity by rubbing a glass globe or tube against leather or a cushion, but there was until 1800 no means of producing a continuous electrical current.[[3]](#footnote-3) In the 1740s, the invention of the Leyden jar or electrical condenser enabled experimenters to store an electrical charge and discharge it all at once. This means of producing a more powerful shock enabled a new series of experiments and a new wave of interest and activity in electrical experimentation. In 1810, Humphry Davy, looking back over the achievements of the previous century, noted of the Leyden jar:

No single philosophical discovery, ever excited so much popular and scientific attention . . . The apparatus soon became an object of public exhibition; and in the same year in which it was discovered, a number of itinerant experimenters procured a livelihood in different parts of Europe, by travelling from place to place, and showing the experiment (Davy, 1810, 263).

Though Davy celebrates these effects, he also signals a note of caution or regret about the way in which they made electrical science accessible to ‘itinerant experimenters’ and their popular audiences. Yet this popular quality is a vitally important aspect of electrical science throughout the period. Many historians have noted that spectacular displays of electrical phenomena brought electricity to the attention of large and socially mixed audiences; as the *Gentleman’s Magazine* put it in 1745: ‘Electricity became the subject all in vogue’ (‘An historical account’, 1745, 193).[[4]](#footnote-4) But as Davy’s later response suggests, elite experimenters working under the aegis of institutions such as the Royal Society tended to express distaste at the popularisation of electrical science, and attempted to distance their natural philosophical work from the activities of mere experimenters. Royal Society members William Watson and Benjamin Wilson devoted sustained attention to the study of electricity in the 1740s, and Benjamin Franklin made important experimental breakthroughs in the 1750s, when he theorised the operation of the Leyden jar, and proved that electricity and lightning were the same phenomenon (Watson, 1746; Wilson, 1746; Delbourgo, 2008). But despite this progress, it is important to note that elite researchers and itinerant demonstrators alike remained mostly mystified by the actual operation of electricity. As George Adams noted in 1787, less than a decade before Cruikshank’s image, ‘as electricity is in its infancy, when considered as a science, it’s [sic] definitions and axioms cannot be stated with geometric accuracy’ (Adams, 1787, 11). Throughout the century, the causes of electrical phenomena remained largely opaque, though experimenters generally agreed that its effects were produced by a superfine ‘imponderable’ fluid (Heilbron, 1993). This opacity, I argue, has an important effect on the way in which electrical experimenters describe their work, and on the appropriations of electrical language in other discourses. The difficulty of defining the causes of electrical communication brings together commentators across a range of diverse fields. They are united by a realisation of the difficulty of assigning electricity a precise meaning, and thus intuit the importance of employing speculative, even imaginative methods to explain its effects.

 Electricity’s resistance to empirical investigation often demands recourse to figurative language in order to account for its operation. Natural philosophers had long used analogy to explain scientific phenomena, but the metaphoricity of writings about electricity, I suggest, was more slippery and less rule-bound than the philosophical analogies recommended by figures like Francis Bacon (Bacon, 2000, 180). The figurative basis of much writing about electricity in turn has interesting effects on the use of electrical metaphors in other discourses. Indeed, many electrical experimenters noted the extent to which electricity itself often seemed to occupy an odd hinterland between the literal and the metaphorical. In 1751 the American experimenter Ebenezer Kinnersley promised his audience ‘Spirits kindled by fire darting from a lady’ s eyes (without a metaphor)’. Kinnersley echoes the *Gentleman’s Magazine*’ s declaration in 1745 that ‘ladies were sensible of this new privilege of kindling fires without any poetical figure or hyperbole’ (‘An historical account’, 1745, 194). In both cases, electricity appears to be an almost material manifestation of the attraction of the female gaze. The showman physician James Graham built a whole business of treatments for infertility and sexual disfunction on such connections between electricity and eroticism in the 1780s, as I discuss in *Literature, Electricity and Politics 1740-1840* (83-103). More broadly, these examples point to the way in which electricity seems to be conceived as a quasi-figurative phenomenon, which requires the use of figurative language to account for its operations. Electricity is not quite metaphorical according to Kinnersley’s account, but neither is it tangible and material. This status proves a problem for commentators who wish to assign electricity a stable meaning, but enabling for writers who make use of its proliferative, associative qualities.

 We can perhaps begin to see why Isaac Cruikshank presents electricity as an anti-monarchical weapon at the disposal of Joseph Priestley. Cruikshank’s depiction of the books which instruct how to make ‘Electrical Batteries so contrivd to Distroy [sic] any Assembly or Member at Pleasure’ seems to draw on electrical experiments in which a shock from a Leyden jar is transmitted through a group, as the experimenter Benjamin Martin describes in 1746:

The whole company join hand, or communicate with each other by wires; then the operator, or person who stands first, at one extremity of the line, hangs the electrized phial on the barrel, when the person at the other extremity draws off the spark from the barrel; and at that instant all the company receive the shock which they feel to their elbows and both their arms (Martin, 1746, 37).

However, Cruikshank transforms this communicative game to a more sinister kind of transmission in which the electric shock is powerful enough to ‘distroy’ an individual or even an assembly. In this vision, Cruikshank’s ‘electrical batteries’ seem closer in nature to lightning rods than the gentler Leyden jars which enable only a mild shock. By gesturing to the power of lightning, Cuikshank evokes what is by the end of the century a common image. Benjamin Franklin’s work on lightning rods, combined with his leadership in the American revolution, led him to be celebrated in both France and Britain as a Promethean figure, who ‘snatched lightning from the sky and the sceptre from tyrants’ (Fulford, 2004, 182). In the long narrative poem *The Economy of Vegetation*, published a year before Cruikshank’s print, Priestley’s friend Erasmus Darwin created a vision in which Franklin’s lightning rods become the conductors of a patriotic vitalising flame among revolutionists. In Canto two, Darwin notes:

Immortal Franklin watch’d the callow crew,

And stabbed the struggling vampires, ere they flew.

The patriot-flame with quick contagion ran,

Hill lighted hill, and man electrified man;

Her heroes slain awhile COLUMBIA mourned,

And crown’d with laurels LIBERTY return’d (Darwin, 1806, 105).

In Cruikshank’s image the salutary, vitalizing flame imagined by Darwin becomes a lethal electric force, but it is worth noting the easy slippage between these two visions. Cruikshank’s other reference to electricity in the image, his blunderbluss of ‘Royal Electric Fluid’ perhaps also takes on a more complex set of resonances in the context of contemporary electrical science, in particular Priestley’s own electrical researches.

 In July 1791 Priestley’s house in Birmingham was destroyed by a loyalist ‘Church and King’ mob. The riots were said to be triggered by a dinner celebrating the anniversary of the French revolution, but the unrest seems prompted at least in part by older prejudices against dissenting, non-conformist protestant communities in the city.[[5]](#footnote-5) The rioters singled out dissenting homes and businesses, including that of Priestley. Priestley’s scientific researches as well as his religious practice seem to have been a target of the rioters, who destroyed his laboratory. But in doing so, they also attempted to use Priestley’s electrical equipment as instruments of violence. As Priestley noted in his account of the riot, ‘I afterwards learned that much pains was taken . . . to get fire from my large electrical machine, which stood in the library’ (Priestley, 1792, 30). Despite, or perhaps because of, Priestley’s reputation for electrical research, *The Times* newspaper, in its reporting of the riot, appropriates electrical language to describe and praise the actions of Priestley’s antagonists. *The Times* reports that, ‘a kind of electrical patriotism animated [the rioters] to instant vengeance’ on prominent dissenters (*The Times,* 1791).[[6]](#footnote-6) In this report, as in Darwin’s poem, electricity is the catalyst of collective action, but in anticipation of Cruikshank’s vision of electrical weaponry, for *The Times*, electricity activates reaction and violence. Its electrical image suggests the alarmingly indiscriminate effects of both collective action and electrical communication, as the latter resists any clear ideological function. In the light of the reporting of the Birmingham riots, the significance of the ‘Royal Electric Fluid’ weapon in Cruikshank’s image appears less stable. Though this electric fluid seems to be at the disposal of Priestley and Paine, it is also perhaps a ‘patriotic’ force for the use of royalty and its associated political powers.

 I have offered Cruikshank’s ‘Friends of the People’ as an example of the way in which even apparently clear political deployment of electrical imagery retains a capacity to upset a straightforward reading of its ideological implications. I suggest that such instability is a crucial feature of the political use of electrical language throughout the 1790s. In investigating such electrical discourse, my work forms part of a sizable field of studies by literary scholars and historians of both political culture and science, to which I owe a great deal. Political and literary texts produced in the 1790s and into the early nineteenth century certainly offer commentators a great deal of fascinating material, with certain writers prompting repeated investigation by recent scholars. The work of John Thelwall, Joseph Priestley, Anna Laetitia Barbauld, Erasmus Darwin, Edmund Burke, John Keats, Percy Bysshe and Mary Shelley has been subject to repeated analysis, as I show below. What I try to caution against in my work, however, is the formation of any canon of electrical authors; and in *Literature, Electricity and Politics 1740-1840* I set canonical writers alongside commentators who are much less well-known. As the example of Cruikshank suggests, fascinating and complex use of electrical imagery is a feature of some print caricature, as well as ephemeral forms of newspaper writing, political pamphlets and periodical miscellanies. Attention to the wide range of uses of electrical language can also help critics and historians to move beyond the two dominant interpretations of the significance of electrical language, namely that writers employ such language either as a symbol of radical political energies, or as an image of literary creative inspiration. In this next section I investigate important recent studies of electrical language in literary and political writings, but caution against the closing down of the interpretive possibilities that such language enables.

**II.**

Electrical imagery was certainly interpreted by both reformers and conservatives in the 1790s as carrying a radical charge. Darwin’s *The Economy of Vegetation* received praise and blame for its presentation of electrical communication as a vitalizing political force, and the radical journalist Daniel Isaac Easton anthologised a further passage from Canto two of the poem in his radical miscellany *Politics for the People, or a salmagundy for swine* (1794). In this passage Darwin removes this electrical revolutionary energy from America to France:

Long had the Giant-form on GALLIA’S plains

Inglorious slept, unconscious of his chains . . .

—Touch’d by the patriot-flame, he rent amazed

The flimsy bonds, and round and round him gazed (Darwin, 1806, 106; Eaton, 1794).

Eaton’s appropriation of this passage suggests that he interprets Darwin’s celebration of the apparently electrical ‘patriot-flame’ as a critique of tyranny and even a call to arms. Recent commentators have tended to follow this line when analyzing the use of electrical imagery in political writings of this period, and Paul Elliott has even demonstrated how a politicized backlash by conservatives against the radical implications of electrical communication had a materially damaging effect on the careers of figures like Darwin and on the development of electrical science more broadly (Elliott, 2008).[[7]](#footnote-7) Electrical language pervades discussions of revolution in France and reform in Britain, and is often associated with radical activity; but as Cruikshank’s representation of Priestley suggests, it was not a straightforward means of celebrating or condemning efforts towards revolution in France and reform in Britain.

 Recent critics have at times aligned electricity with revolutionary or radical expression. Jane Goodall declares in her essay ‘Electrical Romanticism’ that ‘it was to the science of electricity… that the symbolism of revolution was most fiercely attached’, and Tim Fulford in his detailed and thoughtful survey of the uses of electrical imagery in writings on the French revolution ‘Man electrified man: Romantic revolution and the legacy of Benjamin Franklin’, suggests that ‘electricity came, in the 1790s, to be a symbol of revolution’ (Goodall, 2008, 177; Fulford, 2004, 179). As Fulford’s essay suggests, the influence and reputation of Benjamin Franklin is a crucial element of such readings of electrical language. Several other critics and historians note the association between electrical science and politically radical figures such as Franklin and Priestley in the late eighteenth century, and build on this association to assert the revolutionary valence of electrical science. Noel Jackson in *Science and Sensation in Romantic Poetry* notes that the use of electrical language in discussions of revolution ‘was more than a merely accidental metaphor in an era in which the political careers of natural philosophers such as Benjamin Franklin and Joseph Priestley were helping to fortify a popular association of electrical science (and natural philosophy generally) with radical politics’ (Jackson, 2008, 47).[[8]](#footnote-8) As we have seen in the example of Darwin, the image of Franklin as innovator was especially fruitful for celebrations of electrical communication. But I suggest that even Franklin’s influence was not enough to stabilise electrical imagery to the extent that it could be considered a ‘symbol’, whether of revolution or anything else. The varied signification of electrical language proved a problem for those who would try to stabilise its meaning.

 This instability is clear in accounts of electricity from the 1790s that attempt to make it an image of enlightenment and progress. Despite the fact that, as James Delbourgo notes, ‘American revolutionaries turned Franklinist electricity into an icon of enlightenment and the power of reason to subject nature to law’, in the 1790s, such association between electricity and reason proves more fraught (Delbourgo, 2006, 44). As Fulford has discussed, Samuel Taylor Coleridge in his 1795 political lecture *The Plot Discover’d* celebrates the reformist activity killed off by the government’s Seditious Meetings and Treasonable Practices Bill: ‘By the operation of Lord Grenville’s Bill, the press is made useless. Every town is insulated: the vast conductors are destroyed by which the electric fluid of truth was conveyed from man to man, and nation to nation’ (Coleridge, 1995, 45). Electric communication is diffusive here, as in Darwin’s account, but medium and content seem combined in Coleridge’s nostalgic vision, producing a pure ‘truth’ which is now lost. Coleridge’s friend Robert Southey uses the same image in his drama *Wat Tyler*, written in 1794 but unpublished until 1817. In the final act, the rebel preacher John Ball makes his last speech before being executed for treason. Ball laments the injustices of inequality, and declares:

And there will be a time when this great truth

Shall be confess’d—be felt by all mankind.

The electric truth shall run from man to man,

And the blood-cemented pyramid of greatness

Shall fall before the flash! (Southey, 1989, 66).

Southey does not worry about using an image of contemporary science in his historic drama. His account of radical communication echoes Darwin’s praise of Franklin, and the anachronism even serves Southey’s aim to emphasise parallels between the Peasants’ Revolt and conditions in contemporary Britain. Like Coleridge, Southey makes ‘electric truth’ a phenomenon that unites medium and content. For Fulford, ‘electricity puts “truth” into action’ for Southey; it is a means of communication, an intuition of enlightenment, and a catalyst of political action (Fulford, 2004, 181). But the multiple valence of Southey’s image complicates the work of his text. Ball ends his speech by stressing electricity’s capacity to catalyse not only ‘truth’, but also violence. Southey’s image of ‘electrical truth’ in *Wat Tyler* cannot stand simply as an emblem of enlightened political progress; it is shadowed by its association with wild, even violent physical communication.

In his recent account of the activities of reformist societies in the 1790s, Jon Mee also notes the importance of electrical communication as an image of enlightenment for certain reformist leaders. Robert Merry, for instance, ‘retained a confidence in the “electric” power of print to spread enlightenment on a global scale’ (Mee, 2016, 75). But as Mee also notes, Merry’s famous celebration in his *Ode for the Fourteenth of July* (1791), of an electric energy that passes ‘From hand to hand, from soul to soul’, seems to exceed the control of reformers. ‘Who shall the energy control’, Merry demands, in what might be a statement or a question, and his verses have an important textual afterlife in reformist newspapers and periodicals (Mee, 2016, 50, 117-18; Merry, 2002, 250). Like Coleridge and Southey, then, Merry’s electrical enlightenment seems to shade into a more disruptive set of associations. Koen Vermeir notes that in the nineteenth century ‘electricity can also be a disturbing power that can never be subsumed under strict laws and comes to stand for disruption and disunity. Similarly, electricity can be a conservative or a radical political force; it can project into the future utopias as well as dystopias’ (Vermeir, 2015, 148).[[9]](#footnote-9) Commentators at the end of the eighteenth century seems to intuit this disruptiveness even as they celebrate the enlightening effects of electrical communication.

 Many recent commentators have noted that, in writings about the French Revolution, the most common use of electrical language makes it an image of powerful and instantaneous communication. As Mee puts it: ‘This speeding up of communication was a crucial part of the context that recommended the electrical metaphor of political sympathy’s rapid movement from breast to breast’ (Mee, 2016, 42). Indeed, as I discuss in *Literature, Electricity and Politics 1740-1840*, and briefly in the conclusion to this essay, the metaphor was employed by both conservative and reformist writers to account for new forms of political communication in the 1790s (Fairclough, 2017, 132-63). Ian Hampsher-Monk notes that in accounts of reformist organisation and agitation in Britain ‘the medium, not the content… the very fact and facility of such ‘electric’ (a favoured neologism) communication evince[ed] and compris[ed] the political mobilization of hitherto unpoliticized people from different parts of the country’ (Hampsher-Monk, 2007, 148). As Jackson, Yasmin Solomonescu and Catherine Packham among others have shown, this form of indiscriminate ‘electrick communication every where’ proved extremely worrying for conservative commentators such as Edmund Burke, whose response I discuss in more detail below, but enabling for reformers like John Thelwall, for whom, as Solomonescu notes, electricity ‘offers a powerful model and metaphor for the communication between bodies and embodied minds that he seeks to achieve with language.’ (Solomonescu, 2014, 9, 26).[[10]](#footnote-10) As Solomonescu suggests, Thelwall’s connection of electrical phenomena with the operations of the human body proved a crucial element of his argument that such forms of reformist communication were natural, even salutary.

It is important, however, to attend in these accounts to the various means of communication with which electricity is associated. At times in reformist writings such ‘electrick communication’ refers to the abstract yet politically ameliorative effects of communication through the press, though as we have seen, any claims to enlightenment prove fraught. But in Thelwall’s work in particular, electric communication is an embodied phenomenon, the catalyst for the response of an audience to an orator, or the spread of feeling through a crowd. Thelwall emphasises the effects of his oratory in a letter to his wife of October 1795, declaring of his lectures: ‘Every sentence darted from breast to breast with electric contagion, and the very aristocrats . . . were frequently compelled by irresistible impulse to join in the acclamations’ (Thelwall, 1837, 367). Thelwall’s medical training allows him here and elsewhere to present such communication as a health-giving process (Fairclough, 2013, 111-16). But such emphasis on the instinctive nervous responses of the body also demonstrates the extent to which conscious reason is bypassed in such electric communication, strengthening the suggestion that it is an uncontrolled and thus threatening phenomenon. This aspect of electric communication prompted mixed responses from both reformists and conservatives in Britain, complicating the suggestion that such electricity was a universal symbol of revolutionary activity. Reformers such as Mary Wollstonecraft and William Godwin expressed concern at the indiscriminate operation of ‘electrical sympathy’, whereas some conservative reformers seemed to welcome the potential opportunities such electrical communication offered, as I discuss in my conclusion (Wollstonecraft, 1989, 121).

**III.**

The second major critical investigation of electrical language in the Romantic period has focused on its appropriation as a literary phenomenon, equating roughly to inspiration or poetic vitality. This work has tended to focus on poetic writing, in particular the work of canonical Romantic poets. As Paul Gilmore notes, this focus on particular poets is apparently driven by the characteristics of their use of electrical language: ‘The contested nature of electricity, along with its powerful effects, seemed to provide the perfect figure for romantic [sic] writers interested in reconceiving the imagination, aesthetic effects, human emotions and their relationship to some divine order’ (Gilmore, 2015, 158). But while such investigations can tell us much about the work of these writers, we should again be alert to the problems of canonical focus. In my own research I attempt to investigate canonical figures alongside less-known writers, for instance analyzing the connections between Mary Shelley’s work in *Frankenstein* and the writings of Richard Carlile, radical publisher and agitator in *Literature, Electricity and Politics 1740-1840* (192-214). I also suggest there that the poetic work of earlier authors, for instance Thelwall and Darwin, might be equally deserving of such analysis. However, critical focus on poets’ use of electric language as a self-conscious means of discussing the workings of poetry itself certainly reveals much about Romantic period understandings of both electricity and poetry.

As in the political writings of the 1790s, such manifestations of electrical language pose the question of whether writers use electricity as a metaphor for other forms of connection and communication, or whether they understand electrical communication as a material phenomenon. For Richard Sha, electricity as understood at this period seems to become a quasi-physical medium of affective communication: ‘Because the language of affect saturates electricity, affect becomes a contagious transactional exchange between subjects. If electricity took from affect a kind of sensuous presence that had the self-evidence of a shock, affect gained from electricity the rational language of attractive and repulsive forces’ (Sha, 2012, 145). In poetry in particular, electricity can be used to evoke, indeed to stimulate, affective connections between author and reader, as Jason Rudy has investigated, arguing that ‘electricity serves as a touchstone for nineteenth-century poets reflecting on the complex interactions of thought, emotion and physiological experience’ (Rudy, 2009, 4, 11). Rudy in his study *Electric Meters: Victorian physiological poetics* and Gilmore in *Aesthetic Materialism: Electricity and American Romanticism* are interested in later nineteenth-century developments in electrical research and electrical language, both in Britain and America, but their insights into the poetic practice of the British Romantic poets are particularly useful for thinking about the poetic functions of electricity in the earlier part of the century. In this section, I assess recent critical discussions of the use of electrical language in Romantic poetic texts. Mary Shelley’s appropriation of contemporary electrical science in *Frankenstein* is another rich and much-discussed literary manifestation of electrical discourse of this period, but my focus on poetry means that it is unfortunately beyond the scope of this essay.

As Rudy and other commentators have noted, poetic uses of electrical language build on developments in electrical science at the end of the eighteenth century and into the nineteenth, in which electricity is associated with the nervous system, and claimed as the superfine medium which enables nervous communication and perhaps even life itself. Alexander Monro II was among many, including the physician Luigi Galvani, who made the case for nervous electricity, declaring in 1783:

Most authors have supposed that the nerves are tubes or ducts conveying a fluid secreted in the brain, cerebellum, and spinal marrow. But, of late years, several ingenious physiologists have contended, that a secreted fluid was too inert for serving the offices performed by the nerves, and, therefore, supposed that they conducted a fluid the same as, or similar to, the electric fluid (Monro, 1783, 74).[[11]](#footnote-11)

Such suggestions intensify in the early nineteenth century. Alan Richardson has argued persuasively that the ‘Romantic psychologies’ of medical practitioners and researchers like Erasmus Darwin, Franz Joseph Gall, Pierre-Jean-George Cabanis and Charles Bell were united in their ‘cautious fascination with the role of electricity in neural transmission’ (Richardson, 2005, 6). But alongside what Goodall terms electricity’s ‘exhilarating potentialities as a life science’, and despite rapid advances in understandings of its chemical and physiological operations, the workings of electricity remained deeply opaque at this moment (Goodall, 2008, 118). Even Davy, who not only revolutionised the field of electrochemistry but was also fascinated by electricity’s physiological function, was forced to admit the limits of his knowledge. He declares in a letter of 1804: ‘We are masters of the earth, but perhaps we are the slaves of some great and unknown beings… We suppose that we are acquainted with matter, and with all its elements, and yet we cannot even guess at the cause of electricity’ (Davy, 1804). But as in the political discourse of the 1790s, the indeterminacy of electricity, in particular its physiological effects, proves a great opportunity for poetic writers at this moment. Despite advances in electrical research, electricity retains an ineffable quality which means that its quasi-metaphorical status is sustained, as critics have noted in the works of John Keats, George Gordon Lord Byron, and Percy Bysshe Shelly in particular.

 Richardson and Sha have both investigated Keats’s use of electrical imagery in the light of his medical training, especially his instruction in the nervous system by Anthony Ashley Cooper. Both analyse the passage from *The Fall of Hyperion*, in which the Goddess Moneta declares to the speaker:

the scenes

Still swooning vivid through my globed brain

With an electral changing misery

Thou shalt with those dull mortal eyes behold (Keats, 2006, 441).

For Richardson, this image ‘is resonant with its original context in Romantic brain science’ (Richardson, 2005, 124). Sha expands this claim to explore the way in which this electrical image ‘shuttles back and forth between the divine and mortal, between futurity and the present “still” moment, and between a curse and a wonder’, and even enables Keats to expand and unsettle the qualities of physical matter in his verse: ‘“Electral” thus names the workings of the mind as brain, without quite having to specify the form of materiality because electricity was not measurable… a kind of (ironic) materiality without measurable matter’ (Sha, 2014, 240-41). This examination of electrical images in Keats’s work has thus allowed critics to bring together the physiological concerns of his writing with his interest in intangible energies. The ‘electral’ visions of Moneta’s brain seem an actual nervous phenomenon, rather than a metaphorical use of electrical language, but this distinction remains uncertain, and Keats exploits such uncertainty.

 Byron has less interest in physiology than Keats, but nonetheless uses imagery of electricity as a bodily phenomenon at several moments in his work. Byron does not offer a clear distinction between literal and metaphorical appropriations of electricity; in fact, he exploits the ambiguity of electrical language. As Gilmore notes, electricity works for Byron ‘both as a metaphor for the enigmatic, rapid workings of memory and as a direct allusion to the possibility that life and thought were, in fact, electrical phenomena’ (Gilmore, 2009, 71). Gilmore cites these lines from Canto IV of *Childe Harold* which examine how a smell or sound can evoke a vivid memory:

 Striking the electric chain wherewith we are darkly bound;

And how and why we know not, nor can trace

Home to its cloud this lightning of the mind,

But feel the shock renew'd, nor can efface

The blight and blackening which it leaves behind (Byron, 2008, 155).

Here Byron suggests that while the ‘electric chain’ of association might merely be a figure for memory, such ‘lightning of the mind’ is also an integral aspect of the operations of the brain and nervous system. Likewise, the pain of an electric shock is distinct from the pain of a memory, but its association with neural functioning means that it is more than a purely figurative flourish. As Gilmore notes, too, Byron exploits the uncertainty about electricity’s operation, pairing that with the obscurity of the operations of human hearts and minds: ‘These lines epitomize the role electric imagery plays throughout Byron’s oeuvre as indicating a kind of unconscious, yet sensuous force, a way to account for a powerful chain of mental associations to which we do not have full access’ (Gilmore, 2009,71).

Rudy, who discusses the same passage from *Childe Harold*, makes the important claim that though Byron is describing an individual and intensely personal event, he also gestures to the social, and even political significance of such electric communication: ‘The chain is simultaneously a link between each individual and sensory experience, and a link among all human individuals’ (Rudy, 2009*,* 25). However, careful attention to the political uses of electrical discourse in the 1790s, as well as to contemporary electrical research, reminds us that though electricity can be a medium of cohesion, it is at least as often conceived as a force of transmission, which even threatens to denature such cohesive bonds. Gilmore points to the ambivalence of Byron’s use of electrical imagery, not only in *Childe Harold* but in *Mazeppa* and ‘The Prophecy of Dante’, when he notes:

For Byron, the human imagination, as figured at times in electric terms, becomes the source of intellectual and political freedom, the medium where the mental and the physical meet, but that electricity can also indicate the indeterminate, at times destructive nature of the intense emotional and physical feelings to which the artist, the political revolutionary, are particularly receptive (Gilmore, 2009, 71-72).

As Gilmore suggests, electricity sometimes stands in Byron as a figure for the creative imagination, but its association with socially and even politically embodied modes of communication means that it is never a secure or stable image for creativity.

Keats articulates a similar ambivalence about the social function of electrical language in a consideration of the electric properties of his fellow city-dwellers in a letter to George and Georgiana Keats on 19 March 1819:

I go amongst the buildings of a city and I see a Man hurrying along - to what? the Creature has a purpose and his eyes are bright with it. But then, as Wordsworth says, ‘we have all one human heart’ - there is an ellectric fire in human nature tending to purify - so that among these human creatures there is continually some birth of new heroism (Keats, 1975, 229).

Keats’s quotation from ‘The Old Cumberland Beggar’ recalls Wordsworth’s reminder that all are in need of charity at some time, and that all should equally offer it: the villagers of the poem ‘have been kind to such /As needed kindness, for this single cause, /That we have all of us one human heart’ (Wordsworth, 2000, 53). These lines remind Keats to see his common cause with the passer-by, and his reference to ‘ellectric fire’ seems to recall this plea for fellow feeling, even evoking the ethical behaviours which produce the social cement of sympathy. But as Keats’s other use of electric language shows, this appeal to the cohesive properties of electricity seems in tension with ideas of the proliferation of electrical communication, and with Keats’s sense that electricity produces instinctive physiological communication, or even vitality, life itself.

The ways in which Keats and Byron deploy electrical imagery to signify in turn physiological processes, creative practice, emotional states, ethical behaviour, and social and political communication and collectivity is matched and even surpassed in its detail and sophistication by Percy Bysshe Shelley. Shelley had been fascinated by electrical science since childhood, and his reading and writings display detailed knowledge of electrical theory and practice in chemistry, medicine, meteorology and physiology (Hogg, 1906, 8-9; Ruston, 2007). To a greater extent than Byron and Keats, Shelley uses the language of electricity to account for the properties of writing, especially poetic writing, itself. As Jackson notes, Shelley draws on a physiological idea, the notion of electricity as a vital spirit, and compares ‘the animating spirit of poetry to the workings of electricity’ (Jackson, 2008, 58). As Rudy stresses, Shelley’s use of electric language suggests that like Byron he finds something enabling in the way that electrical phenomena resist quantification or even classification, as poetry too resists such taxonomy. ‘Electricity has long been a privileged figure for those describing the ineffable qualities that make poetry *poetic*’ (Rudy, 2009, 4).

Yet to a greater extent than his contemporaries, Shelley articulates the political significance of electrical vitality and electrical communication, and seems to see no absolute distinction between political and poetic expression. In his most celebrated use of an electrical figure Shelley declares in *A Philosophical View of Reform* (1819):

It is impossible to read the productions of our most celebrated writers… without being startled by the electric life which there is in their words. They measure the circumference or sound the depths of human nature with a comprehensive and all-penetrating spirit at which they are themselves perhaps most sincerely astonished, for it is less their own spirit than the spirit of their age (Shelley, 2016, 641).

Like Byron, Shelley suggests that the vital force of poetry itself is an electrical phenomenon, but develops this claim to declare, like Keats’s evocation of an ‘ellectric fire in human nature’, that this is a collective, and not an individualised phenomenon, and that writers thus play their part in demands for, and the achievement of, political reform. Shelley reiterates this continuity when he reuses this statement word for word in the concluding paragraph of *A* *Defence of Poetry* (1821) (Shelley, 2016, 678). The ‘electric life’ of writing vitalizes both literary and political enterprises.

Among Shelley’s uses of electrical science in his poetic work, the most sustained example is that of his drama *Prometheus Unbound* (1820). Shelley’s drama emphasizes the contemporary political significance of the Titan who snatched fire from the gods, gesturing to Benjamin Franklin’s Promethean feats in science and politics, and more recent literary celebrations of those achievements.[[12]](#footnote-12) And Shelley extends the iconoclastic implications of electrical phenomena into his preface, where he returns to the suggestion of an electric ‘spirit of the age’ animating writers of all kinds, and declares: ‘The great writers of our own age are… the companions and forerunners of some unimagined change in our social condition or the opinions which cement it. The cloud of mind is discharging its collected lightning, and the equilibrium between institutions and opinions is now restoring or is about to be restored’ (Shelley, 2016, 286). In a shift from the Promethean image of a Franklin-like figure controlling lightning, Shelley imagines the collective efforts of ‘great writers’ as that lightning, about to produce dramatic and potentially violent change, followed by new political equilibrium.

As Gilmore puts it, in comparison with his contemporaries, ‘Percy maintained a more dialectical understanding of the relationship, figured as electric, between immaterial thought and the material world. That understanding shaped both his political radicalism and his poetic theory’ (Gilmore, 2009, 66). For Gilmore, this enables Shelley to imagine a distinct form of materialist thought, similar perhaps to that suggested by Sha in the case of Keats, but with a much clearer articulation of political engagement. Shelley ‘explore[s] an alternative materialism based in electricity… [grounded] in the material - economic, scientific, linguistic - changes of the era’ (Gilmore, 2009, 72). The example of Shelley is somewhat exceptional, but it is crucial, I argue, for thinking about the significance of poetic discourses of electricity in the Romantic period. Despite Shelley’s focus on the ‘ineffable’ processes of poetic practice, electricity enables material forms of collectivity, communication and animation. His appropriation of electrical discourse is thus as politically-engaged as that produced a generation earlier, though it does perhaps mark the high point of such utopian visions of an electrical future; as Vermeir notes, the enabling ambiguity of the mysterious operations of electricity becomes less potent as electricity is better understood in the later part of the nineteenth century (Vermeir, 2015, 141-42).

**IV.**

In conclusion, I want to think about the ways in which the exciting critical field which focuses on electrical discourse might be further developed. Most of all, I want to suggest that scholars look beyond canonical examples of electrical language in scientific, political, and especially in literary writings, in order to assess as completely as we can the ubiquity of ideas about electrical communication, and the various significations of this rich body of writing. We might then see more studies, such as Jackson’s *Science and Sensation*,which consider political and poetic writings in dialogue rather than as separate categories, and which move beyond the small canon of poets I have discussed here. This is the kind of work I attempt in *Literature, Electricity and Politics 1740-1840*.

As an example of this kind of approach, we might take what appears to be another canonical representation of electrical science, namely Edmund Burke’s account of the spread of French revolutionary ideology in his *Letters on a Regicide Peace* (1796). Burke identifies a ‘silent revolution in the moral world [which] preceded the political, and prepared it’, namely the increasingly powerful financial and political interests of the middle classes. This ‘revolution’ is catalyzed through the influence of ‘above all, the press… [which] made a kind of electrick communication every where. The press, in reality, has made every Government, in its spirit, almost democratick’ (Burke, 1999, 186). Burke’s phrase ‘electrick communication every where’ attempts to account for the speed through which information is transmitted through the newspaper press. But Burke gestures not only to print on the page, or to the material distribution networks of the newspaper trade, but also to the intangible processes through which revolutionary thoughts, actions and feelings are spread from person to person, region to region and nation to nation. Gesturing perhaps to the physiological operations of electricity Burke signals an anxiety that such electric communication will catalyse a latent political activism in each individual that it touches. Electricity in Burke’s phrase is thus both a universal and intangible force, and a catalyst of material cultural and political effects.

‘Electrick communication every where’ has been much discussed by critics, and is often used to support claims that electricity is associated with reformist or revolutionary politics and is thus anathema to Burke (Jackson, 2008, 47; Solomonescu, 2014, 26; Packham, 2012, 132; Mee, 2016, 37). But as we have seen, it proves very difficult to assign electricity a stable ideological signification.[[13]](#footnote-13) As I discuss in *Literature, Electricity and Politics 1740-1840*, Burke is only one of a wide range of conservative commentators to appropriate electrical language at this moment, and while it is often used to condemn revolutionary communication or collective violence, it is also used, as in *The* *Times* report on the Birmingham riots, to praise the actions of loyalists. Arthur Young, in his pamphlet *The example of France a warning to Britain* (1793) which signalled his abandonment of his early support for the Revolution, praised the establishment of conservative associations, declaring how the ‘real friend to his country’ must ‘rejoice to see this electric stroke of true patriotism spread with vital energy through the empire’ (Young, 1793, 101). Examples like that of Young can help us to see that even writers engaged in a propaganda war reach for electrical language, not to signal a particular political position, but to articulate a particular characteristic of their contemporary moment. Young, and indeed Burke in the *Letters on a Regicide Peace*, use electrical imagery in order to signal the qualities of political communication in the mid 1790s, but also to gesture to the broader unprecedentedness of this political moment. Electricity seems to stand here for the potential for a political transformation that is both abstracted and material, that arises out of the body of each individual but that unites nations and continents with a nervous swiftness of communication. This is an ‘electrick communication every where’, and it would serve critics and historians well, I suggest, to acknowledge and interrogate the ubiquity of electrical discourse at this moment, and the complexity of the social, political, imaginative associations catalysed by such language.

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**Figure legends**

Figure 1: Cruikshank, I. (1792) *The Friends of the People*. London: S. W. Fores. © The Trustees of the British Museum.

1. See also Clay, 2008, 598. [↑](#footnote-ref-1)
2. For an account of the ways in which Priestley’s scientific work was demonized by Edmund Burke in particular, see Crosland, 1987. [↑](#footnote-ref-2)
3. Alessandro Volta produced the first continuous electric current with his ‘Galvanic pile’ in 1800 (Mertens, 1998). [↑](#footnote-ref-3)
4. See also Delbourgo, 2006; Fara, 2003; Heilbron, 1979; Bertucci, 2001. [↑](#footnote-ref-4)
5. For more on the ways dissent became associated with political radicalism in the 1790s, see Major, 2012, 292. [↑](#footnote-ref-5)
6. See also Bygrave, 2012. [↑](#footnote-ref-6)
7. See also Faubert, 2011; Priestman, 2014, 196-97. [↑](#footnote-ref-7)
8. See also Knellwolf King, 2008, 2; Rudy, 2009,18. [↑](#footnote-ref-8)
9. See also Gilmore, 2009, 72. [↑](#footnote-ref-9)
10. See also Jackson, 2008, 47; Packham, 2012*,* 132. [↑](#footnote-ref-10)
11. See also Galvani, 1953, 60. [↑](#footnote-ref-11)
12. Such reworkings of the Prometheus myth include Mary Shelley’s *Frankenstein: or, the Modern Prometheus* (1818). [↑](#footnote-ref-12)
13. Robert Mitchell declares of ‘experimental vitalism’ at this period: ‘I am not certain that experimental vitalism is linked – either structurally or historically to *any* particular politics.’ I am in sympathy with this view, but while Mitchell uses this insight to justify his decision not to analyse politics in his study of vitalism, I suggest that in the case of electricity it is a reason to interrogate the complexity of electricity’s political significance (Mitchell, 2013, 11). [↑](#footnote-ref-13)