**Mary Fairclough**

***Frankenstein* and the ‘spark of being’: electricity, animation and adaptation.**

In her ‘Author’s Introduction’ to the second edition of *Frankenstein* (1831), Mary Shelley describes the genesis of her novel. She tells how one night in 1816 she was struck by a ghastly image, which in turn produced a short story, and at last the full-length novel: ‘I saw the hideous phantasm of a man stretched out, and then, on the working of some powerful engine, show signs of life, and stir with an uneasy, half vital motion.’ In the introduction, she even recalls the opening line of this story: ‘I began that day with the words, “It was on a dreary night of November”, making only a transcript of the grim terrors of my waking dream.’[[1]](#footnote-1) This animation scene, the germ of Shelley’s story, appears much as she describes it here, in the first edition of *Frankenstein, or The Modern Prometheus*, published in 1818. Victor Frankenstein’s animation of his creature forms the focus of this essay, so I quote it in full:

It was on a dreary night of November, that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. It was already one in the morning; the rain pattered dismally against the panes, and my candle was nearly burnt out, when by the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs.[[2]](#footnote-2)

This scenario is familiar to a host of readers, if not directly from the novel, then from the countless adaptations, interpretations and dissertations on and of *Frankenstein* since its publication. But so thoroughly have such later accounts mediated this originary moment, that it is something of a shock to come back to the text; as Esther Schor notes, ‘readers who arrive at Shelley’s novel by way of the cinematic Frankenstein… are inevitably surprised by the quietness and dimness of the creature’s animation.’[[3]](#footnote-3) Such is the ambiguity of Victor’s actions in this scene that, as Marc Redfield has observed, the ‘mixture of luridness and obscurity has goaded critics into any number of painfully literal discussions of what Victor did and how.’[[4]](#footnote-4) While I share Redfield’s concern about the futility of seeking any definitive explanation of Victor’s animation of his creature, I suggest that the productive ambiguities Shelley inscribes into this one short paragraph reveal much about her engagement with contemporary scientific culture. Here I read cinematic adaptions of the novel alongside early nineteenth-century accounts of electricity and chemistry, to argue that we should complicate assumptions that Victor’s practice draws exclusively on electrical science, and consider Shelley’s phrase ‘spark of being’ as signalling a more complex engagement with questions of vitality and animation.

 We think that we know how Victor animates his creature, because we have seen the film adaptations in which writers and directors exploit the spectacular effects of electricity. The paradigm is set in James Whale’s *Frankenstein* (1931), while Mel Brooks’s *Young Frankenstein* (1974) and Kenneth Branagh’s *Mary Shelley’s Frankenstein* (1994), among many others, follow this pattern closely. However, the first stage adaptation of Shelley’s novel, Richard Brinsley Peake’s *Presumption, or the Fate of Frankenstein* (1823), presents a rather different account of the creature’s animation. Shelley attended a performance of *Presumption* on 29 August 1823 and praised the production’s handling of the animation of the creature. She wrote to her friend Leigh Hunt,

The stage represents a room with a staircase heading to *F* workshop – he goes to it and you see his light at a small window, through which a frightened servant peeps, who runs off in terror when F. exclaims ‘It lives . . .’ I was much amused, & it appeared to excite a breathelss [*sic*] eagerness in the audience…[[5]](#footnote-5)

The text of act one scene three of *Presumption* supports Shelley’s response to the scene. Victor declares ‘I’ll in and attempt to infuse the spark of life’, leaving the stage, as the stage directions note: ‘A blue flame appears at the small lattice window above, as from the laboratory’. Fritz, Victor’s assistant, exclaims that this is ‘the devil’s own flame!’, and at the moment of animation ‘the blue flame changes to one of a reddish hue’, as Victor declares, from the wings, ‘It lives! it lives’.[[6]](#footnote-6) It is significant that Peake’s animation scene has to happen off stage. Victor of course insists in the novel that despite Walton’s desire ‘to be informed of the secret with which I am acquainted; that cannot be’.[[7]](#footnote-7) But the secrecy required for this process in Peake’s production seems to acknowledge Shelley’s refusal to distinguish Victor’s precise actions in *Frankenstein* itself.

Twentieth-century film adaptations of *Frankenstein* depart from the occult implications of the animation of the creature in *Presumption*, though in the presentation of a voiceless creature who is charmed by music and frightened by fire, they draw more closely on the stage adaptation than on the novel.[[8]](#footnote-8) As Mark Jancovich warns, it would be a mistake to seek direct correlations between film adaptations of *Frankenstein* and the novel itself: ‘Adaptations of the Frankenstein story are inevitably a response to a range of other trends within the period within which they were made, trends that… shape what materials are deemed to be of interest and how they are interpreted and hybridized with other elements’.[[9]](#footnote-9) Each film adaptation appropriates and exploits aspects of the novel significant to the context of its production. The translation from text to stage to screen also necessitates shifts in focus. In any dramatic production, the audience is able to see what they can only imagine when reading the novel, and while *Presumption* refuses the challenge of a direct representation of Victor’s experiments, film adaptations embrace and make spectacular the animation scene as a thrilling example of cinematic wonder. As Schor notes, ‘cinema’s fascination with the scene of animation is not simply a throwback to… regency theatres… it is the scene in which cinema explores, most acutely, its power to realize a conundrum the novel merely glimpses.’ [[10]](#footnote-10) This embrace of the spectacular is especially clear in *Frankenstein*’s most celebrated twentieth-century adaptation, James Whale’s *Frankenstein*, made for Universal Pictures in 1931.

Whale’s *Frankenstein* is not adapted from Shelley’s novel, but from a stage adaptation by Peggy Webling, *Frankenstein: An Adventure in the Macabre*, performed in London in 1930; and Universal’s interest in the Frankenstein story arose out of a desire to sustain the success they had achieved with their cinematic adaptation of *Dracula*.[[11]](#footnote-11) But the scene in which ‘Henry’ Frankenstein animates his creature sets Whale’s *Frankenstein* apart from other Universal Monster films, and focuses squarely on the ambiguities posed by Shelley in the novel. For Whale, the animation is a scientific, electrical process, one that draws on twentieth century, as well as nineteenth-century, understandings of electricity. Frankenstein hoists the body of the creature on a platform to the roof where a lightning storm is played out. But these natural electrical phenomena are supplemented by an array of experimental tools and machinery. As Christopher Frayling notes, the architecture of the scene feature ‘a curious mix of 1816 and 1931: incomprehensible dials, a huge Volatic battery, a Wimshurst machine, lightning-arc generators, piles of Bakelite bric-a-brac and leiden jars and an adjustable metal hospital bed’.[[12]](#footnote-12) Whale’s scene seeks not scientific precision but rather spectacle, what Schor terms the ‘drama of animation’.[[13]](#footnote-13) He even places Elizabeth, Victor Moritz and Dr Waldman at the scene, to provide an audience for Frankenstein’s actions.

As Redfield notes, this representation of the creature’s animation becomes a radically cinematic event, indeed a metaphor for cinema itself: ‘In Whale’s film monster-making is a collective activity, involving a tyrannical director, an assistant, an audience, and a grand spectacle… Cinema has animated [the creature], figuratively as well as literally.’[[14]](#footnote-14) Such is the spectacular success of Whale’s electrical animation of Frankenstein’s creature that successive film adaptations have followed his model closely. Whale’s own follow-up, *Bride of* *Frankenstein* (1935), employs even larger and more dramatic electrical equipment in the animation of a female mate for the creature. And even films which attempt to rework Whale’s vision, whether through parody in Brooks’s *Young Frankenstein*, or a boasted return to the source text in Branagh’s *Mary Shelley’s Frankenstein*, follow the electrical model of the animation closely, to the extent that they reproduce Whale’s shots of electrical instruments precisely. Film adaptations of *Frankenstein* thus move away from the ambiguity of the novel’s account of the creature’s animation, to focus on the spectacular possibilities of cinematic representation.

In contrast to these film adaptations, Shelley makes no explicit mention of electricity in her account of the creature’s animation. That is not to say that the adaptations I have discussed here constitute a misinterpretation of *Frankenstein*. Shelley does seem to be engaging with electrical science, but her short paragraph exploits the ambiguities of electricity at the moment she is writing, by suggesting several possibilities for the science of the creature’s creation. According to early nineteenth-century understandings of electrical phenomena, Victor could be administering a galvanising electrical shock, or evoking more occult properties of ‘animal electricity’ to create the same effect. Shelley’s phrase ‘spark of being’ could be a material ‘spark’ or a more figurative exploitation of the association between electricity and vitality. I focus here on the ‘spark of being’, to consider how it might have been understood in the period in which Shelley was writing. This focus brings my analysis back to film adaptation, and at the close, I investigate a much more recent use of the phrase, in Bill Morrison’s 2010 adaptation of the novel, *Spark of Being*, a film which departs from the electrical spectacle of earlier adaptations to restore the open interpretive possibilities of Shelley’s ‘spark of being’.

 In questioning the operation of electricity in Victor’s animation of the creature, I swim against the critical tide. Marilyn Butler, along with a range of critics including Anne K. Mellor, Laura Crouch, Sharon Ruston and Naomi Hetherington, points to the connection between his practice and that of contemporary experimenters who made use of the new ‘galvanic’ electric battery.[[15]](#footnote-15) Butler notes: ‘Frankenstein’s “instruments of life” capable of infusing the “spark of being” suggest the galvanic battery used in real life to try to bring a poisoned cat or hanged criminal back to life’.[[16]](#footnote-16) Readings like Butler’s analyse the animation of the creature within the context of the electrical science of the 1810s. In her introduction to *Frankenstein*, Butler offers a sustained analysis of the connection between Victor’s practice and the debate between the surgeons John Abernethy and William Lawrence in the years 1814 to 1819, in which Abernethy argued for an electrical theory of life, to which Lawrence could not subscribe. Abernethy argues: ‘The phaenomena of electricity and of life correspond. Electricity may be attached to, or inhere, in a wire; it may be suddenly dissipated, or have its powers annulled, or it may be removed by degrees in portions… So life inheres in vegetables or animals.’[[17]](#footnote-17) But for Lawrence, Abernethy’s ‘electro-chemical doctrine of life’ rests on a flimsy analogy, which cannot stand up to experiment. He declares: ‘I never met with even the shadow of a proof that the contraction of a muscle or the sensation of a nerve depended in any degree on electrical principles.’[[18]](#footnote-18) Butler argues that *Frankenstein* supports Lawrence’s critique of Abernethy’s electrical theory of life.[[19]](#footnote-19) Yet her reading of the animation scene nonetheless literalises Abernethy’s ‘analogy’ between electricity and vitality, comparing it with the experiments of showmen demonstrators like Giovanni Aldini in 1802 and Andrew Ure in 1818, who used ‘galvanic’ electricity to stimulate the muscles of dead animals and even executed criminals, to produce the effects of animation.[[20]](#footnote-20) While Shelley certainly plays with the connections between spectacular display and electrical science in *Frankenstein*, it does not follow that the ‘instruments of life’ Victor employs are necessarily electrical.[[21]](#footnote-21)

Other aspects of Victor’s education in the novel suggest, however, that he is acquainted with the operation of electricity, and potentially its animating powers. In chapter one, fifteen-year-old Victor witnesses a thunder storm:

As I stood at the door… I beheld a stream of fire issue from an old and beautiful oak, which stood about twenty yards from our house; and so soon as the dazzling light vanished, the oak had disappeared, and nothing remained but a blasted stump. When we visited it the next morning, we found the tree shattered in a singular manner. It was not splintered by the shock, but entirely reduced to thin ribbands of wood. I never beheld anything so utterly destroyed.[[22]](#footnote-22)

Victor’s father explains how the ‘catastrophe of the tree’ is produced by electricity, and the pair recreate experiments with ‘a small electrical machine’ and even the kite made famous in the work of Benjamin Franklin, as Shelley aligns Victor’s education with contemporary electrical practice.[[23]](#footnote-23) Even the first reviews of *Frankenstein* raise the question of whether Victor’s means of animating the creature is an electrical process. Walter Scott in the *Edinburgh Magazine* focuses on the creature’s material ‘organised frame’, but in contrast, John Wilson Croker in the *Quarterly Review* condemns the ‘enthusiasm’ by which Victor is led ‘to study the structure of the human frame, and to attempt to follow to its recondite sources “the stream of animal being”.’[[24]](#footnote-24) Croker’s phrase ‘stream of animal being’ is apparently a misquotation, as it does not appear anywhere in the novel, but it does echo Victor’s account of the destruction of the tree. So while the novel makes no explicit connections between Victor’s electrical experiments, the lightning storm’s ‘stream of fire’, and vitality, Croker’s ‘stream of animal being’ demonstrates the ease with which these concepts can be connected.

 But despite these textual suggestions that Victor might use electricity to animate his creature, we should not rule out other interpretations of these events. Importantly, even the most explicit claim for the animation as an electrical galvanic process, Shelley’s 1831 ‘Author’s Introduction’, is compromised. Shelley notes that when she conceived the novel fifteen years earlier, reanimation was a real scientific possibility: ‘Perhaps a corpse would be re-animated; galvanism had given token of such things: perhaps the component parts of a creature might be manufactured, brought together, and endued with vital warmth.’[[25]](#footnote-25) But there is no such reference to galvanism in the 1818 edition. Shelley’s claims in 1831 about the origins of the novel in fact seem entirely distanced from the 1818 text; critics have noted what Butler terms the ‘exaggerated, sensationalized diversion[s]’ of the ‘Author’s Introduction’, which play down the radical implications of the narrative.[[26]](#footnote-26) Shelley’s naming of Victor’s science as galvanism in 1831 might then be read as part of the effort, as Hetherington puts it, to revise ‘her early work in order to dissociate it’ from earlier influences, and to foreclose the radical interpretive openness of electrical science in the first edition of the novel.[[27]](#footnote-27)

 *Frankenstein*’s references to electrical science suggest Shelley’s awareness that in the 1810s, electricity relates to life in many more complex ways than just the analogies of Abernethy and the galvanic experiments of Aldini and Ure. She signals this complexity when she has Victor refer to the ‘spark of being’ he will ‘infuse’ into the creature. This ‘spark’ may signify, as Croker in the *Quarterly Review* suggests, an electric ‘stream of fire’ like that which destroys the oak in chapter one of *Frankenstein*. But two contrasting uses of the phrase ‘spark of being’ in contemporary accounts suggest more complicated associations between electricity and life. In a sermon published in 1794, the evangelical preacher Samuel Davies declares to his congregation:

A few years ago you were nothing. But at the creative fiat of the Almighty, that little spark of being, the soul, was struck out of nothing; and now it warms your breast, and animates the machine of flesh. But shall this glimmering spark… ever be extinguished? No; it will survive the ruins of the universe, and blaze out into immortality.[[28]](#footnote-28)

In Davies’s account, the ‘spark of being’ refers to the soul, but the immaterial soul and physiological vitality are intimately connected; this ‘spark’ is described in sensual terms of warmth and light, but is nonetheless immortal, and divinely imparted from God.

However, just six years later in *Phytologia* (1800), Erasmus Darwin discusses reproduction in plants and animals, and declares:

Every new fluid or solid produced in the organic system of vegetable or animal bodies is secreted from their blood… Amongst these are… the *flavilla vitae*, the new spark of being or living entity, [which] is also secreted from the blood of male animals by adapted glands to be received into a proper nidus, and nourished by the female.[[29]](#footnote-29)

For Darwin, the ‘spark of being’ has no divine provenance; it is a ‘living entity’ produced by organic processes of reproduction in male and female plants and animals. The passage from *Phytologia* even seems to anticipate Percy Bysshe Shelley’s reference to Darwin’s work in his Preface to the 1818 edition of *Frankenstein*, in which he declares that ‘the event on which this fiction is founded has been supposed by Dr Darwin, and some of the physiological writers of Germany.’[[30]](#footnote-30) Vitality for Darwin is a product of the organization of organic matter, but nonetheless he describes the quality of being alive rather than dead as a ‘spark’. These two examples seem to articulate irreconcilable conceptions of the ‘spark of being’, but in her animation scene Shelley evokes both, gesturing to Victor’s potential invocation, or corruption, of divine powers, and even also to the spontaneous reproduction of organic materials. These examples thus suggest that the ‘spark of being’ manipulated by Victor in his animation of the creature is by no means clearly an electrical spark produced by a ‘galvanic’ electric battery, and that it would be a mistake to close down other possible explanations for its vital effects.

 One of the most interesting and sympathetic recent responses to this aspect of the novel adds a new perspective to the question of the nature of the ‘spark of being’ in Shelley’s text, and demonstrates that not all film adaptations of *Frankenstein* delight in a spectacular, electrified animation scene. Bill Morrison’s 2010 film *Spark of Being* reconstructs the story of *Frankenstein* using found film footage, accompanied by a jazz soundtrack by Dave Douglas. Like Whale and others before him, Morrison connects his film-making practice with the concerns of the novel, noting that in the stitched together materials of his film he saw an ‘opportunity to merge the text and the form.’[[31]](#footnote-31) Morrison and Douglas see the animation scene as the foundation of the project, with Douglas remarking that the title is a ‘metaphor for the way we are working’.[[32]](#footnote-32) Though Morrison’s *Spark of Being* reproduces the whole of the narrative of the novel I focus here on the section of the film which represents Victor’s research and subsequent animation of the creature. The scene opens with the shot of the hands of an experimenter working with a microscope, before cutting to colour tinted close-ups of the movement of microscopic organisms, intercut with shots of decaying dead birds, before closing with more images of chemical instruments and the figure of a body being removed from clinical storage. In contrast to the cinematic adaptations of the novel discussed earlier, the animation scene in Morrison’s *Spark of Being* features no explicit electrical imagery, but instead draws attention to Victor’s description of his research methods in volume one chapter three of the novel, where he declares that ‘natural philosophy, and particularly chemistry in the most comprehensive sense of the term, became my sole occupation’, and states that ‘to examine the cause of life, we must first have recourse to death’.[[33]](#footnote-33) For Morrison, Shelley’s ‘spark of being’ seems to be a product of chemical research, and biological processes of propagation and decay.

Morrison is not the first film maker to note the significance of chemistry for Victor’s work. The earliest film adaptation of *Frankenstein*, a fourteen-minute silent film produced by the Edison film company in 1910, depicts Victor animating the creature by throwing a succession of chemical ingredients into a cauldron, but as critics have noted, this representation stresses the magical or alchemical implications of Victor’s practice.[[34]](#footnote-34) Morrison in contrast makes the animation of the creature the product of laboratory-based experimental practice in chemistry and physiology. We should note of course that during the 1810s, as Shelley was aware, the disciplines of electrical science and chemistry were thoroughly intertwined, most obviously in the electrochemical work of Humphry Davy, who is often cited as an influence on *Frankenstein*.[[35]](#footnote-35) But I suggest that Morrison’s refusal to opt for spectacular electrical effects in his animation scene is remarkably faithful to early nineteenth-century understandings of the interconnected operations of chemistry, electricity and vitality, which I discuss at greater length in my monograph *Literature, Electricity and Politics 1740-1840: Electrick Communication Every Where*.

Though electricity may well be at work in Shelley’s animation scene, we have no reason to reduce its interpretive possibilities to a galvanic shock-fest, because in the 1810s the connection between electricity and life is much more complex, as Morrison seems to intuit. Victor might well be vitalising the creature with an electrical shock; but equally, he might be blasphemously appropriating divine power by infusing the creature with an ethereal equivalent to a soul. He could have discovered the secret of harnessing the generative power of the electrical force inherent in the nerves and cells of all living matter, or have solved the mystery of the relationship between chemical affinity and life. In asking us to decide, I would of course ignore wise warnings that such a definitive reading is futile. So I instead follow Fred Botting’s suggestion that *Frankenstein* ‘operates along the borders of narrative and linguistic indeterminacy, traversing the indefinite boundaries which police the differences constitutive of meaning.’[[36]](#footnote-36) It is Shelley’s manipulation of the ambiguity of contemporary accounts of electricity, chemistry and vitality that enables her to accomplish this effect, and despite the emphasis of film adaptations on the visual and spectacular, it is possible for film makers too to reproduce that productive obscurity.

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4. Marc Redfield, ‘*Frankenstein*'s Cinematic Dream’, *Romantic Circles Praxis*: Frankenstein’s Dream, 2003. [↑](#footnote-ref-4)
5. Mary Shelley, *The Letters of Mary Wollstonecraft Shelley*, ed., Betty T. Bennett, vol. 1 (Baltimore: Johns Hopkins University Press, 1980), 378; see Schor, ‘*Frankenstein and Film*’, 63. [↑](#footnote-ref-5)
6. Richard Brinsley Peake, *Presumption, or The Fate of Frankenstein*, ed., Stephen C. Behrendt, *Romantic Circles,* 2001. See also Diane Long Hoeveler, ‘Nineteenth-Century Dramatic Adaptations of *Frankenstein’*, *The Cambridge Companion to Frankenstein*, ed. Andrew Smith (Cambridge: Cambridge University Press, 2016), 177. [↑](#footnote-ref-6)
7. Shelley, *Frankenstein*, 35. [↑](#footnote-ref-7)
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10. Schor, ‘*Frankenstein* and Film’, 66. [↑](#footnote-ref-10)
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21. See also Redfield, ‘*Frankenstein*'s Cinematic Dream’; Richard C. Sha, ‘Volta's Battery, Animal Electricity, and *Frankenstein’*, *European Romantic Review*, 23:1 (2012), 21. [↑](#footnote-ref-21)
22. Shelley, *Frankenstein*, 24. [↑](#footnote-ref-22)
23. Ibid.,. [↑](#footnote-ref-23)
24. Walter Scott, *Edinburgh Magazine*,March 1818, 250; John Wilson Croker *Quarterly Review* January 1818, 379. [↑](#footnote-ref-24)
25. Shelley, ‘Author’s Introduction’ (1831), in *Frankenstein*, ed. Butler, 195-96. [↑](#footnote-ref-25)
26. Butler, ‘Introduction’, xxiii. [↑](#footnote-ref-26)
27. Hetherington, ‘Creator and Created’, 5; Butler, ‘Introduction’, xxiii. [↑](#footnote-ref-27)
28. Davies, *Sermons on important subjects*, (Philadelphia: Robert Campbell, 1794), 41. [↑](#footnote-ref-28)
29. Darwin, *Phytologia: or the philosophy of agriculture and gardening* (London: J. Johnson, 1800), 91-92. See also Erasmus Darwin, *The Temple of Nature; Or, The Origin of Society* (London: J. Johnson, 1803), 161. [↑](#footnote-ref-29)
30. Percy Bysshe Shelley, ‘Preface’ in Shelley, *Frankenstein*, 3. [↑](#footnote-ref-30)
31. Bill Morrison, Interview with Walker Art Center, 7 October 2010. [↑](#footnote-ref-31)
32. Bill Morrison and Dave Douglas, Interview with Stanford Lively Arts, 22 April 2010. [↑](#footnote-ref-32)
33. Shelley, *Frankenstein*, 32-33. [↑](#footnote-ref-33)
34. Wheeler Winston Dixon ‘The Films of *Frankenstein*’*,* in *Approaches to teaching Frankenstein*, 167; Friedman and Kavey, *Monstrous Progeny*, 95. [↑](#footnote-ref-34)
35. Crouch, ‘Davy's *A Discourse*’. [↑](#footnote-ref-35)
36. Fred Botting, *Making Monstrous: Frankenstein, Criticism, Theory* (Manchester: Manchester University Press, 1991), 4. [↑](#footnote-ref-36)