Shelley's shocks

Electricity seemed new and magical, its limits not yet known: could it really arouse the dead? The Frankenstein story expressed an era's trepidation at the prospect of discovering the secret of life.

Martin Kemp

The popular image of the magus-scientist who discovers the ultimate key to the creation of life has a long history, from the era of the alchemists to the more alarmist accounts of the recent cloning of Dolly. Never was there a greater sense that the secret of life was in the process of being disclosed than in the late eighteenth century, in the wake of revelations about the life-giving properties of 'oxygenated air' and sensational experiments with electricity.

Frankenstein or The Modern Prometheus, written by the 19-year-old Mary Shelley and published in 1818, is the supreme and most enduring literary product of these obsessions. During "long conversations" with Percy Shelley and Lord Byron in Byron's Swiss villa, she tells how "various philosophical doctrines were discussed, and among others the nature of the principle of life... They talked of the experiments of Dr [Erasmus] Darwin... who preserved a piece of Vermicelli... till by some extraordinary means it began to move with voluntary motion... Perhaps a corpse could be re-animated: galvanism had given a token of such things." The reference to galvanism is hardly surprising.

Great interest centred upon Luigi Galvani's account in 1781 of how the detached leg of a frog could be made to move when an arc of two metals formed a bridge between the muscle and the crural nerve. Galvani's claim to have discovered animal electricity attracted an enthusiastic following. The chemical potency of electricity as it was being progressively disclosed seemed perfectly suited to be the mysterious ingredient that infused dead things with vital powers.

A series of experimenters took up the challenge to produce life from death. The German physician, Karl August Weinhold, introduced a zinc and silver amalgam into the spinal chord of a kitten whose brain had been spooned out, with the result that it "hopped around, and then sank down exhausted".

Galvani's nephew, Giovanni Aldini, used electric currents to stimulate vivid expressions in the heads of executed criminals. And, in the year of the publication of *Frankenstein*, Andrew Ure, a Scottish chemist working in London, sensationally adapted Aldini's methods to induce 'life' in a criminal's corpse.

Shelley is careful not to describe Victor

Spark of life: animation as depicted in *Son of Frankenstein* (Rowland V. Lee, 1939) (left) and *Young Frankenstein* (Mel Brooks, 1974).

Frankenstein's "instruments of life", but it is clear that he used the unleashed powers of "electricity and galvanism" which Victor describes, after witnessing a bolt of lightning destroying an oak tree, as "new and astonishing to me". The repeated cinematic reworkings of the story typically characterize the mechanism that infused the "spark of life into the lifeless thing" as harnessing vast electrical power, sometimes directly from lightning.

What shocked Shelley, as she lay in bed imaging the terrible scene, still has the power

to haunt the public imagination: "I saw the hideous phantasm of a man stretched out, and then, on the workings of some powerful engine, show signs of life, and stir with an uneasy, half-vital motion. Frightful it must be; for supremely frightful would be the effect of any human endeavour to mock the stupendous mechanism of the Creator of the world."

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