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Jessica MacDonald
Huron University College, jmacd89@uwo.ca

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Out of Bounds: 
The Mad Scientist Figure in the Nineteenth Century

Jessica W. Macdonald, Huron University College

Abstract: This paper examines the figure of the scientist in nineteenth century England. It argues that this figure encroaches upon religious territory by examining both real-life scientists (Darwin and his contemporaries) and their literary counterparts, as found in Robert Louis Stevenson’s *The Strange Case of Dr. Jekyll and Mr. Hyde*, H. G. Wells’ *The Island of Dr. Moreau*, and Richard Marsh’s *The Beetle*. These sources—contextualized by the development of Christianity and the Self/Other mode of thinking it enforces—reveal scientific paranoia as concern not over the consequences of scientific exploration, but rather the fear of a god-like figure who can unite previously divinely separated entities like man and animal. Through this figure, then, science in the nineteenth century becomes a new form of religion powerful enough to affect a paradigm shift in belief that echoes the original shift of Judeo-Christian religion away from the ‘pagan’ polytheistic belief systems.

Keywords: Scientist, Polytheism, Animal, Christian, Boundary.
Ubiquitous to 19th-century British literature is the scientist, a figure deeply problematic to religious faith and often portrayed as a villainous plague on his civilization. The mad scientist figure in 19th-century England is rooted in widespread anxiety about scientific exploration and its consequences, ranging from the debate over vivisection to the concern that scientists were ‘playing God’ in their experiments, thereby moving beyond Christianity. The Christian tradition itself evolves out of a practice of separating itself from an Other that was originally Greco-Roman ‘paganism’ and the locus of crossed creatures contained therein. As such, the 19th-century rise of scientific thought, such as Darwinism, which crossed lines between the Christian Self and animal Other, as well as the pseudo-scientific reinvigoration of ‘pagan’ practices provoked a cultural paranoia that spilled over into literature. Thus, examining the representations of scientists in 19th-century literature—principally here H. G. Wells’ *The Island of Dr. Moreau*, Robert Louis Stevenson’s *The Strange Case of Dr. Jekyll and Mr. Hyde*, and Richard Marsh’s *The Beetle*—illustrates contemporary perceptions of scientists and the omnipresent fear that science will (and, indeed, in the 20th century does) rise as a new and more powerful form of religion than Christianity.

Christianity’s central Self/Other paradigm is established quickly in the early chapters of Genesis, with the Christian God’s division of “the light from the darkness” and “the waters from the waters” (1:4, 1:6). Human and Animal quickly become Self and Other with the declaration that one has “dominion” over another (Genesis 1:26). The divisive tendencies of Christianity represented a conscious shift away from Judaic animal sacrifice and the Greco-Roman and Egyptian polytheistic systems. Many of the newer Christian legends, doctrines and miracles are adapted from pagan sources; Christian writers “took especial pains to destroy the pagan records and so obliterate the evidence of
their own dishonesty” (Carpenter 205). Look for example at Jesus’ turning of water into wine, previously attributed to the Greek God Bacchus—a similar example is Neptune’s trident, which was refashioned to Satan’s use in the Judeo-Christian system (Carpenter 213).

Northrop Frye and Jay Macpherson suggest that “in the earliest times the forms of things were more fluid”; indeed this fluidity manifests itself clearly in Ovid’s *Metamorphosis* and other Greco-Roman myths (306). Gods and mortals mingled and produced children together—Zeus infamously had many affairs with mortals, resulting in such famous children as Helen of Troy and Hercules. Compare this to the separation of God and men in Christianity. Of particular significance in the *Metamorphoses*, however, is the fluidity between human and animal forms. Europa and the Bull and Leda and the Swan are both instances of the crossings not just of mortals and gods, but also men and animals; Zeus took animal form, and Leda bore his children as hatchlings from eggs. The mutability of human and animal forms in the Greco-Roman system is further evident in the locus of hybrid entities contained therein, where Centaurs (horse-men) and Satyrs (goat-men) flourish alongside the falcon-headed Horus, the jackal-headed Anubis, and the famous cat-human Sphinx inherited from the Egyptian cosmos.
These plates from the 1665 edition of Fortunio Liceti’s *De Monstris*, depict monstrous crossed creatures, some of which are recognizably taken from Greco-Roman mythology, such as the Satyrs (right). Licensed under CC Public Domain.

The boundaries established between Christianity and other religions, however, condemn such ‘pagan’ hybrids. The Book of Luke etymologically links ‘demons’ with cross-breeds: mythical creatures were called “daemonia; long familiar to Greeks as a word for minor divinities, this was eagerly caught up by Christians to designate all supposed gods of paganism, and passed into modern language as ‘demon’” (Jones 2).

Animals and animal sacrifice for so-called ‘pagans’ were a means of communicating with the gods and thus etymologically linked with holiness; animal victims in the Bronze Age Linear B form of Greek is “hiereion, ‘the holy object’: the Latin word *victim* also comes from an Indo-European root meaning ‘holy’” (Jones 62, 61). This animal sacrifice posed a problem for Christianity in a way that it did not for Judaism as the result of the presence of Christ. Christ’s sacrifice necessitates a strong break from the Judaic tradition, since His death is the one great sacrifice meant to surpass all others. Any comparison of Christ with the “repellant form of sacrifice” Christians saw in ‘pagan’ animal slaughter was untenable because it trivialized Christ’s divinity (Jones 34). The denial of animal
spirituality stemming from this disjunction is evident in the tendencies of Enlightenment thinkers—such as Rene Descartes—to hypothesize the animal as a ‘beast-machine’.

Scientific exploration, however, often focuses on the unifications, rather than disjunctions, challenging the boundaries Christianity established centuries earlier. For instance, Giambattista della Porta’s 16th-century book of human physiognomy, De humana physiognomonia libri IIII (pictured below), bridged the gap established between human and animal, a tendency which Darwinian thought extended.
W. H. Hudson, Darwin’s contemporary, argued that “the fact of evolution in the organic world was repellent…because we did not like to believe that we had been fashioned, mentally and physically, out of the same clay as the lower animals,” using religion—in this case the explanation given in Genesis about the creation of man and animals from dirt—as many philosophers did reflexively to argue against science (qtd. in Schmitt 38). By invoking divine intelligence through natural theology to explain away “whatever was not apparently lawlike,” further scientific investigation was rendered unnecessary (Levine 85). Darwin and other natural scientists, however, had to challenge the use of Christianity as a teleological explanation in itself; only in so doing could they integrate humans with the rest of the natural world and therefore subject them to analysis alongside animals.

Natural theology is “an implicit defense of the way things are—a theodicy” (Levine 84). Conversely, natural selection explained the natural world without invoking God and could therefore look at species without the otherwise omnipresent mysticism of creation clouding observation. This secularization, however, presented its own worry to Darwin’s Victorian audience; the concern that science could preclude God in a Christian society manifested itself in profound anxiety about the scientist figure who could affect such a shift in belief.

Alfred Russel Wallace, sometimes called “Darwin’s co-discoverer of natural selection,” was likewise noting the resemblance of humans and animals in his studies of indigenous tribes in Borneo (Moore 292). Comparing the indigenous Dyaks to orangutans, he stated “the more I see of uncivilized people…the better I think of human
nature on the whole, and the essential differences between so-called civilized and savage man seem to disappear” (qtd. in Moore 298). Wallace observed that orangutans’ bodies “mocked ‘the human form divine’ and, [that] like tribesmen, they kept in one locale” (Moore 299).

Even merely at the level of researching the Other in the field and bringing his discoveries back to Victorian society, Wallace as a scientist was effecting a unification of sorts of the Self with the Other. However, more immediately concerning to Darwin and Wallace’s contemporary audience was their problematization of the definition of species originally categorized by God. Observation “invariably yields facts that blur the margins… Multiplicity and difficulty of definition reduce the prima facie case for rationality and simplicity—and hence for intelligent design” (Levine 106). Science, in other words,
through the suggestion of a unification of man and animal, undermined the idea of the universe as the logical creation of one God.

Pseudo-sciences, although since discredited, formed another branch of popular exploration—mesmerism, alchemy, clairvoyance and somnambulism, among others “occasioned great public interest...[and] continued to fascinate” their 19th-century audience—that challenged conventional Christian thought because of its seemingly pagan origins (in this sense, representative of a mysticism alien to Christianity) (Reed 441). Franz Mesmer, for whom mesmerism (an early precursor to hypnotism) is named, achieved fame through his experiments, maintaining “a mystical aura...[and] claim[ing] to work through an occult power” by which he could control the fluids in the human body (qtd. in Wells 125). Christine Kenyon-Jones cites the widespread belief that ingesting bulls or even joining in sports such as bull-baiting could endow people with bull-like characteristics, evincing the recurrence of the Greco-Roman belief in the mystical powers of animals (204). As a result of the flourishing of Darwinism and pseudo-science, the figure of the scientist became closely associated with the unification both of animal and man, and man and occult power.

John Knox suggested that “true myth is never consciously invented; it is a cultural inheritance” (24). The figure of the scientist, in its association with the occult and the connections it makes between man and animal, is haunted by the spectre of past religions. Knox asserts that such mythic connotations are “indispensable symbol[s]” in cultural memory; while a new generation of scientists can reinterpret the myths of Paganism that early Christianity feared, “it cannot conceivably substitute another myth for it” (24). As a result, scientists whose experiments tended to unification were haunted by this darkness from the past, and their theories met with resistance.
Indeed, scientific inquiry for 19th-century novelists occupied a similar place to that of religion in the earlier Gothic novel. The Protestant Reformation left behind a serious concern with religion that emerges in literature around tropes of Catholicism such as monks, nuns and ruined abbeys—Matthew Lewis’ 1796 novel The Monk offers an example of this concern (Hoeveler 5). Fears that Catholic power would reemerge to threaten English Protestantism ran high. The developments in 19th-century science resulted in the formation of an almost parallel figure of hysteria in the mad scientist, whose association with occult behaviors raised the specter of a resurgence of paganism, another religious threat to English Protestantism.

Although the paranoid reaction becomes most prominent in the 19th century because of the expansion of scientific experiment, expressions of concern are evident even in the early modern period. Writing religious meditations in the 16th century, John Donne famously used scientific and metaphysical conceits to approach religious topics, while simultaneously cautioning his readers against the dangers of science, a “new philosophy [which] calls all in doubt” (205). Ben Jonson’s play The Alchemist would similarly problematize those claiming science as pretext for their actions, by emphasizing the potential usefulness of his titular pseudo-science to criminals. Likewise, Shakespeare’s Perdita in A Winter’s Tale refuses to plant gillyvors in her garden, claiming that they were “nature’s bastards” (4.4.83). Gillyvors, as a species produced by a scientific grafting process, do not follow the Christian method of divine creation, and therefore she considers them illegitimate.

The early modern period’s fascination with and wariness of science and the scientist figure is elevated multifold in 19th-century literature. In the 19th-century, the archetype of scientist has two main strands: “the crackpot scientist—balmy alchemist,
virtuoso, projector,” who likely originates in the early modern period, and the scientist with a “passion for esoteric knowledge and [a] monstrous interference with the course of nature,” whose origins can be traced to Mary Shelley’s *Frankenstein* (Stoehr 251, 252). In this model, the crackpot scientist is a utopian figure of fun and idealism, while the monstrous experimenter is “Faustian…sacrilegiously meddling with the souls of his victims” (Stoehr 252-253). It is this latter category into which scientists like Moreau, Jekyll, and Atherton (and the Beetle) are placed, symbols of crossing into an Other and so contravening religious tenets.

Moreau overtly links the humans and animal, creating creatures “human in shape…with the strangest air about them of some familiar animal…[the] irresistible suggestion of a hog, a swinish taint, the unmistakable mark of the beast” (Wells 100). Wells ties Moreau closely to prominent scientific figures of his time such as Mesmer and Darwin; Moreau admires the “growing science of hypnotism,” while evolutionary theory is implied in the idea of “the plasticity of living forms” (125, 124). Prendick in this sense is the marker for Victorian morality and Christian values here, observing a “strange wickedness” in the choice of human form and the suggestion that, like Perdita’s gillyvors, Moreau’s creations are “superceding old inherent instincts by new suggestions, grafting upon or replacing the inherited fixed ideas” of Christianity (Wells 126, 125). Wells’ critic R. H. Hutton asserted that the “extinguish[ing of] the chasm which divides man from brute” in the text was tantamount to “the fanaticism of a foul ambition to remake God’s creatures,” again revealing the concern that science could supersede Christianity in reconnecting Self and Other in the form of human and animal (189).

Marsh’s Beetle likewise removes the boundaries between the human and animal (here insect), but also the boundaries between men and women; the Beetle’s
indeterminate sex makes both men and women its sexual victims. In its ability to “pump…life from [the Beetle’s] own body into the unconscious man’s [Percy]” as well as the penetration it performs on Holt, “envelop[ing] [his] face with its huge, slimy, evil-smelling body, and embrac[ing] [him] with its myriad legs,” readers can find not only sexual imagery—itself taboo yet fascinating for Victorians—but a fear of the Other somehow infecting the Self (Marsh 139, 52).
In the above 1895 press photo by Henry Van der Weyde, he used a double exposure to capture Richard Mansfield in his dual roles as Henry Jekyll and Mr. Hyde in the 1887 London stage adaptation of Stevenson’s original novel. Licensed under Public domain, via Wikimedia Commons.

Stevenson too shows in Jekyll and Hyde the “thorough and primitive duality of man,” suggesting repeatedly that Hyde is the degenerative and animal Other to Jekyll (Stevenson 79). In some senses, the dual personalities of Jekyll as scientist parallel the utopian/Faustian scientific binary; however, their incorporation into one person suggests, just as Jekyll’s tainted salts do, that the two coexist, that underneath even the seemingly harmless scientific inquirers there lurks something darker.

Marsh’s beetle articulates this dark threat in terms of Egyptian polytheism victimizing an English population. Lessingham as “the Apostle” presents a new figure of religion around which to gather, made non-threatening by his status as English Protestant (Marsh 146). However, his mysterious association with the beetle—a “child of Isis,” closely associated with “Egyptian mythologies” through its form as “ancient scarab”—puts Lessingham’s religion in the context of the past, significantly problematizing it (Marsh 149, 148). Sydney Atherton is himself a kind of scientist god figure, “endowed with an unusual tenacity of vision” like God’s vision for the world, and of course exerting powers of life and death through his ‘magic vapors’ (Marsh 141). In his use of electricity, he makes the beetle worship him as a kind of god; after being shocked with electricity, the beetle “shook with terror… [crying] ‘My lord!—My lord!—have mercy, oh my lord!’” (145). In Atherton’s claim that the beetle’s mesmeric powers and his experiments are parallel “magic[s],” he aligns again his science with the pagan mysticism of the beetle. Marsh’s contemporary Georgia Louise Leonard dubbed the beetle’s powers “the occult sciences of Egypt,” amalgamating science with pagan mystical religious activity,
making the scientists of the 19th century dangerous magicians invoking the past rather than progressing to the future (Marsh 149; Leonard 340).

The perceived darkness behind scientific inquiry for 19th-century Britain lies not only in the past threat, but also the current one: the perception that scientists, in crossing what was divinely separated, were attempting to play God. The laws Moreau impresses upon his animal subjects, as a parody of the Ten Commandments, constitute for Prendick a “deification” of Moreau (Wells 123). In his vivisection experiments, Moreau determines to “make a rational creature of [his] own,” just as God did in the creation of man (130). Moreau, like Atherton, claims to match the intellect of God, asserting “I have seen more of the ways of this world’s Maker than you…I have sought his laws, in my way, all my life” and claiming that the drive for scientific inquiry is an “intellectual passion…strange, colourless delight,” echoing the passion of Christ (127). Certainly, Prendick’s story to the animals following Moreau’s death suggests the death and resurrection of Christ; the injunction that “he has changed his body…[to] watch [them]” from above resonates with Christian mythology of godlike resurrection (151).

Stevenson’s description of Jekyll, too, alludes to Christian mythology; in characterizing the shift from his own body into that of Hyde, Jekyll recalls a “trembling immateriality, the mist-like transience, of this seemingly solid body in which we walk attired,” alluding to the archetypally Christian division of body and soul. Jekyll’s ability to “pluck back that fleshy vestment” is itself a transcendence of his physical body with Christ-like powers (Stevenson 79). Stevenson describes Jekyll’s medicine as a “virtue,” illustrating the separation of body and soul as moral and thereby making Jekyll as the scientist an arbiter of morality (91). In Jekyll and Moreau, then, the 19th-century concern with science’s potential to displace Christianity seems validated by the characters’ Christ-
like qualities. The beetle and Sydney seem poised to perform a similar displacement, although through the resurgence of paganism within science rather than in science as a new religion unto itself. The figure of the scientist in the 19th century, as a figure who unifies opposites and acts with a Christ-like authority that contravenes the teachings of Christianity, becomes himself a sort of new Christ, ministering to an often fearful audience. The jump then from Christianity to Darwinism, as illustrated in the cartoon below, seems imminent; here science clearly becomes in and of itself a new religious form.

![Cartoon](https://example.com/cartoon.png)

This 1883 cartoon by John Heywood, captioned "Our National Church: The Aegis of Liberty, Equality, Fraternity", locates Darwinism among Britain's religious history, with Darwin as a new religious leader. Licensed under CC BY-NC-SA 4.0. Cropped and enlarged.
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**Images Cited**


JESSICA W. MACDONALD graduated from Huron University College in 2015 with an Honours Specialization in English Language and Literature. After working briefly in the financial sector, she is currently exploring her graduate-level education options with regard to an MBA or Masters of English.