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Refiguring George MacDonald: Science and the Realist Novel

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REFIGURING GEORGE MACDONALD:
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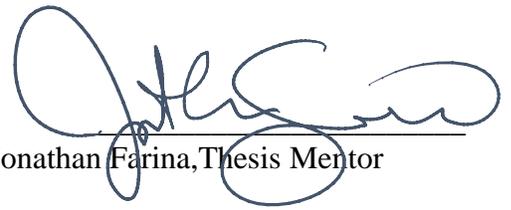
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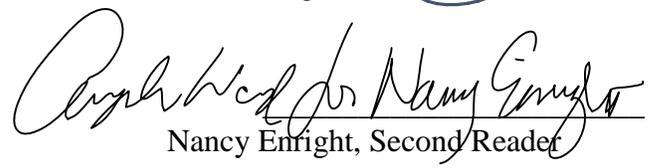
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Introduction

Less than a year after George MacDonald's death in 1905, Joseph Johnson published the first biography of MacDonald. Johnson's biography dwells on MacDonald's role as a novelist, which reveals his immediate posthumous legacy. This reception has shifted. Over the past three decades, MacDonald has been described as an explicitly Christian author while much of the criticism about MacDonald emphasizes his role as a fairy tale author and theologian. In response to the pigeonholing of MacDonald, my thesis aims to reposition his writings within the history of the realist novel through their engagement with science.

Why did George MacDonald jump off the radar? Why is MacDonald not studied as much today? One possibility is his overt Scottishness. His heavy use of dialect simply makes him hard to read, but the investment is fully worth the struggle and timely, given the attention to Scotland and Celtic figures in the past twenty years. Somewhat more insidiously and relevant for a Marxist understanding, his overt Scottishness may have been off-putting to the superstructure of English critical sensibilities in the early 20th century. After the series of uprisings in Ireland, non-English identities became more suspect, and as a result, Scottishness became more demure. Sir Walter Scott initially suffered a similar fate.

The fall-off of MacDonald's popularity also suggests something about changed attitudes towards science and literature. As C.P. Snow argues in *The Two Cultures*, the 20th century underwent a division "into two polar groups" (3) between science and humanities. As a writer trained in science at Aberdeen University, MacDonald's writings are influenced by his background and embody his interest in science. Because they engage with science, his novels are thus antithetical to this 20th-century change from a unified culture to the stratification between science and humanities. As it occurred, the erasure of MacDonald from critical analysis was neither unnoticed nor without lament. C.S. Lewis writes in his introduction to *George*

MacDonald: An Anthology that “I have never concealed the fact that I regarded him as my master; indeed I fancy I have never written a book in which I did not quote from him” (20). In W.H. Auden’s introduction to the 1954 combined reprinting of *Lilith* and *Phantastes*, he praises MacDonald’s “power to project his inner life into images, beings, landscapes which are valid for all,” which serve to make him “one of the most remarkable writers of the nineteenth century” (vi).

Because of MacDonald’s nuanced view of Christianity, his engagement with the epistemological doubts and anxieties surrounding scientific developments provides a useful counterpoint to the Muscular Christianity of writers like Charles Kingsley. MacDonald’s novels portray a panentheistic, non-institutional form of Christianity that resists reactionary attitudes. His novels stand between traditional religious faith and the anxiety, doubt, and skepticism that characterize modernity, but they emphasize the possibilities of human ingenuity and rational investigation. This thesis will examine *David Elginbrod*, *Lilith*, and *Alec Forbes of Howglen* as negotiations between public attitudes towards religion and scientific knowledge in a manner that moves beyond a presumed opposition between these categories. The object is to reorient MacDonald by analyzing how his novels respond to contemporary science and changing ideas about individuals and society. While describing and critiquing the compartmentalization of knowledge into discrete discourses and reactionary attitudes toward evolutionary theory and materiality, his novels praise the productive capability for scientific knowledge and vocabularies to understand and describe the relationship between God, nature, and the self.

This project has a predecessor in George MacDonald’s grandson, Greville MacDonald. Greville responded to Johnson’s biography of George MacDonald by writing his own in 1924. In this biography, *George MacDonald and His Wife*, Greville notes George MacDonald’s relationships with several writers and influential people from the period including F.D. Maurice,

Charles Kingsley, Lady Byron, Mark Twain, and Charles Dodgson, which qualifies Joseph Johnson's insistence that MacDonald's primary success was his appeal to a broad audience. Greville MacDonald reproduces several letters between George MacDonald and these figures to reinforce a view of MacDonald as heavily immersed in the intellectual environment of his time. MacDonald's later novels are highly concerned with contemporary social and political issues and not simply a form of nostalgic, adventurous storytelling. Critics like Geoffrey Reiter have begun to examine the presence of these elements. In "'Down the Winding Stair': Victorian Popular Science and Deep Time in 'The Golden Key,'" he argues that "The Golden Key" is shaped by newfound geological knowledge, a fact that is conveyed by the omission of an Old Man of the Air since the earth never underwent an air-only stage (Reiter 10).

David Elginbrod resists the portrayal of knowledge as a fragmenting force and stresses the web-like nature of nature, society, bodies, and minds. *Alec Forbes* portrays the clash between the qualitative folk knowledge represented by Annie Anderson and other country people and the informational, intellectual knowledge of urban dwellers like Mr. Cupples, who lives in the same boarding house as Alec and serves as the librarian at the school that he attends. Its autobiographical qualities indicate MacDonald's navigation of this modern dichotomy. The novel addresses these issues through references to the transitory unity of systems and the importance of cooperating elements. The development of the fairy-like Little Ones in *Lilith* into a more mature, organized, and adaptive society shows MacDonald's interest in evolutionary discourse and embracement of its implications for spirituality and teleology. Analyzing the engagement with science in MacDonald's novels will attest to the importance of refiguring this non-canonical yet highly important novelist. His writings creatively negotiate the perceived divide between the domains of religion and scientific, experimental knowledge in ways that have been ignored. This reorientation of MacDonald presents the possibility for continued discourse

on the range of responses of 19th-century writers to emergent discoveries and how science influenced their novelistic aesthetics and attitudes.

Beyond Productivity:

Natural Philosophy and Connectivity in *David Elginbrod*

As Alberto Gabriele observes in *Reading Popular Culture in Victorian Print*, “modernity” is “specifically (but not exclusively) in the period that witnessed the widespread affirmation of a fragmented but not less systematic organization of industrial production, visual perception, and social order” (2). In response to the fragmentation of knowledge and social structures in Scotland and England during the middle of the 19th century, *David Elginbrod* presents a non-dualistic approach to knowledge, society, and the self and stresses the interdependence of these categories. The fragmenting forces that the novel resists include an increasingly stricter division between fields of knowledge through the generation of specialized or discipline-specific discourses, a product-focused approach to education, and a perceived Protestant division of grace from nature, which the novel attributes to doctrines of election and *sola fide*. These social changes exploit the vulnerabilities ascribed to a fragile and fragmented modernity, which is demonstrated through Herr von Funkelstein, a character who easily deceives and entertains the middle and upper classes through performed séances, and the speaker at a “biology” lecture, a person who readily deceives the townspeople and claims to offer an understanding of “biology” for small lecture fees. This novel makes use of natural philosophy to resist this fragmentation and associated exploitation in two important ways.

The first way is through the novel’s laudatory evaluation of instruction in natural philosophy as complementary to an individual’s development. The novel rejects a utilitarian, product-based approach to the instruction of natural philosophy. In *Victorian Popularizers of Science*, Bernard Lightman brings attention to the rising concern expressed by thinkers like William Whewell that “the sciences were losing their unity, disintegrating” (22) just like “a great empire falling to pieces” (Whewell qtd. in Lightman 23). In response to the problems of

fragmentation, *David Elginbrod* proposes an instructive method of natural philosophy and mathematical subjects that aims for unity of self and knowledge, society, cosmological unity, and education over fragmented, rigidly divisive pedagogical methods.

As Lightman observes, “the first four decades of the nineteenth century” saw the rise of “popular science” works that were eventually released in a “cheap format” (23). According to Jonathan Topham, “the treatises arguably represented a nascent publishing form that would later be called ‘popular science’;—a form that publishers were very soon to find highly numerative” (Topham qtd. in Lightman 23). Lightman references the Bridgewater Treatises and explains that these works were from the beginning supposed to argue for the “Power, Wisdom, and Goodness of God, as manifested in the Creation” (Kirby qtd. in Lightman 23). *David Elginbrod* participates in this (economically profitable) movement but argues for an even less rigid division between God and nature than that which occasioned these natural theologies.

The second form of resistance against fragmentation is that the language and explanatory models of science and mechanics are used aesthetically to describe the interdependence of interiority, social institutions, nature, and their interrelations. These instances of scientific language include thoughts described as an “electric flash” (2: 134); a woman “naturally disposed to somnambulism” (3: 212); “the nervous element” (3: 206); “nerves of the human body” (3: 206); “nervous gear” (1: 146); the mind and body as a “machine” with “thinking wheels” (1: 146); the mind as a “steam-engine” (2: 29); “nerves of the human body” (3: 206); hallucinations resulting from an “overwrought brain” (2: 85); numerous allusions to associationalism with thoughts described as “links in the chain of ideas” (2: 134); “brain;” “nervous system” (2: 184); “photo-materialist” (2: 326); “natural laws” (3: 206); though phrenological, an allusion to the frontal lobes as “two foremost bumps” (3: 339); the “Baconian method” (2: 173); “psychological, social, literary, and scientific receipts” (2: 125); an ongoing critique of

spiritualists' misuse of terms like "biology" and "electricity;" the "elasticity" (1: 129) of muscles; and a description of bodily affect through reference to anatomy as David's "hm" that is uttered through "closed lips and open nasal passage" (1: 88). A scientific idiom inflects the novel's portrayal of character and sociality.

As John Kucich observes in "Intellectual Debate in the Victorian Novel: Religion, Science, and the Professional," the Victorian novel tends to be "predominantly a novel of domestic manners, not a novel of ideas" (Kucich 107). On the other hand, "intellectual debates informed Victorian fiction so powerfully that it would not be inaccurate to say that those debates governed both the form and the substance of the genre" (107). *David Elginbrod* is such a novel. It is preoccupied with ideas like the interdependence of the self, society, the environment, and the respective interpretative gestures of religion and science to make sense of the world. This interdependence is proposed as a key to the fragmentation of modern society and the answer and guiding principle for scientific instruction and intellectual attempts to understand nature.

In *David Elginbrod*, MacDonald proposes a panentheistic view of God and draws upon Neoplatonism and German Romanticism through writers like Schiller and Schleiermacher. MacDonald's theology is akin to what Robert Richards describes in *The Romantic Conception of Life* as the English response to *Naturphilosophie*, which moved beyond the "*dynamische Evolution*" of Schilling and Goethe, a theory that "explained the appearance of archetypal variations in nature as a consequence of gradual development, or evolution, which instantiated ideal forms" to the English "relocat[ion] of archetypes in the Divine mind and their appearance in nature as the result of God's creative activity" (10). MacDonald's heavy involvement in a non-proselytizing, non-institutional form of Christianity separates him somewhat from the political pressure that "thinkers like Joseph Henry Green and Richard Owen" experienced due to the "risky charges of irreligion" (10). MacDonald's faith in God, a God that includes nature but

extends beyond nature, seems to be genuine, which is why his worldview can be neither categorized as strictly pantheistic nor theistic. The appellation of panentheism, a God that includes nature and a notion of God as extending beyond that, most accurately describes MacDonald's belief in God.

MacDonald places this panentheistic view of God at odds with a perceived Protestant division of grace from nature. By arguing that God includes nature, he prizes the importance of natural philosophy and the intellect over and against this division. As Margaret explains, speaking as the apostle for her father, David Elginbrod, "if ever anything looks beautiful or lovely to me, then I know at once that God is that" (2: 224). This statement adopts a Platonic view of nature. God can be found in what is good, beautiful, and true, and nature is a place where all three of these things can be located. The narrator laudably notes Wordsworth's "Christian Pantheism," the "soul" of his poetry, as "being beyond [the] comprehension" (1: 86) of Hugh at that point in the narrative.

Characters like Mrs. Appleditch display the shortcomings of a Christianity that sees a sharp division between grace and nature. Towards the end of the novel, *David Elginbrod's* protagonist, Hugh Sutherland serves as a tutor to her children who are aspiring Reformed ministers. The narrator describes Mrs. Appleditch as a woman who "considered reason as an awful enemy to the soul, and obnoxious to God, especially when applied to find out what he means when he addresses us as reasonable creatures" (3: 148). Since reason is divorced from the soul in this model, this Reformed view on reason is dualistic. The novel's critique of the epistemological implications concerning total depravity stresses Reformed Christianity's role in the disunity of the individual.

The roots of Calvinism in Scotland run deep. Essentially and operationally independent from the Church of England, the Church of Scotland's investment in Calvinism was stronger

than that of the Church of England and other English Christian movements, which entertained a variety and admixture of views on the role of free will and grace ala Arminianism. Arminianism failed to achieve a notable presence in Scotland. Calvinism dominated Scottish society in numerous ways. One of the key features of Calvinism is a belief in the total depravity of individuals. In this model, individuals have free will but are utterly dependent on the free grace of God to elect people to salvation. With this view, the knowledge and experience derived from the intellect is suspect and cannot lead to salvation. As grace emerges from some point beyond experience and knowledge, this feature distinctly divides grace and nature. Only divine intervention can lead to salvation, not direct experience of nature or the world. K. Theodore Hoppen's *The Mid-Victorian Generation 1846-1886* chronicles the "mid-century decline of strict Calvinism," though he notes that "in England the chief attack was mounted by theologians with liberal inclinations" while "in Scotland Calvinism was undermined by Evangelicals who stuck closely to Biblical literalism and a belief in eternal punishment" (448). Unlike the majority of Scottish anti-Calvinists, MacDonald argues against Calvinism from the perspective of a liberal Christianity.

Hugh resists Calvinism, which is understood by the text to condemn naturalistic enquiry a priori due to the consideration of human reason as fundamentally untrustworthy and depraved. Calvinism moves beyond Lutheranism and broad Anglican conceptions of the role of free will by arguing that depravity affects all expressions of will, even in matters beyond salvation. In response, the non-division between humans, nature, and reason is reinforced through Hugh's commitment to growing a beard. MacDonald places Hugh's panentheistic view of God in collision with Calvinism, represented by Mrs. Appleditch. She objects to Hugh's beard on the grounds that "it is a shame for a man to let his beard grow like a monkey" (3: 165). Her remark reveals Victorian anxieties about Darwinism. She fears the uncanny encounter of Hugh with

features that remind her of a monkey and thus her own origins. Hugh defends his beard by saying that “the Apostles themselves wore beards” and that “there is nothing dirty about them” (3: 166). This observation recalls the narrator’s earlier reference to Schiller, which is that “death cannot be an evil, for it is universal” (Schiller qtd. in MacDonald 3: 138). Hugh’s beard cannot be evil because it is natural and universal to humans. Its lack of a purpose does not detract from its importance. The pressure placed upon Hugh by Mrs. Appleditch to professionalize and fulfill the role of a tutor to her sons causes him to quit his appointment. The narrative rewards Hugh Sutherland for this action through the benefaction of Robert Falconer, a gentleman, amateur detective who enables Hugh to recover a stolen ring that belonged to Hugh’s former employer. Falconer provides Hugh with the pecuniary means to pursue this object and continue his novelistic pursuits.

Like Hugh’s beard, the novel resists the idea that education and knowledge are useful only insofar as they contribute to some sort of economic production. Hugh’s beard represents a negative type of economic production—by not having a beard, Hugh can look respectable and present himself more professionally, which would conceivably aid him in securing students and finding more of them through character references. His choice to accept what is natural, his beard, represents the artificial vanity of an economic order that seeks to divide individuals from their natural selves and bodies as much as from the animal world.

Instead of placing an emphasis on productivity, the novel argues in line with Newman and Arnold’s claims for liberal education and “culture,” respectively, that education and knowledge are pursuits that should be universally, unconditionally inherited by a nation’s citizens without emphasis placed on the usefulness of these fields for economic production. For example, the titular character of *David Elginbrod* is a man of science par excellence and stands for the proper orientation of human subjects to education. Because his education at fifty-five

lacks practical results, he stands for the importance of acquired knowledge beyond utilitarian and economically profitable ends. The instruction in mathematics and literature that Hugh provides to David Elginbrod does not grant David the means to improve his social position or become a better worker. The closest feature to a utilitarian purpose that David's education provides is that he might learn the principles behind the mathematical functions that he performs as a "bailiff" (1: 14) for his master, William Glasford, but simply understanding these principles does not presumably help David perform his job any better.

Hugh's instruction of David Elginbrod mirrors the rise of public education through societies like the Society for the Diffusion of Useful Knowledge (SDUK). In *Useful Knowledge*, Alan Rauch discusses the growth (and demise) of this society and others like it. The SDUK published works meant to increase public knowledge for the sake of social improvement. Rauch notes that "*useful knowledge*" meant "contentious knowledge" (41) and was connected to the Whigs' party platform of an "interest in education and the dissemination of knowledge" (41). He further explains that the society "may not have been aware of the problematic nature of such terms as *useful*" (41) since the instructional materials contained information that moved beyond mere material for becoming better workers. This irony illustrates just how ingrained was this association between public education and utility. Even with aims beyond simply making people better at their jobs, this society employed the term "useful" as an attempt to justify its project.

This democratic view of education runs counter to two observations that Jim Endersby makes about Victorian education in *Imperial Nature*. The first observation is that education partially arose to "ensure that the masses...would behave as the responsible citizens they now were" (277). Furthermore, geography achieved greater recognition over the 19th century because of its connections to empire. Mr. Arnold, the father of Hugh's second pupil, Harry Arnold, demonstrates this tendency. The narrator describes Mr. Arnold as having "a weakness for

geography” (2: 37). Upon learning that Hugh has provided no geographical instruction to Harry, Mr. Arnold expresses consternation and insists that “[a] thorough geographical knowledge is essential to the education of a gentleman” (2: 38). This sentiment conflates commerce and conceptions surrounding the necessary elements of a gentleman’s education. As a man of business, Mr. Arnold represents a view of geography’s importance as connected to gentlemanly attributes and the support and knowledge of imperial endeavors. Geographic knowledge’s usefulness emerges from its perceived connections to commerce.

MacDonald’s novel resists this utilitarian perspective on learning by presenting an alternative model of education that locates the learning experience within the self and the self’s interaction with its external environment. The material products of an education, the external productions of individuals like Hugh and his poems, are deemphasized without deemphasizing the materiality of subjects, particularly their minds, those “thinking wheels...driven by nervous gear” (1: 146). While recognizing the materiality and mechanicality of thoughts and the human mind, the narrative portrays the human subject as transcendent and beyond interpretation. Concerning Hugh’s poems, the narrator observes that “what a man has produced, is not what he is. He may even impoverish his true self by production” (2: 136-137). In other words, individuals should not be judged by their productions, and the very creation of products is seen as a form of impoverishment, which places the economic system on its head. What rises in its place is an elevated sense of the individual and interiority placed over and above production. Production is paradoxically a form of “impoverish[ment].” This quotation reinforces the idea that the benefits of education are not limited to products, and the human subject is not limited to what he or she can produce. In short, capitalism and utilitarianism, not “science,” is to blame for social fragmentation in this novel.

This concern for the preservation of the individual and a belief in knowledge for knowledge's sake is well-embodied in Matthew Arnold's valorization of Hellenism over Philistinism. In *Culture and Anarchy*, Arnold identifies Philistinism and Hebraising as a "narrow conception of man's spiritual range and of his one thing needful" (15), which is salvation. Instead, Arnold argues, "salvation" consists of a "harmonious perfection only to be won by unreservedly cultivating many sides in us" (16), a view that he aligns with Hellenism. As a bailiff and committed adult learner who experiences no external benefit from learning, David Elginbrod embodies this conception of a well-cultivated individual who finds peace and salvation through the development of his many sides. Hugh Sutherland, a tutor, lover, aspiring poet and novelist, improves through his attention to his own many sides. This many-sided development allows him to help others. He does not merely improve through becoming more religious or strictly adhering to any one goal in life.

If the human subject is not limited by external realities yet is not a soul in isolation, being influenced by material conditions while still retaining interiority, where is its place? *David Elginbrod* thematically explores this question and uses the aesthetics of scientific language to study the individual in connection with one's external environment and social experience. The inability of human subjects to overcome their materiality and dependence upon social institutions, environments, and accidents, the "links in a chain" that shape personalities (2: 134), is reinforced by the narrator's observation that "a great many of our dislikes, both to persons and things, arise from a feeling of discomfort associated with them, perhaps only accidentally present in our minds the first time we met them" (3: 231). This latter element corresponds with the psychological theory of associationism, which had a number of supporters at this time. The attention that is paid to the self's dependence upon external reality, particularly one's social role, is consonant with most 19th-century fiction.

David Elginbrod lies within this literary vein of self-exploration in relation to one's social role and uses mechanical language to describe this relationship. Early in the narrative, Hugh's recognition of society and nature as a respective web and machine brings him enormous discomfort. The narrator describes how a "horror" falls on Hugh when he considers that "the mighty All of nature should be only a mechanism" (3: 179). Likewise, when Hugh arrives in London, he sees the interconnection of human beings, the "whole mass...bound together, interwoven, and matted, by the crossing and inter-twisting threads of interest, mutual help, and relationship of every kind" and "soon [finds] how hard it was to get within the mass at all" (3: 51). Before Hugh can move towards an appreciation for the interconnectivity of life and self-recognition as a part of nature, he must first go through a painful sensation of isolation from the world and ignorance about his role in society. He must learn to stop worrying and love the machine.

This attention to the interconnectedness of life matches with the aesthetic use of scientific language in Walter Pater's "Conclusion" to *The Renaissance: Studies in Art and Poetry*. Pater describes the interconnectedness of elements and the movement of natural forces.

Like the elements of which we are composed, the action of these forces extends beyond us: it rusts iron and ripens corn. Far out on every side of us those elements are broadcast, driven in many currents; and birth and gesture and death and the springing of violets from the grave are but a few out of ten thousand resultant combinations. That clear, perpetual outline of face and limb is but an image of ours, under which we group them — a design in a web, the actual threads of which pass out beyond it. (152-153)

Although individuals are never granted more than "a design in a web," some subset of a greater unity that extends to "the actual threads" that "pass out beyond it," individuals can recognize

these forces in small designs. On the other hand, this recognition is transitory, for “it is with this movement, with the passage and dissolution of impressions, images, sensations, that analysis leaves off” (154). Pater argues that “to burn always with this hard, gemlike flame, to maintain this ecstasy, is success in life” (157).

Hugh Sutherland comes to appreciate the flickering, web-like connectivity of life. The thought of being just part of a larger web of connections comes to serve as a fruitful, hopeful idea.

How many things which, at the first moment, strike us as curious coincidences, afterwards become so operative on our lives, and so interwoven with the whole web of their histories, that instead of appearing any more as strange accidents, they assume the shape of unavoidable necessities, of homely, ordinary, lawful occurrences, as much in their own place as any shaft or pinion of a great machine!
(3: 120-121)

Rather than lamenting a loss of a Romantic self into the void of chance relations, the narrator embraces the absorption of the individual into a larger web of connections. MacDonald places this viewpoint above what Richard Cronin describes as Romantic Victorians’ qualified appreciation for the German Romantic conception of the “omnipotent and isolated will” as represented by figures like the titular character of *Arthur Coningsby* by John Sterling when he “falls under the spell of Kreuzner, the German metaphysician” (219). The individual is thus recognized as transcendent not because of the transcendence of the self (or if so, just partially) but also due to the interdependence of one’s identity, material existence within an environment largely beyond individual control, and social relationships. The human subject is described as operating within a larger framework and achieving purpose within a “great machine” as a “shaft” or “pinion” (3: 121). A person’s own thoughts are dependent on “thinking wheels” that are

driven by “nervous gear” that have the ability to arrive at the “minute accuracies of a steam-engine” (1: 146), all of which suggest a cooperation of elements.

This framework is not a stable, complete process. It depends on these “unavoidable necessities” (3: 121). Gillian Beer argues in “The Reader’s Wager: Lots, Sorts, and Futures” that the Victorian period was attuned to the challenge that evolution places on the design argument, which was a “period when evolutionary theory was making classification itself a narrative of change rather than an enduring system of types but when patterns of genetic inheritance had not yet been established” (276). A seeming disconnect existed between the second law of thermodynamics, which holds that “entropy (disorganization) tends to a maximum” (276). On the other hand, the period began to see that “variation is the medium of radical change” (276).

Future patterns therefore became difficult to descry. The new theories unsettled knowledge of the past and prediction of the future. Instead of constant rediscovery of stable norms the future became irregular, chancy, peopled by speculative types whose relation to the present might repeat and extend the scandal of our relation to other earlier species (276)

MacDonald’s novel accepts this reality of chance. He allots for chance and accepts that their existence is “as much in their own place as any shaft or pinion of a great machine” (3: 121).

Beyond mechanical language, *David Elginbrod* uses the language of electricity, botany, and optics to describe the characteristics of the self and its relationship to society. This language appears especially during descriptions of learning experiences, which reinforces MacDonald’s preoccupation with the non-division of human knowledge and the universalizing importance of science. During her private education with Hugh, Maggie feels as if the overcoming of pedagogical difficulties is like a “light” that “flashe[s] upon her” from “her own lucent nature” (1: 105). Elsewhere, Hugh feels as if “his spirit flash[es] in the lightning” (2: 112) of a storm.

Language of interdependence is used throughout. Associationism is explored through the language used to describe workings of the mind. Thoughts are consistently spoken of as a physical process that occurs through the interdependence of ideas, the “strange association of ideas” proceeding like “slender” “links in a chain” upon which the “electric flash of thought” is said to proceed (2: 134). Hugh’s poems are described as the “cobwebs sprung from his own brain” (2: 136) which not only brings attention to Hugh’s initial failure as a poet (though he later becomes a well-received novelist) but also recalls the language of connectivity and formed associations.

These recurrent descriptions of the human mind as a series of associations parallel the 19th-century shift from novels with a single plot and one perspective to novels with multiple plots and interlocking timelines. In *The Novel and the Police*, D.A. Miller discusses the reification of the trifle. He observes that “the ‘genetic’ organization of narrative allows the significant trifle to be elaborated *temporally*: in minute networks of causality that inexorably connect one such trifle to another” (Miller 30). The fact that this novel is called *David Elginbrod*, a character who appears only in the first book of the novel, demonstrates the emphasis that this novel places on the interdependence between human behaviors and identities with seeming trifles. A seeming trifle, this character who only appears in the first few chapters of the novel drives all future action. Hugh’s short-term tutoring appointment with the Turriepuffit family for whom David Elginbrod works begins a lifelong journey of self-discovery beyond the knowledge provided by his studies at a university.

Because trifles are reified in *David Elginbrod*, the division of natural philosophy into discrete categories, specialized discourses, is shown to be insufficient, which serves as a commentary on the stratification of discourse over the 19th century. Foucault notes the following about commentary in *The Birth of the Clinic*.

Commentary questions discourse as to what it says and intended to say; it tries to uncover that deeper meaning of speech that enables it to achieve an identity with itself, supposedly nearer to its essential truth; in other words, in stating what has been said, one has to re-state what has never been said. In this activity known as commentary which tries to transmit an old, unyielding discourse seemingly silent to itself, into another, more prolix discourse that is both more archaic and more contemporary—is concealed a strange attitude towards language: to comment is to admit by definition an excess of the signified over the signifier; a necessary, unformulated remainder of thought that language has left in the shade—a remainder that is the very essence of that thought, driven outside its secret—but to comment also presupposes that this unspoken element slumbers within speech (parole), and that, by a super-abundance proper to the signifier, one may, in questioning it, give voice to a content that was not explicitly signified. (Foucault xvi)

Without arriving in the straits of a nihilistic epistemology in which language can communicate nothing, the novel provides a “commentary” on the deepening divides between the discourses of naturalistic inquiry by demonstrating that the trifling details of one field are useful for another, especially for instruction. This assumption of integration was common to 19th-century scientific writing. Mary Somerville’s *The Connection of Physical Sciences* from 1834 stresses that “in all [sciences] there exists such a bond of union, that proficiency cannot be attained in any one without a knowledge of others” (3). The nineteenth century persistently reattained the importance of the unity of knowledge, even while the creation of specialized discourses challenged translatability between fields.

During his instruction of Harry Arnold, Hugh teaches him how to measure the height of the Arnolds' ancestral home by using a quadrant. Rather than splitting Harry's education into discrete categories, Hugh uses this moment to teach geography, geometry, and architecture simultaneously. The benefits of this pedagogical method are displayed through Harry's transformation from a boy with hypochondriac fears and an incessant desire to consume books without retaining anything, bound to merely finishing every word in a text, to a bright pupil with a unified perspective and authentic desire for knowledge. This authenticity is communicated by the deal that Hugh strikes up with Harry. Hugh agrees not to teach Latin to Harry until Harry personally asks Hugh for Latin lessons. By baiting Harry with the story of Caesar's assassination and "filling up the account with portions from Shakspeare" (2: 26) Hugh skillfully utilizes the intersection of England's literary history and Classical history with Latin instruction to garner Harry's interest.

The educational methods espoused throughout *David Elginbrod* provide individuals with more than just self-development: these methods provide people with the ability to resist false and potentially exploitative approaches to naturalistic inquiry. MacDonald's novel underscores the exploitative possibilities of education through parasitic individuals and organizations with purportedly populist aims. The Herr von Funkelstein is such a person, and the spiritualist movement to which he belongs falls under this category. Masquerading as a charitable enterprise, the "biology" lecture that Hugh attends while tutoring Harry Arnold draws in the public by marketing its project as a lecture for the public.

"Biology" and spiritualism are further criticized through two objections that the text broaches towards the subject, the first blatantly and the second obliquely. The first objection is the religious consideration that even if spiritualism is real, spiritualism only affords contact to the lower souls who are degenerately attached to the "putrifying remnants" of their bodies and thus

represent the “canaille of the other world” (3: 175). These “canaille” cannot provide any worthwhile knowledge, especially spiritual knowledge. Mrs. Elton, a highly religious, Reformed Christian and relative of Mr. Arnold, finds solace in spiritualism because she sees spiritualist enterprises as confirmed “Spiritual Manifestations” of “another world” and “corroboration” of “Sacred Writ” (2: 211). The bankruptcy of these spiritual canaille is communicated through their banality. Spiritualism is not seen as a source or type of change but rather reinforces orthodox religiosity, which allows for Mrs. Elton to feel even more comfortable in her misguided Christianity.

The second objection to spiritualism is materially grounded: spiritualism relies on a misapplication of “the true Baconian method” (2: 173), as the con man, Herr von Funkelstein, refers to it. The heading of Chapter VIII in Book 1 introduces this novel’s interest in scientific inquiry by quoting Bacon:

It is the property of good and sound knowledge, to putrifie and dissolve into a number of subtle, idle, unwholesome, and (as I may tearme them) vermiculate questions; which have indeed a kinde of quicknesse, and life of spirite, but no soundnesse of matter, or goodnesse of quality. (Bacon qtd. in MacDonald 1: 92)

The spiritualist movement and von Funkelstein fall under Bacon’s critique of speculation that arises from reputable sciences by asking questions that lack “soundnesse of matter” and “goodnesse of quality.” The lecturer’s talk on “biology” (2: 117) and Hugh’s personal discussion with von Funkelstein afterwards, who claims to have superior knowledge of “physico-psychological phenomena to which the name of spiritualism has been so absurdly applied” (2: 170) and the ability to improve Hugh’s understanding of so-called biology after the exploitative lecture, demonstrates this parasitic dependency of spiritualism on a convoluted understanding of natural philosophy and first principles. Herr von Funkelstein describes the Baconian method as

“to inquire first what the thing is, by recording observations and experiments made in its supposed direction” (1: 173). Since only the “observations and experiments” that are “made in” the “supposed direction” of one’s inquiry are recorded, such an exposition of the scientific method allows for bias and willful tampering with results. This approach allows for observations and experiments to be discarded that do not align with one’s desired results.

However, Robert Falconer, the private gentleman-detective that aids Hugh in capturing von Funkelstein, champions a rational approach to scientific inquiry. When Robert Falconer and Hugh begin their investigation of the count, Robert tacitly raises this second objection to spiritualism’s self-proclaimed utilization of the scientific method. After Hugh explains Euphra’s connection to the count, Robert Falconer remarks that he now has “material out of which to construct a theory” and that only now can he “make inquiry upon the theory” like “Lord Bacon says” (3: 176). Falconer starts with facts before beginning his inquiry and formulating a theory. Thus, Falconer translates what might otherwise be deemed “trifles” into the respectable and valuable (because integral) form of “facts.” The facts that Hugh provides to Falconer about Euphra’s connection to the count allow for the count’s eventual discovery. Caught in the web that he creates through his own crimes, von Funkelstein is indicted by these facts.

Portraying an acute awareness of social changes during this period, *David Elginbrod* maturely resists economized education, the misuse of natural philosophy, the modern sense of separation and disunity, and the increasingly fragmented approach to knowledge without displacing developments in natural philosophy in order to return to a romanticized past. By partially placing the blame on Christianity itself for propagating an unproductive division between grace and nature, MacDonald moves beyond useless nostalgia and embraces his historical moment, though with qualified reservations. The appearance of vocabularies borrowed from science displays MacDonald’s brazen endorsement of naturalistic enquiry, and their

particular use as a way to describe networks, webs, links, and chains provides fertile metaphors for thinking about individual relationships to social roles. This novel serves as a useful model for how literary culture responded to 19th-century social changes like the rise of an educated public and a mechanical, materialistic approach to studying humans and their relation to the world.

Dissected Unities and Reactionary Plagues:

An Anatomy of the Scottish Public and the Individual in *Alec Forbes*

Robert Wolff's *The Golden Key: a Study of the Fiction of George MacDonald*, published in 1961, argues that *Alec Forbes of Howglen* is autobiographical. Regardless of the absolute truth value of this claim, which has been replicated by subsequent critics like Richard Reis, *Alec Forbes* provides a magnified view of a village, Howglen, which corresponds greatly with the ancestral location of the MacDonald clan in Huntly, Aberdeenshire. Because of this correspondence, *Alec Forbes* is useful for considering MacDonald's possible motivations for writing about the benefits of science and a generalized, scientific education. The novel likewise offers the chance to understand the humble environment that shaped one of the 19th century's most popular novelists.

Alec Forbes calls attention to public hysteria against scientific enterprises and continues a concern with the unity of knowledge and positive potentials of scientific pursuits. Published in 1865 just after *David Elginbrod*, *Alec Forbes* is the second of MacDonald's realist novels and is set "early in the century" (1: 68). The novel occurs from multiple points of view, which include the perspective of Annie Anderson, an orphan, and the story's titular character, Alec Forbes. Alec Forbes is the son of a struggling widow who owes several hundred pounds to Mr. Bruce, Annie's irresponsible caretaker. Mr. Bruce, a shopkeeper, embodies the encroachment of consumerism on this humble town. Mr. Bruce's self-identification as a descendant of Robert the Bruce indicates MacDonald's move beyond mere xenophobia and an elevated romanticism for all things Scottish. MacDonald breaks from romanticized depictions of Robert the Bruce by casting his supposed descendant as a despicable character. Despite the novel's use of a Scottish dialect, the novel consistently portrays a qualified appreciation for a Scottish identity, especially through its critique of Scottish religious practices. English customs are only occasionally seen as

an invading menace, like the rising use of the “cane” (1: 204) in schools over the traditional taws. The foremost institution criticized by MacDonald is Christianity. Presenting a thoroughly Romantic view of spirituality, the novel stresses the importance of direct, mystical experience, which includes encounters with nature.

Due to this appreciation for the vivifying experience of nature and sensations, this text continues *David Elginbrod*'s concern for the unity of knowledge and the unity between God and nature. The narrative condemns the Calvinism of proselytizing missionaries and the more institutionalized Calvinism of the Church of Scotland. This disdain for Calvinism's perceived disjuncture between grace and nature appears in Thomas Crann's outing of Robert Bruce at a church meeting. Just before he dies, the minister of the town, Mr. Cowie, gives Annie Anderson his Bible with a five-pound note enclosed. When Annie returns home to the Bruce family, Mr. Bruce locks away her Bible in an inaccessible room. Seeking to gain more customers, Mr. Bruce decides to become a church member of the missionary sect, which is led by Mr. Turnbull. After service one day, he invites the church members to come to his home after the service for a Bible reading. Thomas Crann, a stone-mason who befriends Alec and Annie, observes Mr. Bruce pocket a crumpled piece of paper when he opens the Bible, which is the five-pound note. This little detail reemerges as Thomas conceives some way to remove the church membership of Mr. Bruce so that Annie might feel more comfortable joining. When Thomas brings up the issue at the church meeting eighteen months later, Mr. Turnbull objects. Thomas responds to this objection as follows.

I haena dune yet. And whaur wad be the place to discuss sic a question but afore a' meeting o' the church? Ca' ye that the public, sir? Wasna the church institute for the sake o' discipleen? Sic things are no to be ironed oot in a hole an' a corner, atween you and the deycons, sir. They belong to the haill body. (2: 278)

Thomas disagrees with the hierarchy embodied by deacons and the division between church and public affairs. He insists on the importance of this “hail body” coming together “for the sake o’discipleen” instead of the hierarchy dealing privately with the issue. Thomas’ view, which wins over the congregation and subdues Mr. Turnbull, presents the necessity of a democratic forum, a place where moral issues cannot be swept away as improper and dealt with by a select few. The text critiques the notion that church should be separate from other areas of life and simultaneously affords a respect for what people can do when they openly work out issues. This respect shows a desire to move beyond Scottish factionalism, which is embodied in Scottish novels such as the struggles of Walter Scott’s Henry Morton in *Old Mortality*. As in Morton’s situation, the factionalism of competing Christianities threatens Annie and the integrity of Howglen’s community. Though she recognizes the kindness of Mr. Cowie, Annie desires the less hierarchal structure of the missionary church that is led by Mr. Turnbull.

A belief in the capabilities of cooperation is tempered by a cynical awareness of mob mentality. The townspeople who live in the unnamed, “new town” (2: 190) where Alec leads his studies develop grave suspicions concerning the role of the university community and its complicity in disinterment.

A panic seized the townspeople in consequence of certain reports connected with the school of anatomy, which stood by itself in a low neighbourhood. They were to the effect that great indignities were practised upon the remains of the *subjects*, that they were huddled into holes about the place, and so heedlessly, that dogs might be seen tearing portions from the earth. What truth there may have been at the root of these reports, I cannot tell...what pushed the indignation beyond the extreme of popular endurance, was a second rumour, in the consternation occasioned by which the whole city shared: the *resurrectionists* were at their foul

work, and the graveyard, the place of repose, was itself no longer a sanctuary! (2: 117)

The fears of the townspeople embody two impulses. The first is the fear of commoditized bodies. What “push[es] the indignation beyond the extreme of popular endurance” is this “second rumour” that the school had been “contenting themselves with asking no questions about the source whence the means of prosecuting their art was derived” (2: 117). The narrator notes that the administrators at the school may have been “guilty of indifference,” but the greater blame lies with the “many a poor creature who would have sold his wife’s body for five pounds” yet are nonetheless “ready to tear a medical student to pieces on the mere chance that his scalpel had touched a human form stolen from the sacred enclosure” (2: 117). Furthermore, the townspeople do not know who to blame. Alec, the hardworking, aspiring physician, is blamed without reason. The public is presented as illogical, reactionary, and innately suspicious of intellectuals. More likely, the “culpable carelessness of the servants” (2: 117) is to blame for the hastily disposed of bodies, which are presented as a possible source for the rumors.

The second impulse emerges from a fear of death. Human anatomy reminds the townspeople of their mortality. The fear of the scalpel embodies a fear of the body’s permeability. As Jessie Reeder notes in “Broken Bodies, Permeable Subjects: Rethinking Victorian Women’s ‘Agency’ in Gaskell’s *North and South*,” works like *North and South* present womanhood as “fundamentally permeable” (par. 6). She further argues that “the novel is littered with remarkably fragile female bodies that serve a political goal of exposing pollution, suffering, and inequality” (par. 6). Broken down to their fundamental elements, bodies exposed to scalpels represent the body at its most vulnerable. The vulnerability of corpses indicates the townspeople’s own permeability. As with Gaskell’s female bodies, the townspeople’s fears might be understood as a fear of the feminine. The only cadaver explicitly described in *Alec*

Forbes is a female. Alec's feud with his school rival, Beauchamp, begins because Beauchamp insinuates the sexual licentiousness of the dead woman.

While the text praises the ability of science to understand the world and the nobility of scientific pursuits, the respect for science and a physician's art is qualified. Mr. Cupples warns Alec about the danger of "com[ing] to regard a man as a physical machine, and so grow a mere doctoring machine itself" (2: 271). This attitude is problematic from a modern perspective, for humans are naturally physical machines. On the other hand, this quotation embodies the same liberal notion argued earlier about the roles of characters in *David Elginbrod*, which is that MacDonald does not see a person's value as limited to just one role or position in society. Just like Hugh Sutherland in *David Elginbrod*, a tutor and aspiring novelist, or David Elginbrod, an aged bailiff but secretly passionate scholar with a rich inner life, Mr. Cupples and Alec Forbes fluidly adopt many roles. Despite his long education then practice as a surgeon on a whaling ship, Alec Forbes decides to become a gentleman farmer after all. Likewise, as a librarian, amateur scientist, anatomist, and trenchant then reformed alcoholic, Mr. Cupples resists the easy identification of any dominant role. He achieves purpose through the existential value that he attaches to his duties as a librarian. Mr. Cupples shows that one can be a hero without practicing a traditional kind of morality that merely avoids vice. Alcoholics can do moral things, and despite their socially perceived challenge to traditional religion, scientists also do moral things.

The fear of the scalpel responds to this modern view of the anatomized and atomized individual. Like the modern view of the individual as composed of many diverse elements who need not stay within any one, fixed, God-given role in life, the scalpel indicates the divisibility of humans. People are not neat, seamless unities. Rather, humans are composed of organic, changing, inevitably decaying insides that work together for an indeterminate amount of time before dissolving into disparate elements. Even the unity that living minds and bodies seemingly

present is transitory. Throughout their lives, humans may take on different roles, change tastes in manners and foods, change behaviors, and become better people or the inverse. The scalpel presents a challenge to essentialist notions of the individual. Individuals are nothing but neat as old models would have it: they are made up of insides that would preferably be left unseen by most people. Bodies are composed of separate elements that make up a greater unity, but this unity exists through an evolving state of flux.

Thomas and Mr. Malison further reinforce this image of individuals as dynamic, non-static entities. The narrator observes that “Thomas’ mind was a rendezvous for all extremes. In him they met, and showed that they met by fighting all day long. If you knocked at his inner door, you never could tell what would open it to you—all depending on what happened to be *uppermost* in the wrestle” (1: 186-187). Though a mere stone-mason, Thomas’ attentiveness to detail allows him to ouster Mr. Bruce from the kirk’s membership. Thomas serves as the moral guide for all members of his town despite his frequent ill temper and disregard for institutional norms. His natural refusal to fit within the expectations of an artisan leads to greater justice and wholeness for Howglen’s community.

Mr. Malison, the schoolteacher of Howglen, also resists his role. Despite his authoritarian demeanor in the classroom throughout most of the story, Mr. Malison is repeatedly defended by the narrator as not altogether immoral, and he is redeemed by his growing affection for Truffey, a boy that he had accidentally crippled during an instance of corporal punishment. During a great flood that kills Tibbie, an old, blind friend of Annie’s while they lie in bed together for warmth, Alec and Mr. Malison both redeem themselves through their heroic attempts to save other lives. Since Tibbie and Annie are trapped in a cottage with no roof, Alec risks his life by paddling a boat into the cottage in an attempt to save Tibbie and Annie, though only Annie is successfully

rescued. Mr. Malison dies in his attempt to rescue Truffey from the crumbling bridge, and “their bodies were never found” (2: 106).

Even much before his redemption, the narrator insists that “Mr. Malison was not a bad man” (1: 197). Mr. Malison is not bad when he refuses to fulfill the assumed role of a disciplinarian. He suffers from a split between two halves of his life. Outside the school and not long after a scuffle caused by Alec standing up to Mr. Malison’s excessive discipline, he meets with Alec at a bridge, and Mr. Malison tries to learn more about Alec.

I shall not have to show much more than half of Mr. Malison’s life—the school half, which, both inwardly and outwardly, was very different from the other. The moment he was out of the school, the moment, that is, that he ceased for the day to be responsible for the moral and intellectual condition of his turbulent subjects, the whole character—certainly the whole deportment—of the man changed. he was now as meek and gentle in speech and behavior as any mother could have desired. (1: 157)

Mr. Malison’s badness emerges from this division between self and the drive to behave according to his given role. He achieves greater fulfillment by leaving his duties behind and behaving like a human, not a schoolteacher. Alec goes on to describe the boat that he is building, and Mr. Malison defends Alec’s hobby to Mrs. Forbes as an enabling means for scholarly pursuits. The novel stresses the importance of physical exercise for Alec’s development. While attending university later on, Alec befriends a man by the docks and goes out rowing to “[strengthen] his growing muscles” (1: 273). Like Alec, who needs the physical labor of boat-making to achieve a greater wholeness that allows him to become a good scholar, Mr. Malison develops by becoming more than the role that he is expected to play.

Character development is not portrayed as something that occurs as an individual activity. *Alec Forbes* locates development as a response to the recognition of one's smallness within a larger network of being, though one that can only be recognized through its parts.

It was on a bright frosty evening in the end of October, that Alec entered once more the streets of the great city. The stars were brilliant over-head, the gems in Orion's baldric shining oriently, and the Plough glittering with frost in the cold blue fields of the northern sky. Below, the streets shone with their own dim stars; and men and women wove the web of their life amongst them as they had done for old centuries, forgetting those who had gone before, and careless of those who were to come after. (2: 108-109)

The description of society as a web, which also appears in *David Elginbrod*, suggests the interconnectedness of human life. These "stars" that are "brilliant over-head" reflect and are reflected by similar stars created by human light. Civilization endures alongside the cosmos and exists through a never-ending cycle of forgetting and carelessness. Unlike the stars above, the stars below are dim and transitory. Individuals exist within a larger web of meaning, which connects them to the past, present, and future.

This function of stars as a destabilizing yet productive influence on character development is described in Anna Henschman's *The Starry Sky Within*.

Both Hardy and Eliot rely on the analogy between an individual character's tendency to see him- or herself as central to the world and the perception that the earth is the center of the universe... In many of his novels Hardy uses the challenges that observing celestial bodies present to the astronomer to reveal the optical roots of what becomes a moral problem of failing to register the fullness of another person's existence. He repeatedly uses characters' observations of

individual celestial bodies to shed light on the difficult of knowing other minds. By contrast, individual celestial bodies are rarely central to Eliot's invocations of astronomy. Instead, Eliot's analysis of egotism in individual characters is frequently linked to the perception that the universe is organized around the earth. (166)

The function of stars in *Alec Forbes* is similar to Eliot's use of stars as a cosmic reminder of decentered smallness, for "Eliot contrasts this limited sense of scope with the increased sense of the largeness of the world" (194). Alec's experience of the stars leads to a greater appreciation for the beauty of the universe in its starry, never quite knowable expansiveness. His recognition of smallness under the stars indicates his transition from a childish, self-centered view of himself to a decentered, mature view that is oriented outward like Gwendolyn of *Daniel Deronda* who "get[s] a sense that her horizon was but a dipping onward of an existence with which her own was revolving" (194).

This sense of unity achieved through a recognized cooperation of elements appears through Alec's surgical practices. Because his studies lead to engagement with the world through the close study of individual things, his scholarly pursuits lead to the development of his character. While Alec's commitment to becoming a physician requires moral development beyond the improvement that his studies provide, the narrative nevertheless frames his resistance to public criticism and the distractions of university pleasures as nothing short of heroic. Early in his studies, Alec embodies the tireless yet socially castigated scientist. He spends long hours working in the "dissecting room...after the other students had gone" and ends up falling asleep at one point after lying down his scalpel (1: 265). As later revealed by Mr. Cupples, Beauchamp lurks at the window. Alec does not discern that Beauchamp is watching him. Nevertheless, Alec detects an "eerie" presence and leaves hurriedly. Only after he "had his tea, and learned a new

proposition of Euclid” is he able to leave the “fright...far behind him” (1: 266). The act of learning leads him out of his own misery.

The nature of knowledge is presented as social. The benefits of scholarship are related to its sociality and engagement in ongoing discourse with other people. For all its acts of dissection, scientific knowledge connects past and present generations. The study of individual parts leads to a greater understanding of wholes, even if these wholes are ever-shifting. After Alec experiences the cold indifference of Kate due to Beauchamp’s seduction of her, Mr. Cupples humorously yet truly achieves “some perception of the real condition of Alec’s feelings” by launching into a “humorous travesty of a lecture on physics” (2: 114).

Ye ken weel eneuch what I mean. There’s a trouble upo’ ye. I’m no speirin’ ony
 questons. But jist haud a grip o’ yersel’. Rainbows! Rainbows!—We’ll jist hae a
 walk thegither, an’ I’ll instruck ye i’ the first prenciples o’ naiteral philosophy.—
 First, ye see, there’s the attraction o’ graivitation, and syne there’s the attraction
 o’ cohesion, and syne there’s the attraction o’ adhesion; though I’m thinkin’, i’ the
 lang run, they’ll be a’ fun’ to be ane and the same. And syne there’s the attraction
 o’ affeenity, whilk differs mair nor a tae’s length frae the lave. In hit, ye see, ae
 thing taks till anither for a whilie, and hauds gey and sicker till ‘t, till anither
 comes ‘at it likes better, whaurupon there’s a proceedin’ i’ the Chancery o’
 Natur—only it disna aye haud lang, and there’s nae lawyers’ fees—and the tane’s
 straughtways divorced frae the tither. (2: 114)

By describing the first principles of physics, Mr. Cupples analogically describes Alec’s condition. One of the constant themes of Cupples’ description is the inconstancy of attraction, for “ae thing taks till anither for a whilie, and hauds gey and sicker till ‘t, till anither comes ‘at it likes better, whaurupon there’s a proceedin’ I’ the Chancery o’ Natur—.”

In addition to mere sociality, scientific knowledge at this time is rendered as inevitably public as displayed through the responses to a prank pulled by Alec and his fellow prankster and close friend, Curly, on the townspeople of Howglen. They tie together the tails of cows, horses, a sheep, a goat, several dogs, and a cat (a rabbit is tied to its tail). This absurd spectacle literalizes the Chain of Being. It appears as a “strange monster” created by the “accretion of living joints” (1: 219), but at first sight, the scene is more amusing than threatening.

Staring up the street towards the sunset, which coloured all their faces a red bronze, stood a group of townsfolk, momentarily increasing, from which, before Wattie’s party could reach it, burst a general explosion of laughter. It was some moments, however, before they understood what was the matter, for the great mild sun shone full in their eyes. At length they saw, as if issuing from the huge heavy orb, a long dark line, like a sea-serpent of a hundred joints, coming down the street towards them, and soon discovered that it was a slow procession of animals.

When Mrs Stephen[, the cow], reached the square, she turned to lead her train diagonally across it, for in that direction lay her home. Moved by the same desire, the cadger’s horse wanted to go in exactly the opposite direction. The cow pulled the one way, and the horse pulled the other; but the cow, having her head free, had this advantage over the horse, which was fast at both ends. So he gave in, and followed his less noble leader. (1: 219-220)

In this passage, the traditional Chain of Being perspective is portrayed as an inadequate hierarchy. By leading the horse, the cow moves beyond a fixed position of docility as one “less noble” than a horse. The hierarchy is collapsed. On another level, this scene corresponds to an

evolutionary model of connected organisms. The public responds in a way that is deflated of malice and suspicion. Evolution is neither fearful nor deserving of public hysteria.

One qualification presents itself. The narrative calls attention to the damage done to the cadger's horse and the rabbit. This horse is described as a "gaunt sepulchral animal, which age and ill-treatment had taught to move as if knees and hocks were useless refinements in locomotion" (1: 219). The rabbit belongs to Tibbie, the lame boy. Thomas confronts Alec after the prank by "pulling the dead rabbit out of his pocket, and holding it up by the ears. 'Ca' ye that no hairm?'" (1: 222). Despite the unobtrusiveness of evolution as a naturalistic theory, the cobbling together of organisms to make some grand narrative that naturalizes violence is seen as dangerous. The fault does not lie in the theory, but the caution lies in a fear of its endorsement of inevitable violence.

Despite its productive capabilities, intellectual knowledge is not enough on its own. While Alec's scholarship aids his development, this development is only tempered by his restored kinship with the people of his community. He "never practised in his profession, but became a first-rate farmer" (2: 326). Mr. Cupples "never married. But he wrote a good book" (2: 326). Until he acknowledges the goodness of God and the universe, Cupples cannot "find or invent a theory of the universe which could show it still beautiful despite of passing pain" (1: 257). People find fulfillment in different ways. Alec finds fulfillment in his studies for a time, and then he moves on to something else. *Alec Forbes* stresses the dynamism of characters. Characters are praised for challenging traditional forms and engaging themselves in scientific pursuits, which recognize the cooperation of elements and the transitory nature of all unities. *Alec Forbes* reveals the religious attitudes and orientations that allow for an increased receptivity to science. These attitudes include receptivity to change and recognition of one's small place in

the universe. Only these orientations to truth can create a restored sense of self in relation to others.

Evolutionary Diversity and Change:

Lilith's Celebratory Assessment

Published in 1895, *Lilith* is subtitled “A Romance.” This statement departs from the marketing of his other adult fairy tale, *Phantastes: A Faerie Romance for Men and Women*, which was published in 1858. The dropped-off “faerie” suggests an altered motive for *Lilith*. The novel does not invest in fairy tales for their own sake. Rather, the text is concerned with relational attitudes towards science, evolutionary debates, and public education and attitudes toward science. However, why does MacDonald invest in a fairy tale to discuss matters of science? There are at least three possibilities. The first possibility is that MacDonald found his fairy tales to be readily marketable, and *Lilith* has the function of continuing *Phantastes'* creation of an adult fairy tale narrative. The second possibility is that the guise of a fairy tale has the potential to ameliorate merely reactionary attitudes towards evolution and science. Fairy tales seem like a turn towards the past, so the use of them for different ends has the possibility for productive subversion. Quite related to this possibility is that anthropologists like Edward Tylor had located a protoscientific worldview in the past, which departed from earlier totemic models. Thus, *Lilith's* reification of past folklore brings attention to contemporary anthropological debates.

The third possibility is that MacDonald may have written a story with fairy-tale elements simply because he wanted to write one. This explanation seems like pure conjecture and too trite to be worth mentioning, but there is textual evidence in *Alec Forbes* to support this view. In *Alec Forbes*, the narrator talks about one of the characters wandering off into the woods and observes that “if she were only small enough to go wandering about in it, what wonders might she not discover!—But I forget that I am telling a story, and not writing a fairy-tale” (1: 262). This slip reveals MacDonald's natural propensity for this genre. Having published *Heather and Snow* in

1893 after several nonfictional works and going on to publish *Salted with Fire* in 1896, just a year after *Lilith*'s publication in 1895, MacDonald may have desired a return to the genre that began his success, the mode in which he seems most comfortable.

Regardless of motives, the use of fairy tale elements stands in unison with a certain aspect of his contemporary counterpart, Andrew Lang. As Kathy Psomiades notes in "Hidden Meaning: Andrew Lang, H. Rider Haggard, Sigmund Freud, and Interpretation," Andrew Lang argued for Edward Tylor's model against the totemic model proposed by Max Müller: "for Tylor, myths are not the debased form of an originally poetic/philosophical/religious approach to the mysteries of the universe, but a primitive form of science. Myth originates in 'that actual experience of nature and life, which is the ultimate source of human fancy'" (par. 9). MacDonald valorizes Tylor's model by using the fairy tale genre to consider the relationship of humans to scientific knowledge and nature.

Since they participate in a shared ontological purpose of being, the story's narrator, Mr. Vane, finds affirmation for being through his degree of difference from other things like flowers and other species. By taking this approach, MacDonald reveals his Romantic inclinations but moves beyond the standpoint of an elevated subjectivity ala Romanticism: the story's narrator can only know others through knowing himself, and by knowing others, he is able to return to a better understanding of himself through an acknowledgement of his participation in a larger network of being itself and beings. Difference and change are celebrated throughout the narrative. The thoughts of God, which give rise to different species and animate existence, are transitory like "lightnings that took shape as they flashed from him to his" (340) to produce creative diversity.

In *Lilith*, an Oxford graduate named Mr. Vane is said to inherit an ancestral home at a young age. However, he does not assume management of the home until the completion of his

studies at Oxford, which is the point at which this novel begins. This home is seemingly haunted by an old librarian who is later revealed to be Adam from the Book of Genesis. This old librarian is known to Mr. Vane as Mr. Raven and sometimes appears as a literal raven. As a librarian, Adam leads the narrator into an attic, which holds a machine that allows for interdimensional travel. The majority of the narrative takes place in an alternate dimension, which figures as a sort of purgatory or intermediary afterlife. Though the experience does not last, Mr. Vane is seemingly resurrected in this afterlife.

Despite the fantastical elements of this narrative, the novel clearly participates in the evolutionary debates of its time and how humans relate to knowledge. Taking evolutionary thought for granted, *Lilith* explores how humans might relate and respond to evolutionary knowledge. In the very first chapter, the narrator talks about his reading practices.

In the great room I mainly spent my time, reading books of science, old as well as new; for the history of the human mind in relation to supposed knowledge was what most interested me. Ptolemy, Dante, the two Bacons, and Boyle were even more to me than Darwin or Maxwell, as so much nearer the vanished van breaking into the dark of ignorance. (2)

MacDonald's narrator has a relational attitude towards science. Rather than existing as a thing-in-itself, science matters to the narrator because humans exist in a relational position towards the subject. Furthermore, this passage reveals whom the narrator (and perhaps MacDonald) was reading. Mr. Vane prefers writers that deal with epistemological questions and a priori considerations of knowledge rather than applied knowledge or "supposed knowledge" (2). This supposed knowledge might conceivably refer to all knowledge, especially the knowledge that humans suppose about the contours of science, morality, nature, etc. MacDonald's narrator does

not reject developments in natural philosophy, but he is more concerned with how humans relate to this knowledge.

Peter Garratt describes this turn. As he explains in *Victorian Empiricism*, “philosophical ideas require narrative to embody them,” and the “direction of the analysis” of knowledge is “moved inward, as it were, toward the knowing subject” (161). This move is shaped by the “tension between interiority and exteriority, one that is crucial to the epistemological structure of empiricism itself” (161). The elevation of relativism marks the 19th century. Although the writers that Mr. Vane mentions come from a past era, they are not outmoded. Rather, they represent the contemporary turn towards an increased consideration of relativity, a “tradition [that] preferred more or less to bracket the real object in itself, concentrating its primary interest instead on sequences of impressions and ideas” (162). Like *David Elginbrod*, *Lilith* stresses this relativity of minds to knowledge and prizes associationism.

This type of concern matches with the populist emphasis on science during the 1860s, which is around when MacDonald began to achieve success as a writer with the publication of *Phantastes* in 1858. There then existed a rising interest in how science affects the public, the supposed epoch, religion, social habits, and what people do with knowledge. In the 1890s, during which *Lilith* was published, the correspondent nature of public and professional science led to increased resistance against scientific naturalism by formerly irregular means. Ted Underwood notes in “How Did the Conservation of Energy become ‘The Highest Law in All Science?’” that “there was...a popular audience for scientific ideas...the universe of authenticated science was growing large; in the general-interest monthlies and nascent magazines of ‘popular science’” (119). *Lilith* participates in this rising public awareness of knowledge. As a book that engaged with these issues, though often indirectly, *Lilith* was readily marketable. It achieved great

marketing success in both England and the United States as Dodd, Mead & Co. published several editions.

Though full of spiritual mysticism and elements of a fairy tale, the narrative offers unexpectedly naturalistic explanations for phenomena. The narrator's experience in this purgatorial afterlife is chalked up to a dream narrative. This dream is presented as possibly emerging from a divine source, but this source does not collide with its plausibly physical origins. At the story's close, the narrator says, "I know not whether these things rise in my brain, or enter it from without. I do not seek them; they come, and I let them go" (350). Like writing, the dream can claim to be inspired and proffer access to an imaginative, mystical experience, but this narrative's location and events cannot be claimed as reality because doing so would place the text beyond the realm of fantasy and thus open to closer scrutiny. If the narrator's experiences are granted a definitively divine origin, then MacDonald would be presenting his own ideas about mysticism as objectively certain. By refusing this positivism, the narrative enforces its credibility and provides the desired mystical experience of what it might be like to be dead then resurrected. Where post "two cultures" critiques impugned science for inflexible concreteness, "one culture" writers like MacDonald celebrated it for its relationism and dynamism.

The epistemological uncertainty of Mr. Vane is reinforced when he describes his thoughts as things that "come," which he must "let...go" (350). By entertaining these thoughts and fantasies, Mr. Vane accepts the limitations of mysticism to provide certainty. Although he does not deny the value of his experiences, he will not claim them as objective. This feature places the narrative into dialogue with the epistemological uncertainty that characterizes a rising modernity. Mr. Vane's lack of certainty does not serve as a defect but instead boosts his

reputation to contemporary readers by appealing to the increasing clout of epistemological uncertainty.

This kind of reflexivity about providing a plausible, natural explanation for the narrative's events communicates a textual anxiety that seems out-of-place for a story with such fantastical elements. The story resists being identified with fantasy. *Lilith* is fantastical but not fantasy. The narrative is grounded in the plausibility of its events. Conceivably, this narrator could have dreams with strange, archetypal features and rhythms. Tylor's model provides an explanatory description of these things as protoscientific, ingrained qualities of the human mind. These explanations place *Lilith* within the genre of realism, a realism that is highly invested in the interiority of Mr. Vane and the universality of his experience. By delving into the depths of consciousness, the story is really exploring all minds.

As a scientist and the father of all humankind, Adam embodies Tylor's "protoscientific" individual. Adam serves as a model for a broadly considered humanity. Mr. Vane describes Adam as one who can "[see] through accident into entity" (14). Adam captures light and energy with a machine by pulling on a series of chains, which creates a portal to a parallel dimension, and he is able to speak to the narrator about "dimensions, telling [him] that there were more than three, some of them concerned with powers which were indeed in us, but of which as yet we knew absolutely nothing" (54). Despite the allusion to psychic powers, the text's practice of referring back to this extraordinary event, interdimensional travel, to a term used in discourse about natural philosophy, "dimensions," reinforces the importance of science, even for discussing matters that border on the spiritual.

Alluding to evolutionary theory when he describes the "steppes of Uranus," Adam describes to Mr. Vane the species that live there. Adam says that the "animals there are all burrowers...like the field-mice and the moles here.—They will be, for ages to come" (21). The

uses of the future tense and emphasis on change after many ages, however long these might be, suggest the mutability of these organisms. Occurring over ages, change is portrayed as inevitable and gradual. The narrator embodies a reactionary view towards evolution when he says that the danger of Adam turning a worm into a butterfly is that “it will grow proud, and cease to recognise its superiors” (23). A rare interruption from a third-person narrator beyond the usual first-person narration immediately observes that “no man knows when he is making an idiot of himself” (23), which blatantly rejects Mr. Vane’s reactionary response.

Biological language provides fertile metaphors for spiritual progress. Adam rhetorically asks, “does a sexton toss worms in the air, and turn them into butterflies?” (37). Of course, worms do not become butterflies, and the narrator pushes this point elsewhere: “you mistake, Mr. Raven: worms are not the larvæ of butterflies!” (23). Adam cautiously replies, “I’m not a reading man at present, but sexton at the—at a certain grave-yard—cemetery, more properly—in—at—no matter where!” (23). Although Adam professes ignorance, he is actually quite the successful scientist, for he is able to do things like manipulate machines to connect parallel universes, and he recurrently refers to scientific concerns. Adam’s profession of ignorance should be read as MacDonald’s anxiety about getting some of the scientific facts wrong. If Adam himself cannot claim to be a “reading man at present,” then surely MacDonald the writer cannot be blamed for getting a few scientific facts wrong. Seventy-years-old when this story was published, MacDonald was living in Italy at the time and would remain there from 1879 to 1900. This authorial position presents the possibility that MacDonald was anxious about appearing not caught up with the current expectations of an English “reading man,” since during this time, he was largely consumed with founding a literary studio named *Casa Coraggio*.

For all his reactionary viewpoints at the beginning of *Lilith*, Mr. Vane comes to participate in scientific behaviors beyond his reading lists. He experimentally tests the reality of

his world by forcing himself to wake up after his resurrection in this alternate dimension. When he leaves this realm and finds himself back within his home, he tests the levers of the machine that initially brought him there. Mr. Vane's curiosity about the nature of things leads to all the story's events, not divine disclosure. The divine disclosure comes later, but the narrator has to work for it using natural means. Though Hugh's reentrance into this alternate dimension occurs after simply falling asleep four nights later, his efforts to get back into this frame of mind are what bring him back to the dimension. The narrator's attempts to transcribe a manuscript are analogous to the scientific process. The "aroma of an idea," which is caused by the "mutilation" of the full text, a manuscript that borders the two dimensions and is tucked into a corner of the bookshelf, nevertheless "rous[es] in [the narrator] a great longing to know what the poem or poems might, even yet in their mutilation, hold or suggest" (18).

Lilith is identified as part of the collective unconscious. Her language "seem[s] the primeval shape of one I knew well," which recalls the monogenesis theory of language that sustained a high level of currency at this time. The story that she tells in this language causes Mr. Vane to imagine "forms [that] belong to dreams which had once been mine, but refused to be recalled" (282). Despite the narrator's failure to recall these ancestral dreams, they exist as part of the appeal of Lilith in the present. More than just a totemic holdover, this attraction further fuels his curiosity and causes him to engage himself in the project to rid Lilith of her deformed grasp, her hand that has been held shut since time immemorial.

Like the protoscience of our evolutionary heritage, there are other kinds of prototypes in *Lilith*. In the recreated universe, Mr. Vane sees that "the prototypes of all the gems I had loved on earth" have become "more beautiful" after the transformation of the universe (347). Thus, the anticipated Restoration becomes fulfilled and realized in time. Described as "the spring of the universe" (57), this seasonal reference suggests an organic cycle. The wintery gems provide a

prototype for the living gems of the spring. Things start out as non-living matter and have the potential to become living. These new gems are described as “waked up gems” (345), which alludes to abiogenesis. The text accepts that living things can arise from non-organic matter.

The gems’ transformation into something “more beautiful” also suggests a teleological purpose to evolution. As well, the narrator’s observation that “not one monkey of any kind” (342) can be seen in the transformed universe implies that monkeys are just lesser-evolved humans that are bound for extinction due to their lack of completion. While problematic from a modern understanding of evolution, this unidirectional, progressive idea of evolution did not merely die out with the publication of *The Origin of Species* in 1859. Though mistaken, the text’s belief in directionality or purpose to evolution should not discount this text’s creative engagement with discourse surrounding evolution. In other ways, *Lilith* rejects reactionary views towards evolution. For example, humankind is not seen as the pinnacle of biological perfection. The text portrays humans as just part of a larger biological network of an enormous, ever-changing diversity.

My bare feet seemed to love every plant they trod upon. The world and my being, its life and mine, were one. The microcosm and macrocosm were at length atoned, at length in harmony! I lived in everything; everything entered and lived in me. To be aware of a thing, was to know its life at once and mine, to know whence we came, and where we were at home—was to know that we are all what we are, because Another is what he is! (337)

The “Another” both refers to the existence of other things that are not self and also God. This expanded understanding of “Another” as a reference to something beyond an orthodox conception of God is supported by the surplus of non-dualistic language and stress on the interdependence of things that are *another*. The non-dualistic language continues. The narrator

feels that when “a little breeze brushing a bush of heather set its purple bells a ringing, I was myself in the joy of the bells, myself in the joy of the breeze to which responded their sweet *tinning*” (338).

Humanity is not unduly elevated above other things in nature. Upon first meeting Mr. Raven, the disguised Adam, Mr. Vane asks him whether “am I wrong, then, in presuming that a man is superior to a bird?” (14). Mr. Raven says that “that is at it may be. We do not waste our intellects in generalising, but take man or bird as we find them” (14). Adam’s rhetorical maneuver deconstructs the question’s importance by calling attention to the impossibility of making such a gross generalization. This maneuver further calls attention to the slippery definition of the word “superior.” In doing so, the text rejects the Chain of Being perspective that Darwin’s ideas came to supplant.

Lilith’s recreated universe departs from an orthodox understanding of a New Heaven and New Earth because of its celebration of change, which contrasts with an atemporal, static image of the afterlife. This new world is one within time, one with “tens of thousands of changing forms” (338). The change itself is celebrated, not because these forms change into something permanent but simply because these forms change. Paradoxically, the completion of forms lies in their transience. This transience appears in how the narrator describes his memory of the story’s events. Mr. Vane observes that “as often as I try to fit the reality with nearer words, I find myself in danger of losing the things themselves, and feel like one in process of awaking from a dream, with the thing that seemed familiar gradually yet swiftly changing through a succession of forms until its very nature is no longer recognisable” (12). These “succession of forms” serve to describe human thought but also God’s by extension through recurrent descriptions of humans as microcosms. The text takes the position that thoughts must inevitably “swiftly chang[e]” and lose a “nature” that is “recognisable.” While these aspects of thought and memory make it difficult

for the narrator to describe his experience, this transitory quality of thought is not lamented but rather seen as part of the natural process of things.

Lilith praises change in other ways. At one point, Mr. Vane finds himself viewing a party of skeletal figures. As skeletons, these figures represent humans stripped to their most basic, lasting element like the cadavers in *Alec Forbes*. The language is telling: “if I seemed to catch the shape and rhythm of a dance, it was but to see it break, and confusion prevail” (185). This “wildly changing kaleidoscopic scene” (185) considers humanity through their purely material existence. Humanity exists in a state of flux; while the “shape” and “rhythm” of a “dance” might occasionally appear, all that remains is chaos. The reality of these shapes and rhythms is not established. There is room in MacDonald’s cosmology for chance.

The text has room for other things as well. While the text describes this new “life” as “a cosmic holiday” (338), there are still loathsome creatures.

[Where] once had wallowed the monsters of the earth...A whirlpool had swept out the soil in which the abortions burrowed, and at the bottom lay visible the whole horrid brood: a dim greenish light pervaded the crystalline water, and revealed every hideous form beneath it. Coiled in spires, folded in layers, knotted on themselves, or “extended long and large,” they weltered in motionless heaps...He who dived in the swirling Malestrom saw none to compare with them in horror: tentacular convolutions, tumid bulges, glaring orbs of sepian deformity, would have looked to him innocence beside such incarnations of hatefulness.

(339)

This new universe does not preclude the existence of monsters, for “they were not dead,” even though “not one of them moved” (339). Earlier, in his ordinary world, the narrator sees a “thrush breaking his way into the shell of a snail” (20), which calls attention to the naturalness of

violence. Violence is portrayed as part of the natural order. While the narrative does not go far enough to claim that the new universe will have active monsters, MacDonald is clearly comfortable with a teleological end to the universe with evil vanquished and castrated but not a merely passing reality.

In a universe with dangerous environments and predation, species must adapt. *Lilith* explores this issue through the Little Ones. A small community of miniature, child-like beings, these are the departed souls of infants and children who died before maturity, not unlike the Lost Boys of Neverland. These Little Ones appear elsewhere in MacDonald's writings. However, they do not usually represent the souls of lost infants and children: this feature is peculiar to *Lilith*. In *Fairy Tales, Natural History and Victorian Culture*, Laurence Talairach-Vielmas claims that MacDonald's Little Ones functionally "connect contemporary anthropological research with fairy tales" (153). He further claims that the "connections that were drawn between the Little People, now viewed as less evolved creatures with childlike characteristics, and children – [was] a parallel which brought home the way in which ontology was then believed to recapitulate phylogeny" (153). The Little Ones have the same function in *Lilith*, and they go through an evolutionary episode of their own.

After the narrator returns to the country where the Little Ones live, he finds that they no longer live in bushes. Instead, they have migrated to the forest to avoid the giants who "began to destroy the trees on whose fruits the Little Ones lived" (229). Mr. Vane's favorite of the Little Ones and future bed-neighbor, Lona, in the mausoleum of beds that Adam maintains, explains how the Little Ones came to live in trees after Mr. Vane's initial departure.

[She] reflected that where birds, there the Little Ones could find habitation. They had eager sympathies with all modes of life, and could learn of the wildest creatures: why should they not take refuge from the cold and their enemies in the

tree-tops? why not, having lain in the low brushwood, seek now the lofty foliage?
 why not build nests where it would not serve to scoop hollows? (230)

This strategy works quite well, for the giants “came ere long to the conclusion that they had frightened [the Little Ones] out of the country” (230). This scene is an evolutionary scenario: the Little Ones are easily outclassed by strong predators, but their cunning allows them to adapt their biological behaviors in order to survive.

On the other hand, this change is not, strictly speaking, evolutionary because the Little Ones cannot reproduce and pass on these changes. Although their capabilities seem to expand as they become ready climbers, mimicking the lifestyles of birds, and become stronger, learning how to throw rocks and ride small elephants and horses, these changes are technically not Darwinian evolution because these changes result from their behaviors. These changes are not quite expressions of a belated Lamarckism, either, because these changed behaviors do not result in an altered biology that is passed down. The adaptation is closest to one particular author-critic of Darwinism, Samuel Butler. In *Evolution: The History of an Idea*, Peter Bowler notes that “Butler [eventually] began to see in Lamarckism the prospect of retaining an indirect form of the design argument,” (259) which appealed to him greatly. This possibility would allow for a God that “might exist within the process of a living development, represented by its innate creativity” (259). Adam refers to this innate creativity when he claims that everyone contains a “beast-self,” “bird-self,” a “fish-self,” and a “creeping serpent-self too” (37). This notion provides a supplemental explanation of what has already been examined, which are the “powers which were indeed in us, but of which as yet we knew absolutely nothing” (54). This language points towards an “innate creativity,” a divinity to species that allows for the variation of species.

Lilith alludes to Butler through the resemblances between the city of Bulika, which Lilith rules over, and Samuel Butler's *Erewhon*. Upon entering Bulika, the narrator finds himself lost and ignored.

Oftener than once or twice I appealed to passers-by whom I fancied more benevolent-looking, but none would halt a moment to listen to me. I looked poor, and that was enough: to the citizens of Bulika, as to house-dogs, poverty was an offence! Deformity and sickness were taxed; and no legislation of their princess was more heartily approved of than what tended to make poverty subserve wealth.

(162)

The criminality of poverty and sickness also appears in *Erewhon*. This similar presentation of a dystopic society further supports the idea that MacDonald was reading Samuel Butler and entertained Butler's views on evolution.

Like Charles Kingsley (and to a lesser extent, Samuel Butler), MacDonald stresses intentionality and design to evolutionary change, especially in regards to individuals. Lilith's sin is described as being "what she had made herself" instead of "what God had intended her to be" (283). This notion of God as in possession of deliberate intentions for individuals is further reinforced by the symbolic functions of names in the story. Mara, Adam and Eve's daughter who is also known as the "Cat-woman" (95) by the Little People, observes that Mr. Vane has a "real name...written on [his] forehead" (100). This "real name" suggests that his identity has been handed to him, even though "at present [his name] whirls about so irregularly that nobody can read it" (100). Mara hopes that it will "settle at last" (100), which means that Mr. Vane will become what God intends him to be.

This view of the individual is very different than *David Elginbrod's* treatment of the individual. While Hugh Sutherland of *David Elginbrod* and its other characters are consistently

described as transcendently unknowable, partially due to their interdependence with nature and society but also due to a transcendental notion of the human subject, *Lilith* suggests that individuals have particular identities that, while not fixed immediately, eventually arrive at an eternally static state. However, this treatment of names in the text seemingly runs counter to the dynamism of an anticipated new heaven and earth. Perhaps this different perspective is due to the generic expectations of fantasy. The genre anticipates a just, complete, and divinely ordained ending for its characters. By providing this sort of resolution to names, the story fulfills its generic expectations.

Although *Lilith* does not fully present the same level of nuanced treatment about individuals that *David Elginbrod* so effectively provides, this difference can be partially attributed to the difference in genre. For all MacDonald's Christian machinations and belief in divine intentionality, they do not limit his scientific concerns. This novel brings public attention to contemporary debates of its time. *Lilith* is obsessed with natural science and humankind's relationship to science, and the diverse products of an evolved and evolving world are praised and celebrated throughout its bold narrative.

Conclusion

Through their interactions with science, MacDonald's writings provide a novel perspective for nineteenth-century studies. Because of his peculiar features as a non-institutional Christian who espouses a form of panentheism, an elevated respect for scientific endeavors, and liberal interaction with emergent scientific knowledge, MacDonald should be reinstated within this discussion. Though he has not yet experienced a scholarly resurgence, MacDonald has recently reached a wider audience through adaptations. During the writing of this thesis, a musical stage adaptation of *The Light Princess* was performed by the Royal National Theatre in London and had an extended run. Its musical producer, Tori Amos, described the piece in a May 5th, 2014 interview as a "feminist fairy tale." Her attitude and the highly positive reception to this musical suggest that this refiguring of a formerly crossed-out author is already underway. A scholarly resurgence is needed to explain and understand his modern appeal.

Universal Music Group will release a 33-track cast recording of the musical during 2015, and numerous other adaptations have appeared over the last few years that interact with MacDonald in some way. These adaptations and interactions with MacDonald's life include the play *A Bright Particular Star* by Ron Reed that was performed in 2006. It portrays the cultural pressures that MacDonald's daughter, Lily, faced in her acting endeavors. Twyla Tharp created a ballet adaptation in 2012 that was co-commissioned by Atlanta Ballet and Royal Winnipeg Ballet. These adaptations have not been contained to the stage. Colin Downey directed *The Shadows*, which is based on the story by MacDonald by the same name and had a 2013 release in Ireland by Galway Film Fleadh. Recent adaptations indicate a trickling though rising resurgence of MacDonald in the public consciousness.

MacDonald should continue to be read outside of the traditional assessment of him as a fairy-tale writer with little to no critical investment over how his writings react to changing

attitudes of his period. This approach allows for alternative views beyond standard, canonical divisions between reactionary authors towards science and more liberal endorsers and admirers. MacDonald has been faultily located within the former camp, but he fits more properly into the latter. His views on God and nature prefigure the advent of process theology, but his usefulness is and should not be contained to theologians.

George MacDonald's utilization of scientific language and scientifically influenced aesthetics reveals submerged, nuanced dialogue on these issues that needs to enter the forefront of nineteenth-century discussions on the novel. His positive, liberal position on the benefits of a scientific worldview provides a model that challenges an understanding of nineteenth-century religious novelists as necessarily reactionary or averse to change. The materialist explanations that are provided for seemingly supernatural occurrences in *Lilith* challenge an understanding that novels with fairy-tale elements lie outside the realist tradition. Time will tell whether MacDonald studies achieve further traction. His reentrance into the public consciousness through the success of recently successful stage productions may contribute to this development. This thesis optimistically concludes that regardless of what form future engagement embodies, MacDonald's novels will continue to bear fruit for assessments that break with tradition and attempt to interact with his texts through a historically grounded, scientifically-oriented lens.

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