

Latter-Day Saint Theology of a Material, Embodied Deity *vis-à-vis* Evolutionary Conceptions of Embodiment, Agency, and Matter

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Abstract

Do Latter-day Saints (Mormons) have anything to contribute to theological conversations about the nature of God? The article explores this question through the lens of Latter-day Saint conceptions of matter and agential embodiment that may be useful in generalizing material theologies and provide a resource for other material-based views of deity. The argument will examine the question by first exploring the nature of agency articulated from three perspectives: 1) Process thinking in the life sciences; 2) materialist feminism; and 3) evolutionary biology. The article then suggests that the materialism of Mormonism, while in the first stages of theological engagement, is likely to provide possible dialogues with other religious traditions, looking at mattered and embodied conceptions of deity, including trinitarian ones.

Keywords: Mormonism, Church of Jesus Christ of Latter-day Saints, evolution, agency, feminism, embodiment

Introduction

In this essay I examine whether a material conception of deity has anything to contribute to contemporary debates about imminent, relational, and creative conceptions of humans' place in the universe. In particular, I want to explore whether such views have anything to contribute to theological conversations

about the nature of God *vis-à-vis* current scientific viewpoints. Why science? To rephrase Tertullian's question, 'What has Athens to do with Jerusalem'? we might echo, 'What has the Large Hadron Collider particle accelerator at CERN or DNA to do with theology'? Sources of God's revelation to humans usually include scripture, specific authoritative figures, and tradition. I would like to include, controversially, that nature itself might be a source of insight about deity – not in the sense of Paley's natural theology, in which the goodness of God can be read off nature's particulars in light of complexity or beauty, but rather in exploring the question whether fundamentals about material relationships, processes, and embodiment might be worth paying attention to on a theological level. This requires a hermeneutics of science in conversation with theology. I acknowledge upfront its problematic challenges. The efforts to allow the conversation between science and religion to be mutually respectful and productively engaged has provoked a number of responses on how to interpret the two ways of knowing in ways that acknowledge the strengths and insights of both.

I will explore Mormonism (more formally known as The Church of Jesus Christ of Latter-day Saints) as an example of material theology to open the conversation between science and theology because of its metaphysical commitment to materialist conceptions of embodiment, soul, and God. Usually, God is considered the creator of both the laws of the universe and the universe itself, and as such the interface between science and theology places science as the study of what God has chosen to create (recognizing the question of whether he could have chosen a different creation has deep, well-debated roots). Counterintuitively, in Latter-day Saint theology, there are laws and material and souls that are not dependent on God as first cause. God is a contingent being whose existence is conditioned on certain aspects and even norms that instantiate God's existence. For example, the *Book of Mormon* explicitly makes a claim that there are conditions that God must abide by to remain worship worthy. In explaining the role of justice in God's redemption of humanity, a prophet named Alma explains:

Therefore, according to justice, the plan of redemption could not be brought about, only on conditions of repentance of men in this probationary state, yea, this preparatory state; for except it were for these conditions, mercy could not take effect except it should destroy the work of justice. Now the work of justice could not be destroyed; if

so, *God would cease to be God* (Book of Mormon 2000: Alma 42:13; emphasis added).

This theology differs from the perspective of many standard creedal Christian views. Its onto-commitments arise as part of Mormonism's materialism and deserve some reflection and consideration in light of scientific claims. Moreover, it might have implications and resources that other materialist conceptions of the divine might find useful.

Mormonism holds that matter's ability to form relationships with other instances and configurations of matter are fundamental to ontological commitments of which both humans and God partake. The relational abilities of matter, and whatever laws instantiate them, form the fundamental structure of a self-existent universe, which in some ways might seem to have more in common with forms of atheism in terms of the foundational aspects of the universe being present prior to God, than found in traditional theistic views. Despite its materialism, Mormonism is committed to an embodied God who is worship worthy, creative, passionately loving, immanent, and one who can be moved by and attentive to individual petitions through prayer. Moreover, this joint creaturely and providential tie to the same ontological universe as seen in nature and studied by science, takes on interesting significance for understanding aspects of theological concerns, especially in relation to what it means to be creaturely embodied in a relationship with an embodied God.

This essay engages in a thought experiment exploring theologies of materiality and embodiment along these lines with attention to Mormon articulations of deity as a model for, or illustration of theological possibilities. My aim is not to put materialist and nonmaterialist theologies into conversation *per se*. Such a conversation has been carried on for centuries and, while acknowledging it, I intend to primarily focus on how Latter-day Saint theology engages with current scientific thought and considers what it offers as a materialist theology *vis-à-vis* other possible materialist theologies. The essay is structured as follows: First, I examine the development of aspects of Mormon theology with a focus on Mormon material theologies. Second, I look at Mormonism in conversation with science and theology in three specific areas:

1. The theology of bodies.
2. Material conceptions of agency in biology and Mormonism.
3. Natural processes and insights that bear on the nature of the Godhead in Latter-day Saint thought.

For each of these topics, I will untangle what work material philosophies might offer and how Mormonism situates itself, or potentially situates itself in relation to ideas of a material theology. Third, I will suggest how these theological perspectives relate to ideas of creation, becoming, and religious life.

Mormon Material Theologies

The Church of Jesus Christ of Latter-day Saints does not have a long history of speculative or systematic theology (for a few counterexamples, see McMurrin 1959; Ostler 2001), partially because the church is of recent origin, having been established in 1830 and because the church has focused largely on praxis rather than on theological development. Some thoughtful church thinkers have argued that there is no adequate enunciation of Mormon theology *per se* and that practice and worship are more important than doctrinal commitments. Nonetheless, there recently has been a flurry of thinking about Mormon speculative theology (Welch 2017; Petrey 2011). For example, the Maxwell Institute for Religious Scholarship is releasing a set of theological introductions to the *Book of Mormon*, modeled on the Oxford Very Short Introduction series.

However, from the first generation of people in the Mormon movement, the church's doctrinal resources have been committed to a material conception of deity. I will briefly examine this commitment.

Matter in Mormonism

Matter plays a key role in Mormon theology and informs Mormonism's entire cosmology, including its conception of a material heaven with embodied individuals sealed together in eternal relationships (Stapley 2018:11). The roots and history of thinking about matter in Mormon theology have a long history of exploration (Brooke 1996; Givens 2014; McMurrin 1959; Park & Watkins 2010; Peters 1993; Webb 2011; Miller 2016). The Doctrine and Covenants (hereafter D&C) is largely a collection of revelations delivered by Joseph Smith from 1828 to 1844 and considered to be one of the foundational Mormon scriptures. In one of these revelations, Smith receives the following, 'There is no such thing as immaterial matter. All spirit is matter, but it is more fine or pure, and can only be discerned by purer eyes; we cannot see it;

but when our bodies are purified, we shall see that it is all matter' (D&C 2000 131:7-8). The embodied nature of God is articulated as follows: 'The Father has a body of flesh and bones as tangible as man's; the Son also; but the Holy Ghost has not a body of flesh and bones but is a personage of Spirit. Were it not so, the Holy Ghost could not dwell in us' (D&C 2000 130:22). Note that in the former scripture above, the spirit is said to be composed of a more refined type of matter. The groundwork for Smith's materialist leanings has resonances with the work and writings of John Milton, especially *Paradise lost* (Kerrigan, Rumrich, & Fallon 2007). John Rogers has done careful work on the influence of Milton's language on Smith and on two of his contemporaries who framed much of the early thinking on Mormon materialism, brothers and theologians Orson and Parley Pratt, whose work we will look at in detail below (Rogers 2017). Rogers notes the similarity of word choice and phrasing in the above-cited scripture and in the following from *Paradise lost* (Kerrigan *et al.* 2007:467-476)

But more refin'd, more spirituou, and pure
As nearer to him plac't or nearer tending.

Later, in the Nauvoo period, named after the city the Latter-day Saints built in Illinois, Smith developed a complex theology that centered on an embodied materialistic God in a Trinity. Terryl Givens gives a fairly complete and nuanced view of thinking about matter in the formative years of the church and draws out three points (Givens 2014).

First, in these early years, there were numerous unresolved discussions among leaders of the church about whether panpsychic attributes obtain in matter (Givens 2014:16).

Second, a different form of dualism developed that combined everyday matter and this novel form of refined, preexistent spirit matter. Together, these two types of matter defined the eternal soul: 'And the spirit and the body are the soul of man' (D&C 2000 88:15). This conception of the soul differs from classical forms of Christianity in which humans are dual creatures composed (if that is the right word) of a separate mind (soul), as *res cogitans*, and a physical body, as *res extensa*. Givens writes that early thinkers in Mormonism tried to

find a physiological explanation for the interaction of spirit and body. At the same time, merging the two into a single theory would mitigate – if not solve altogether – the longstanding Cartesian mind-body problem (how can body and spirit interact if they occupy different planes of reality?). Smith had essentially collapsed the dualism that created the problem, when he defined spirit as highly refined matter (Givens 2014:126).

Mormons do not make claims about the physical nature or properties of this refined matter, or even that it is the kind of baryonic matter¹ which physicists demonstrate to make up the physical universe. They also do not make any claims about physical properties of matter, as they only maintain that it exists and constitutes the human spirit and, by implication, the Holy Spirit.

Third, in Givens' articulation, God is composed of matter, likely of both types. However, there is no claim that this matter is the same kind of matter that we find accessible to our own senses and scientific instruments. In addition to the material nature of the universe, the role that laws play in the universe has been of special concern. To explore this, we will now turn to the nature of embodiment in Mormon theology.

Embodied Deity(ies)

At the church's founding, an explicitly male anthropometric deity of the same heavenly species as mankind was envisioned. One of Smith's most theologically influential discourses was given in 1844 at the funeral of a follower named King Follett. This sermon laid out conceptions of both deification and divine embodiment. From the early apostle, Wilford Woodruff's transcription of Smith's sermon, we read:

I will show the world is wrong by showing what God is. I am going to inquire after God so that you may know God, that persecution may cease concerning me, I go back to the beginning to show what kind of a being God was, I will tell you and hear it O Earth! God who sits in yonder heavens is a man like yourselves. That God, if you were to

¹ Cosmologists and astronomers broadly refer to the matter of the universe as *baryonic matter*, such that it includes both baryons and leptons.

see him today that holds the worlds you would see him like a man in form, like yourselves (Discourse 1844:134).

Further theological development continued after his death. Two of Smith's followers, and arguably some of early Mormonism's most important theologians, were the Pratt brothers mentioned above. Apostle Parley Pratt continued to develop ideas about materialism and embodiment (Park 2010, 2012; Givens & Grow 2011). In his 1846 work *Materialism*, he says in poetic form:

God the father is material.
Jesus Christ is material.
Angels are material.
Spirits are material.
Men are material.
The universe is material.
Space is full of materiality.
Nothing exists which is not material
(Park & Watkins 2010:124).

Later in the same text in which he denigrates immaterial notions of deity, he adds:

What is God? He is material, organized intelligence, possessing both body and parts. He is in the form of man, and is in fact of the same species; and is a moddle [model], or standard of perfection to which man is destined to attain; he being the great father, and head of the whole family. He can go, come, converse, reason, eat, drink, love, hate, rejoice, possess and enjoy. He can also traverse space with all the ease and intelligence necessary, for moving from planet to planet, and from system to system (Park & Watkins 2010:123).

Panpsychism in Mormon Thought²

Orson Pratt tried to ground ideas of Mormon materialism in contemporaneous ideas about panpsychism. Panpsychism, the idea that matter might have innate capacity for some sort of phenomenal experience, was not uncommon.

² This section is largely a reproduction of Peck (2021).

Philosopher Leibniz's monadology is an example – the idea that the world was composed of windowless monads, perceptual atoms that had written in their inner image the entire universe. Others include philosophers Margaret Cavendish, Baruch Spinoza, and Immanuel Kant. By the late 19th century, panpsychism was being discussed broadly in philosophical and scientific circles with grounding from the German Romantics influencing American pragmatist thinkers such as Charles Peirce and William James, and British process philosophers, such as Alfred Whitehead and Bertrand Russell.

The clearest, and perhaps first, articulation of panpsychism in Mormon thought came through the writings of Orson Pratt. His influences appear to be the abovementioned 19th-century thinkers (Brooke 1996:275). He is explicit in his book, *The seer*, that 'intelligence' is a fundamental aspect of the universe's constituents. After explicating on the intelligence of 'man', he explores the origin of conscious awareness:

Whence originated these capacities? When we speak of capacities we mean the original elementary capacities of the mind...if analyzed, will be found in all instances to be the result of the combination of simple, elementary, original capacities. The question is, whence originated these elementary qualities of the mind? We answer they are eternal. The capacities of all spiritual substance are eternal as the substance to which they belong. There is no substance in the universe which feels and thinks now, but what has eternally possessed that capacity (Pratt 1853:103).

Pratt sees these fundamental units of consciousness as being combined by God to form a spirit 'infant' of which the individual parts work together to grow eventually into what we are today. He continues by writing,

Each individual particle must consent, in the first place, to be organized with other similar particles, and after the union has taken place, they must learn, by experience, the necessity of being agreed in all their thoughts, affections, desires, feelings, and acts, that the union may be preserved from all contrary or contending forces, and that harmony may pervade every department of the organized system (Pratt 1853:103).

He goes further, thus coming into conflict with Brigham Young over several matters of theology, stating not only that this is how God formed his spirit children, but likewise how God came into existence. In a sermon recorded by Woodruff, Pratt explains how eternal particles of atoms, existing for all eternity, ‘joined their interest together, exchanged ideas [and eventually, joined by other particles,] formed a body through a long process (Bergera 2002:90). Thus embodied, they gained power and influence over other intelligences and became the race of Gods.

Despite Young’s condemnation of Pratt’s theology, his ideas spread among the early Saints, as members of the church called themselves. Perhaps one of the most scientifically informed expressions of this view was found in Brigham Roberts’ *The truth, the way, the life* (Roberts, Larson, & McMurrin 1995). Unpublished in his lifetime, the book opens with a grand sweep through the best science of his day in an attempt to frame a complete expression of the gospel’s power and scope. After exploring aspects of truth, knowledge, and contemporaneous conceptions of space and time (including references to Einstein), he argues that modern physics supports the notion of agential atoms:

All the new knowledge, however, respecting the atom and all that comes of it including resolving it into electrons, leaves us with the fact that it has within it something which ‘acts’, and something which is ‘acted upon’; a seemingly necessary positive and negative substance in action and reaction out of which things proceed, an atom, an aggregation of atoms, a world; or a universe of worlds...may they not be the ultimate factors, spirit and matter, acting and reacting upon each other by which the universe is up-built [sic.] and sustained (Roberts *et al.* 1995:86).

Spirit matter then has the potential to act under the direction of deity.

Roberts argues in ways reminiscent of Orson Pratt’s that particles come together to create something greater than their individual instantiations. He argues that such particle-intelligences which are bound together in unity of purpose, manifest as the oneness of the universe. He does not explicitly state that atoms are conscious, but his hints make it clear that he regards them as agential, and the basis, if not the essence of intelligence.

Since Roberts' time, one of the more interesting modern explorations of sentient elements comes from process theology as originally articulated by Whitehead. There has been a significant interest in using Whitehead and his followers, to explore aspects of Mormon theology (Baker 2008; Grandy 2015; McLachlan 2005; Nolan 1989; Tickemyer 1984; Wotherspoon 2015). Whitehead considered the universe as fundamentally made up of experiential units called 'actual occasions' that God persuades to join him in bringing about particular aims. These agents are free, individual, able to join in relational interactions, and endowed with an innate capacity to make choices. Andrew Miles specifically uses Whitehead's thought to show how a process theology, joined with the thinking of Pratt and Roberts, can be used to derive a coherent Mormon theology, especially when viewed from how life emerges into the world (Miles 2008). Isabelle Stengers points out how several thinkers creating the emergent biology in the 20th century call for a new kind of engagement: 'As Whitehead had foreseen, each of them testifies, each in his [sic.] own way to living beings implying and calling for a new conception of the order of nature' (Stengers 2011:178).

Views of Deity Based upon Materialism

God as developed in Smith's theology is very much an advanced being in which the fatherhood of God is quite literal, and humans are his embodied spirit children. While these views still undergird the beliefs of much of the mainstream membership of Latter-day Saints, more nuanced views are being developed by current Latter-day Saint scholars. For example, theologian and continental philosopher, Jim Faulconer notes possible differences between God's embodiment and our own, questioning what is meant in Latter-day Saint thought by 'divine embodiment' (Faulconer 2005:1-14):

The bodies of flesh and bone with which I am familiar do not shine, have blood, cannot hover, can be wounded and die, must move through contiguous points of time-space – in short, they are not at all like the bodies of the Father and the Son. So what does it mean to say that the Father and the Son have bodies? In fact, does it mean anything at all?

One of the principal purposes of God's creation according to Mormon doctrinal perspectives is to provide bodies for God's children – humans – who, ac-

ording to Mormon doctrine, are *sine qua non* of the universe's creation. Latter-day Saints believe that before coming to earth, humans lived with God as preexistent spirits. Standard Mormon teachings include that we freely chose earth life in part to receive a body like we observed God to have. Therefore, embodiment was not just an attribute of God, but one of the main purposes for God's creating the universe to give his spirit children the chance to also be clothed in flesh, to be deified after the final resurrection made possible by God's Son's first resurrection. So, the divine embodiment of God and his children is part of God's plan. This is written in the Mormon book of scripture, *The Pearl of Great Price*, 'For behold, this is my work and my glory – to bring to pass the immortality and eternal life of man' (Pearl of Great Price 2000: Moses 1:39). Embodiment is regarded as fundamental to Mormon theology. Other Mormon thinkers have taken up exploring how differences in bodies might create different experiences for humans. For example, gendered bodies, queer bodies, and disabled bodies may play a role in the conceptions of divinity and post-mortality (Petrey 2011).

Mormonism also has a deeply held doctrine of a Mother in heaven, and recently there has been carefully considered research on the Mormon theology of the divine feminine (Essay, *Gospel Topics* 2015; cf. Brooks, Steenblik, & Wheelwright 2016; Hudson 2015; Jorgensen 2001). Academic treatments of the feminine divine in Mormonism have long been argued in the writings of Margaret Toscano and are appearing in the work of Fiona Givens' theological and devotional work, laying the foundation for serious discussions of the theology of a Mother in heaven (Toscano 2004; Givens 2020). Taylor Petrey reviews and critiques much of the discourse and problematics of the discourse around the idea of a Mother in heaven (Petrey 2016). In addition to academic treatments, theology about the Mother in heaven has long been associated with women's voices within the church. Space was made early in the church, especially through the poetic writings of disciple Eliza Snow (Barney 2008; Preston 1993; Heeren, Lindsey, & Mason 1984; Paulsen & Pulido 2011). The place of the Mother in heaven is being articulated especially through women's voices in prose and poetry, just as it was in the foundational events of Mormonism through Snow. In addition, there are active media sites, like websites, blogs, and other media accounts devoted to the idea of a Mother in heaven (Peck, Bach, & Shurtz 2019). Of particular interest is the work of Ashley Hoiland (2016), Kathryn Sonntag (2019), and Rachel Steenblik (Steenblik & Hoiland 2017, 2019), and an edit-

ed collection of poetry about the heavenly Mother called *Dove's song* (Chadwick, Patterson, & Pulido 2018).

The God envisioned by The Church of Jesus Christ of Latter-day Saints is embodied in matter and spirit; is agential; and can sense, influence, and be influenced by the conditions in the material universe. In addition to the three entities comprising the Trinity, Mother in heaven is thought equal in power and glory to God the Father. These heavenly parents are held to be loving gods engaged in the work of redemption for humans. Their work is not for our species alone, but for the earth itself (also thought to have a divine spirit) and for its ecology and all its living organisms. Latter-day Saint ecocritic and novelist, George Handley argues that understanding the depth of effort in creation, plays a vital role in acting with care towards that creation: 'The Creation made human existence possible, but only after an almost incomprehensibly slow and complex accretion of diverse life on this planet' (Handley 2020:xv).

The material nature of the universe generates a strong grounding in Latter-day Saint thought for an interest and commitment to science. Peck reviews the history of science in relation to Mormon theology and points out that early leaders like Smith and Young held that science was an integral part of Mormonism (Peck 2019b). Indeed, one early text, called the *Lectures of faith* ascribed to and supported by Smith, reduced theology to a science (Reynolds 1991:285-294): 'What is theology?...Answer – It is that revealed science which treats of the being and attributes of God'.

This fascination with science continued with several Mormon leaders and other academically minded authors, touting the relation between science and theology (Reynolds 1991). Prior to being ordained a Mormon apostle, James Talmage wrote several books on science, supporting its relation to faith, including *First book of nature* (Talmage 1889), which explores an in-depth contemporaneous understanding of biology. In 1924, fellow Mormon, Frederick Pack wrote *Science and belief in God*, which included the idea that religious views should be updated by science (Pack 1924:270).

Tension between religion and science later developed in Latter-day Saint thought with some leaders and thinkers embracing the rise of religious fundamentalism, thus entrenching Mormonism in a decades-long disenchantment with science and academic thought, especially in the areas of evolutionary biology and higher biblical criticism. A richer account of this can be found in an article of Peck, as well as the sources cited therein (Peck 2019b).

Not until later in the 20th century did anti-science views start to abate in Latter-day Saint discourses, although it is still visible today.

In the next section, I will expand on these theological ideas and put these theological views of the embodiment of deity and humans in conversation with current conceptions of science, especially evolutionary biology. In line with Whitehead's view that science matters in theology (which informs many of his ideas on panentheism), I will explore the ways in which science and theology speak to one another in productive means. I will then explore how Mormon theology provides incentives for looking more closely at the relation between science and theology, using resources that rely on the material aspects of deity.

Mormonism and the Current Manifest Image of Science about Matter and Embodiment

What is Matter?

Understanding matter as articulated by science warrants some attention if we are to understand the landscape for its use in Mormon theology. Since the time of Parmenides up to contemporary understandings of modern physics, there has been no satisfying single answer to the question, 'What is matter'? While we know more about the subatomic world and its constituents than ever before, there is still no agreed-upon perspective on the nature of matter. Cottrell safely (and humorously) begins his introduction to a book on matter, 'Matter is the stuff from which you and all the things in the world around are made' (Cottrell 2019:1). So, perhaps a better question than what matter is, is, 'What does matter do'?

A short list of matter's attributes may include the following characteristics: Matter has mass that affects the space-time structure around it; it vibrates at certain frequencies; it has a formal relation with energy (i.e., $E=mc^2$); it creates fields of force that influence other forms of matter, even through the void of space with which it is surrounded; it can be found in multiple phases (gas, liquid, solid, and plasma); it forms atoms through strong and weak nuclear forces and through weaker electromagnetic and gravitational forces that allow these atoms to forge relations with other atoms to form higher-order structures, such as molecules, suns, and black holes; at a

subatomic scale, it behaves in ways that defy deterministic classifications, and it acts in very different ways at classically viewable scales than it does at subatomic levels; and it forms quanta that exhibit properties of waves or particles, which can become entangled in ways that allow the entanglement partner to be influenced at distances that defy the concept of locality, challenging the work of both Albert Einstein and Isaac Newton. Instantiations at certain temperatures and conditions can smear particles across probability spaces in ways that defy the Aristotelian notions of particularity.

Questions about how matter relates to creation and deity are some of the central concerns of Mormonism which offer provoking speculation, as noted above, and are perhaps best viewed with Whitehead's assertion, 'The worship of God is not a rule of safety – it is an adventure of the spirit, a flight after the unattainable. The death of religion comes with the repression of the high hope of adventure' (Whitehead 2011:192).

Mormonism and Matter

What then are Mormons claiming when they say that God is made of matter? The most basic commitment is to something that allows relations to form between and among physical substances. This aspect of theological concern should not be underestimated because it forms the foundation underlying many of the reasons for considering the importance of materialism and embodiment. Matter forms fields, such as electromagnetic and gravitational fields, that allow matter to influence, touch, be entwined with, react to, push, or pull other forms of matter. Within Latter-day Saint theology there is no commitment to the ultimate material nature that physicists try to explore, but there is a claim that something grounds physicality and is amenable to forces that embrace notions of God's and our material abilities to form relationships in our mutual embodiment.

Another aspect of matter, strangely unique at the macrolevel is its ability to form life, a configuration of molecules that differs from any other class of object. Life uses information, energy, and constraints to navigate through complex environments, has teleological aims and parts, is able to grow in complexity and generate novelty in form and function and, most importantly, forms autonomous agents. Of particular interest is the ability of matter to form organic bodies that can grow, reproduce, and change. At the heart of the Mormon interest in theologies of matter is the idea of bodies, especially the formation of bodies, including divine, human, and non-human.

Earthly bodies form the bases of life, and its role in Mormon theology claims that it is paramount for understanding God's purposes and nature. To see that, we turn to the question, 'What can bodies do'? What does the science of biology say about its purpose? We turn to that question from a scientific perspective and explore how it feeds into Mormon ideas of embodiment.

What Can Bodies Do? What Are Bodies for? Mormon Theology of Bodies

Gilles Deleuze paraphrases Spinoza's saying, 'We do not even know what a body can do', when he asks, 'What does Spinoza mean when he invites us to take the body as a model? It is a matter of showing that the body surpasses the knowledge that we have of it, *and that thought likewise surpasses the consciousness that we have of it*' (Deleuze 1988:18; emphasis added). Unpacking what a body does and is, as its implications theologically benefit from a look at what science thinks it is and does, with an eye to how bodies develop, are formed, and have evolved.

First, biology and the philosophy of biology conceive of biological individuals as short-lived, temporal processes. This view contrasts with common sense conceptions of bodies as objects, as interacting configurations, or assemblages of material parts. It is also a move away from a Cartesian conception of living bodies as machines. However useful the Cartesian metaphor may have been for the advancement of science in the past, it misses too much (as Deleuze notes in the above quote), especially in light of recent findings about how organisms develop and emerge from genetic precursors. Embryonic development has been found to be more complex and emergent than the story of DNA coding for proteins that simply assemble as organisms. This change in perspective also necessitates a move away from reductionism and determinism and a return to the organism *qua* organism – an emergent, vibrant entity in constant exchange with matter and energy in ways that differ from those in any other configuration of matter found in nonorganic assemblages. These metabolically active processes are structures that maintain themselves far away from thermodynamic equilibrium, that is, they use energy in ways that allow them to repair themselves and maintain stability, and most important for considering their agential aspects, they are intrinsically purposive. Agency is a key aspect of the existence of all human beings and even God in Mormon theology, opening the question, 'In what ways are living bodies composed of matter important to understanding agency? What are the different ways bodies can be viewed?'

Feminist Perspectives on Bodies

Some of the most remarkable work in thinking about material bodies is coming from a group of feminists working to bring bodies – human, nonhuman, and even cyborg bodies – back into conversations about existential values. These thinkers bring insights into feminism itself but also offer provocations and questions about why science, religion, and structures of discourse and power have so often ignored material bodies. Their work provides a compelling springboard to understand what is at stake in agency as an emergent biological process and how agency informs general questions about embodiment that may be relevant to theology, especially in liberation and womanist theologies of trauma. In the introduction to their edited volume, *Material feminisms* Stacy Alaimo and Susan Hekman argue that the materiality of women’s bodies is the locus of many of the experiences of women (Alaimo & Hekman 2008:3).

Karen Barad has also developed a framework called agential realism for understanding embodiment on the basis of the work of Niels Bohr. Barad (2008:128) states, ‘What is needed is a robust account of the materialization of all bodies – “human” and “nonhuman” – and the material-discursive practices by which their differential constitutions are marked’.

These thinkers recognize that life is embodied in matter and that *how* life is embodied has ramifications for understanding and contextualizing that life. By trying to untangle the complexities of what it means to be a living thing through an understanding of mattered, biological organisms, much can be gained over and above purely discursive methods of elaboration on these ideas. Material feminism is interested in matter ‘becoming’ the vibrant, active, evolving, environmentally conditioned, ecologically active, emerging thing as it is instantiated in life and possibly in other agential manifestations, such as artificial intelligence or digital life. Agential life is recognized as pulling together the possibilities of purpose and teleology in the universe, in terms of both the constituent parts of life and the organism’s agency. The parts of bodies are easily described as functional – a heart is for pumping blood, an eye is for seeing – and thus have an explicit teleology. Moreover, agents themselves have aims and desires. With the appearance of life on earth, for the first time in the history of the universe, matter acquired genuine teleology, as Elizabeth Grosz argues in her discussions of the evolution of life on earth (Grosz 2008:23-51).

In addition, womanist theology has emphasized how embodiment has to be conceptualized as an active theological principal if we are to understand how trauma, power relations, and liberation theologies are to be conceived as part of God's interaction with, in particular, women's bodies (Isherwood & Stuart 1998).

Latter-day Saint theologian, Deidre Green has argued in her work on Jacob within the *Book of Mormon* that understanding embodiment provides a source of knowledge unavailable in other ways:

The inestimable value of each human being attested by the death of Christ includes the body and the eternal relationship between an individual and Christ that is formed through their shared embodied experiences. Also valuable is the knowledge attained through the body that cannot be gained in any other way...Jacob is at pains to communicate that intelligence is located within the body and that a resurrection is required to retain that intelligence post mortally. In other words, neither minds nor spirits are the sole location of knowledge; there is knowledge about how to be in the world that is received through the body and necessarily remains in the body. This teaching implies that some truths can never be extrapolated from our embodied experience into rational thought; rather, this knowledge is forever only available through the body (Green 2020:26-27).

She further argues that this is true of humans and of Christ whose mortal life taught him things about existence that was only available, and only remains available, through the physical body.

This work articulated by the feminist theory about the importance and relevance of looking at the embodied nature of being, may be theologically relevant because its arguments overlap with the idea that being embodied is what defines existence in the way that it offers challenges and brings joy in existence. Mormonism accommodates the possibility that embodiment reflects a divine attribute and condition of God's existence and asks: What if we are embodied in matter because it is part of the *imago Dei*? It is a thought experiment that Mormonism seems to take seriously because it is imbedded in many of the aspects of Latter-day Saint conceptions of divine life and interaction with God – especially in their notions about agency.

Material Conceptions of Agency in Biology

To understand embodied agency with an eye on Mormon theology, I begin by outlining how life becomes capable of forming teleological and purposeful actions – and perhaps how natural values entered the universe. Early 20th-century philosopher, Henri Bergson argues that evolution is creative (Bergson 2007). Bergson points out that three things must be explained if we are to understand life as it exists on the only planet we have closely observed. These have once again become relevant in the modern biological synthesis of embryotic development, ecology, and evolution (often referred to as Evo-Devo-Eco): 1) The purposeful nature of individual organisms and their parts; 2) the integrative, holistic, nonlinear emergent dynamics seen in evolutionary processes; and 3) how genuine novelty emerges in the universe (Peck 2019a:541-557).

Bergson has realized that this drive towards greater complexity, autonomy, and freedom of action itself was implicated in the evolution of a greater organismal telos, desire, and freedom. He has also pointed to insights still being grappled with in evolutionary biology. His work includes ideas of emergence, the generation of novelty, and the recognition that organisms have purposes, desires, and aims. Most importantly, it portrays the universe as open, nondeterministic, and filled with possibilities that have never existed as realities and may never exist as such, and in ways that subvert reductionist tendencies in science, especially when it comes to the surprising form that matter takes in instantiating life. A philosopher of science, Denis Walsh says of life on earth,

Moreover, these forms and activities exhibit a feature unique in the natural world; organisms are exquisitely suited to their conditions of existence. They are highly complex stable, adaptive, purposive systems. In the pursuit of their goals organisms possess a prodigious array of capacities. They are self-reproducing, self-building entities. They manufacture the very materials out of which they are constructed. These structures, these activities, this diversity, set organisms apart in the natural world. Organisms are natural entities to be sure, but they are no run-of-the-mill material things (Walsh 2015:1).

These three aspects of life that Bergson mentions above, first appeared in the geologic epoch known as the Archean (2.5 to 4 billion years ago), when indi-

viduality first evolved. Individuality precedes agency and is a prerequisite for its development. The idea of an individual in biology focuses on attributes found only within life. These attributes include not just a confederation of objects but also processes that have a telos not found in abiotic concepts of the individual. Life on earth went through a series of transitions from replicating chemical elements to being characterized by confederations of organelles and subunits that eventually became integrated and worked together to create biological entities. Leo Buss points out that these transitions in evolutionary history were conditioned on a back and forth between different levels of selection being found between different cellular organisms joining forces and specializing roles and functions in surviving (Buss 1987:171). The development of organs and the integration as of the whole organism as an individual unit became the signature development of multicellular organisms.

With the emergence of multicellular individuals, the stage is set for agency – matter in the universe develops purposes geared to survival and navigating complexity. Agency is also a key theological concept for understanding God’s action in the world. That the created universe has the capacity for agency to emerge, therefore, should not come as a surprise if, according to Latter-day Saint theology, it reflects this attribute of God.

Agential Action in Biology

Part of this move toward agency in living things is explored in recent work on what constitutes autonomy. Autonomy emerges under certain constraints and positive feedback loops in energy exchange. These processes are articulated in detail by Alvaro Moreno and Matteo Mossio in *Biological autonomy* (Moreno & Mossio 2015). Life constrains and uses energy to maintain its functional coherence and continuance. It accomplishes this task through metabolic pathways that create constraint closure, a closed loop that allows processes to continue, thus allowing the organism to obtain and channel energy and materials from its environment to support its survival and maintenance. This process creates an ‘emergent regime of causation’ that allows us to view these constraint cycles as a ‘grounding of teleology, normativity, and functionality’ and creates an autonomous ‘causal regime’ (Moreno & Mossio 2015:197-198). While these events do not require multicellularity, when achieved, it creates a higher-level autonomy, a foundation necessary but not sufficient for agency. This level of autonomy creates the basal conditions for

goal-oriented behavior, that is, aspects of the environment take on values of concern for the organism.

Daniel Nicholson adds several observations about individual organisms that distinguish them from other processes found in the universe (Nicholson 2018). First, organisms because they are dissipative structures far away from a thermodynamic equilibrium, must maintain themselves in a steady state by acquiring and using energy. This condition requires constant activity. To accomplish this activity, organisms are always engaged in a metabolic process. Second, such organisms require constant self-maintenance and repair to maintain their bodily forms. Third, they have a cross-generational identity, indicating that an organism's offspring resembles its parents (with suitable variation due to sexual reproduction, mutation, and genetic drift).

Nicholson points out that organisms and machines differ because organisms 'are *intrinsically purposive* (in the sense that their activities and internal operations are ultimately directed towards the maintenance of their own organization), whereas machines are *extrinsically purposive* (given that their workings are geared toward fulfilling the functional ends of external agents)' (Nicholson 2018:141).

Barandiaran, Di Paolo, and Rohde have identified three necessary conditions for something to be considered an agent: 1) The entity must define its own individuality, as described above; 2) it must 'be the active source of activity in its environment (interactional asymmetry)' (i.e., it is not directed by outside forces); and 3) 'it must regulate this activity in relation to certain norms (normativity)' (Barandiaran *et al.* 2009:367-386). These conditions are general enough to recognize even a filamentous single-cell bacterium swimming toward the light, the place where its evolution has conditioned it to look for food, as an agent. If one adjusts the requirement of individuality in the given three necessary conditions of Barandiaran *et al.* to match the distinction that Nicholson makes about individuals in the previous section, a more complete understanding of theological agency presents itself. Could this understanding of God's attention in creating a universe to be a place in which agency emerges into the world, be a stamp of the *imago Dei* on humans?

Agency in Mormon Theology

In Mormon theology, agency plays a key role. Alma, from the *Book of Mormon*, gives this aspect of divine action context:

Wherefore, he gave commandments unto men, they having first transgressed the first commandments as to things which were temporal, and becoming as gods, knowing good from evil, placing themselves in a state to act, or being placed in a state to act according to their wills and pleasures, whether to do evil or to do good (Book of Mormon 2000: Alma 12:31).

Here Alma connects the idea of agency with a key attribute that defines human agency – what it means to be created in God’s image. In this Mormon scripture, agency is seen as an aspect of human ‘becoming’ that draws a person closer to being more like God. In Mormon parlance, the plurality of Gods expressed here could be considered as the three members of the Trinity and the divine feminine personage, Mother in heaven. The biological insistence that agency is rooted in individuality is reminiscent of the way Mormon theology insists that the Trinity is composed of radically individual personages who are united in purpose, desire, and intent, but separate entities, nevertheless. Therefore, because they are composed of matter, they are considered entities: They have boundaries; they are wholes composed of teleological parts (not simple) that are unique to their being, and they act with separate agency and will, although their wills coincide completely.

Agency is regarded as fundamental to the purposes of God. In the Mormon scripture known as the *Pearl of Great Price*, revelations given to Smith and attributed to divine influence replace missing pieces of the book of Genesis from the Hebrew Bible. A notion of human agency, as a preexistent attribute of ‘intelligences’, and which is shared with God, is used to assess these beings’ potential to become like God. In Mormon theology it is thought that God is making decisions here and allowing the agency of humans to be ‘proved’ in the sense of an experiment on their actions.

Biological conceptions of agency locate agency as bodily action. It is distanced from some sort of algorithmic ‘choice’ model, resembling a computer located in brains to a bodily concept that draws on the organism’s evolutionary history, its ecological context, and its genetic relations, thus acknowledging that the organism has aims, purposes, and teleological goals that buy into Aristotle’s notion of teleology, ‘that for which it was made’. As is seen in the Mormon scripture cited above, this feature is deep in Latter-day Saint theology.

Natural Processes and Insights that Bear on the Nature of Deity in Latter-day Saint Thought

What the biological evolution of agency in the universe seems to suggest is an intrinsic, emergent feature of the grounding conditions of matter. If one embraces, like Mormonism does, an ‘enmattered’ deity, then these features of the universe may reflect that deity’s embodiment as well, especially with the view that humans are created in the image and likeness of God.

There are also reasons to think that the biological paradigm of agents as a whole-body process may be useful in exploring questions about agential free will. Biological accounts have focused on concepts such as purposeful action in organisms, aims, and the navigation of the rich reality in which biological organisms find itself. For example, consciousness, in all its strange complexity, may be life’s solution to navigating these multiplicities.

In thinking about agency, that Mormonism’s conception of spirit/soul as both composed of matter, partakes of a strange dualism because of the Latter-day Saint commitments to a preexistent soul/spirit before earth’s creation. Because there are few formal articulations of the nature of this preexistent spirit creation and subsequent embodiment, however, it may yet be articulated in ways that are less dualistic. The Mormon philosopher, Adam Miller speculates that the preexistent spirit is less an entity than a process: ‘Spirit is itself manifest as a complex network of interlocked by semi-autonomous processes of thought and feeling. In particular, spirit is manifest in those patterns of desire that combine judgement and feeling in particular orientations toward the world’ (Miller 2016:42-43).

Mormon Material Theological Perspectives: Creation, Becoming, and Life

Mormonism holds that deity is a material agent. The heavenly Parents, as well as Christ and the Holy Ghost can be described as meeting the requirements of deity both individually and together. The Godhead meets the necessary conditions for an agent as defined by Barandiaran *et al.* (2009:367-386): 1) The Godhead defines its own individuality separately and as an entity; 2) it is an active source of activity in its environment (which in this case is, in part, also the source of that environment); and 3) it regulates its activity in relation

to certain norms (God has purposes)³. These notions of agency seem necessary considerations if Mormons and other Christians claim that God is an agent materially embodied. This leads to an important thesis noted by theologian Meredith Minister:

A material trinity that is dynamic is located in space and time. To locate the trinity within space and time suggests that God acts in the world without appealing to an underlying mind, will, or organizing principle. By refusing to appeal to an undergirding mind or will in order to explain the activity of God in the world, a material trinitarian theology locates agency, change, and process within physicality itself, as opposed to some foundational mind or will. To affirm that the trinitarian persons act in the world is to (radically) claim that they are material because agency is inseparable from materiality. Because a material trinity is located within the physical world, theologians must continue to do theology in light of science (Minister 2014:140).

Mormonism has likewise abandoned Platonic and Neoplatonic conceptions of deity (albeit reluctantly, as classic trinitarian concepts of God syncretically appear in several Latter-day Saint writings, including those by some of its leaders). Moreover, Mormon theology claims God has a body, has teleological aims, and is composed of teleological parts. Mormonism takes the metaphor of human creation in God's image more earnestly than other Christian conceptions, in terms of both form and composition. In line perhaps with historian of ancient Christianity Christoph Marksches' monumental study of God's body in Abrahamic traditions, he shows that a corporeal, anthropomorphic God has been the view from ancient times to elements of the present (Marksches 2019:319):

The notion of a human body of God is perhaps the most potent form by means of which the antique imagination of a divine body survived the strident religious and philosophical criticism of the divine image and moreover, perhaps the most radical manner in which the original-

³ There is a not a single term that captures all the members of the Trinity and Mother in heaven. Therefore, in what follows, when I refer to the Godhead or God, I include all of the above.

ly Jewish idea that humanity was fashioned in the likeness of god contained to be entertained: The divine body is exactly the human body – and *vice versa*.

He goes on to point out that ‘[t]he concept of God’s corporeality in Mormonism represents a key theological theme’ (Markschies 2019:322). Markschies then quotes Catholic theologian, Stephen Webb’s assertion that dialogue with Mormons is necessary, and Webb’s question of what would have happened if the ‘anthropomorphites’ of Late Antiquity have triumphed in the struggle [to promote a corporeal God]’ (Markschies 2019:322).

Questions about first cause have been abandoned in Latter-day Saint theology for a more relational view of God’s action in the universe. The relational structure of the universe resonates with current understandings of science as one of an evolving relation among temporal assemblages of matter in process. From this perspective, God is a product and perhaps an emergent actor in the universe. As Webb suggests, ‘What would happen if we thought of matter as the stuff that makes relationships possible, including our relationship to God? What would happen if we thought that matter and spirit are just different names for the same thing, depending on how you look at it?’ (Webb 2013:8).

As a result, Mormon forms of embodiment imagine a God who is interested in relationships and is changed by it, in forms consistent with current scientific conceptions of the material universe. Latter-day Saint theology still embraces, despite its anthropometrism, the conception of a caring Godhead embedded, as we are, in temporal processes and is not viewed as omniscient or omnipotent but as one who performs agential actions of love – one act in particular being creating the universe in which we live.

The notion of a material feminine deity in Mormon does work in providing relationships for all genders to find an opportunity to relate with a non-male deity. Alley Moder explores how trauma victims have trouble relating to traditionally conceived male deities, including conceptions of Christ and God as Father. An explicit non-male deity does work in helping to heal relationships caused by male actions that have caused trauma (Moder 2020).

This Mormon conception affords an ecological view of the Godhead, in which relationships among all the inhabitants of earth – plants, animals, and the myriad kinds of creaturely life, as well as human life – are of concern. This ties science to theology because God also has relationships with

material structures of many scales, such as societies, institutions, and networks as such. A God of materiality and embodiment, then, has relationships with all of the material constituents of God's creation, not becoming one with it, as may be seen in a Spinozian theology, but also not utterly transcendent as is found in more Plotinian structured theologies. God becomes embedded relationally in the ecology of the material universe as an agent who can influence all the other agents. This role is seen most clearly in Mormon Christology, where the agential aspect of Christ is always conditioned on love, and love is the basis for all action on the part of the Godhead. A material conception of deity who is part of the unfolding of the universe, makes matters of ecology especially important because the ecologies and creatures that have emerged from processes requiring deep time are not necessarily formal instantiations of creation, but novel emergences in which God takes surprise and delight. This makes the sciences of ecology, conservation, and climate change relevant to aspects of creation like stewardship and placing scientific activities in the purview of theological considerations that take seriously the time it takes for God's ongoing creation (Handley 2001; Peck 2011; Brown 2011; Handley 2011).

In addition, other aspects of science tie directly to Latter-day Saint theological perspectives. As Minister claims above, if God is composed of some fundamental material and embodied, it implies that all actions take place in time and in space. This idea contrasts with the concept of the block universe as articulated by both Augustine and Einstein. In their view of cosmology, space-time is completely given, so that the past and future are fixed at creation and only the perspectival stance of an agent embedded at a particular location in space and time produces an illusion of time passing as a flow. In Einstein's block universe, the equations describing the state of the universe can be run forward or backward; all that follows in either direction is determined by the current state of the situation. Pierre-Simon Laplace claimed that given the position and momentum of everything in the universe, he could predict the future or the past with perfect fidelity. This claim comports with the Augustinian view of an omniscient God who sees all events that unfold from beginning to end.

Recent work in both physics (cf. Smolin 2013, 2019) and as argued above, biology, suggests that the universe is subject to historical forces in which the future is not determined but rather unfolds in what Stuart Kauffman has coined as the 'adjacent possible' (Kauffman, Logan, Este, Goebel,

Hobill, & Shmulevich 2008: 27-45). In this view, the creative nature of the universe is manifest in this multiplicity and novelty, and genuine novelty emerges through the forces of evolution. Keith Ansell-Pearson, in articulating Bergson's view of this temporal evolutionary process, states,

The time of life is absolute in the sense that the dimensions of past, present and future are not simply relative to a particular form or life or living creature. It suggests rather that the *evolution of life* is a unique, irreversible process. This 'life' is one in which the whole history of the universe participates, and the same events could only recur 'in artificially isolated systems'. The cosmos is not given but becomes and the universe does not simply 'have' a history, *it is its history*. The temporality of time conceived as the process of life in its unique, irreversible becoming cannot be existentially relative to life since 'it is the form of the process of life itself' (Ansell-Pearson 2002:69; emphasis added).

The idea that the Godhead is historically embedded, offers a sense that God acts historically and is changed and conditioned by and engaged in history. For example, the historical event of the incarnation is historical for both the Divine and those created as children and creatures.

One aspect of a material deity that may be unique to Mormonism is the evolutionary idea of familial and phylogenic relationships that continue after death and entwine God's material nature with human material nature: The Mormon notion of creating eternal communities and connecting individuals through sealing ordinances to establish an eternal working relationship with God to ensure greater love in the universe and to further divine purposes and aims (for a complete description of this idea, cf. Stapley 2018).

Latter-day Saint thought still seems to be struggling with how to incorporate their insights into God's material, time-embedded nature and into their own emerging theology, which rests only on a revealed ontology rather than being derived from scientific work on material bodies. Radically, Mormon materialism places the origin of the universe before God, but God becomes a part of the universe's processes (with 'universe' here conceived as a cosmos more expansive than in whatever space in which the big bang took place). That God partakes of life makes God a part of divine ecology, placing

God as a steward of life's processes and making humans partners rather than mere creations.

During this formative period, while Mormonism is in the first stages of theological engagement with its materialism, there are possible dialogues with other religious traditions, looking at mattered and embodied conceptions of deity, including trinitarian ones that may open productive resonances among differing theological interests and engender productive discussions about differing theological possibilities.

Challenges for Mormon Materialism

There are yet several challenges to Mormon material theologies in conversation with science and other materialist views. Three specific challenges come to mind. First, it demands that matter must precede God. Early Neoplatonic and Christian thought includes the idea of *first cause*. Material conceptions of deity, especially embodied conceptions of the Trinity, call for an organismal and even biological conception of God. There is much work to do in order to make this conception theologically coherent, if that is even possible. This work may include ideas that consider God to be an emergent feature of the universe, framed by preexistent relational aspects among the universe's fundamental constituents. Webb, a Catholic theologian, however, suggests that there may be less to worry about for Mormons than first appears:

If God is the master of matter, then no matter how God has come to be God, God's ability to form the cosmos out of preexisting matter is a sign of God's freedom from material constraints. After all, according to Mormon metaphysics, God is who he is precisely because he has exercised his freedom in the most maximally powerful and creative manner. God has come to understand the eternal law so well (indeed, coming to understand it is what makes him God) that he is not, whatever path he has taken to the status that we know him to have, bound by it. It would seem, then, that God is both free from and subjected to the same law (Webb 2013:200).

The notion of God coming into being from preexistent material has a long history, from Jacob Böhme to Friedrich von Schelling and other modern thinkers (Böhme & Waterfield 2001; McGrath 2013). Perhaps relevant is Catherine Keller's theomic theology, especially in light of her consideration

of the divine feminine emerging from chaos, which is rich with possibilities for the emergence of deities from mattered priors (Keller 2003). Keller's rich exploration of chaos, emergence, and self-organization may provide fertile ground for theologies of matter like that of Mormonism. However, attention to this aspect of Mormon thought needs greater nuance.

Second, gender and sexuality are being completely rethought in Mormon theology. Gendered bodies and the implication of nonbinary genders are also important in the scientific aspects of biology. In addition, as scholar of religion at Kalamazoo College, Taylor Petrey has pointed out that Mormon theology has rich resources for imagining a nonbinary conception of postmortal bodies (Petrey 2011:315–341). That biology, which is informing Mormonism on this issue, has not been detailed to any great degree with most gender studies in Mormonism nestled snugly within the humanities and social science. This is not a complaint, but rather a call for further engagement. In an excellent volume on Mormonism and gender (Petrey & Hoyt 2020), none of the nine theological essays engage with the science of biological sexuality, the evolution of such, or in the rich contribution that the biology of sexuality has informed queer studies. This presents an opportunity for more theological work that takes evolutionary biology seriously.

Third, the rich power of materialist theologies on ecology can serve as a call for a deeper engagement with God's ongoing creation. The power of theology productively engaged with science is exemplified by Whitehead's work. As mentioned above, there are deep resonances between Mormonism and Whitehead's panentheism. An important part of that is the opportunity afforded by both to explore the creative, evolutionary, and ecological novelty so prevalent and beautifully expressed in the universe and its creative expression. Stengers explains an idea that Whitehead often expressed, that both science and theology are important to framing concepts of creativity – that both are valuable modes of expression. She argues that recognizing both ways of knowing, helps to express a deeper level of engagement for each (Stengers 2011:256). Whitehead argues that if Providence is defined as the author of a predefined totality that mechanically cycles through all possible combinations, then there is something suspect about calling God 'creative'. Stenger adds, 'Yet if God is a creature of creativity, he must exemplify, more than anything else, the reason why Whitehead confers the status of ultimate upon creativity: he is what will spell out and illustrate all novelty *qua* irreducible' (Stengers 2011:473). This is an idea deeply embedded in Mormon theology.

The ecological and biological novelty we find in the world is not created merely to be discovered or to provide evidence for divine action but is also a part of God's nature and being in which we participate. Through science, art, and other expressions of divine nature, we mold and frame matter into novel creations in a like manner to God.

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