“THE FAÇADE OF IMPENETRABLE MYSTERIES”: C.S. LEWIS, LITERARY MODERNISM, AND THE NEW PHYSICS

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ABSTRACT

In C.S. Lewis’s 1964 book The Discarded Image, he writes that the modern imagination contains “little of Einstein,” and yet in Letters to Malcolm, published the same year, he uses the new physics to facilitate contemplative prayer and even sketches out a hypothesis for a post-Einsteinian resurrection and afterlife. In the first decades of the twentieth century, Einsteinian physics launched a destabilizing revolution that contributed to the prevailing mood of modernist disillusionment and, being incomprehensible to most people, inspired a wave of scientific popularizations, each with its own agenda. These ideas in turn manifested themselves in the forms and images of literary modernism in writers like Eliot, Joyce, and Yeats. In my thesis, I engage with the growing body of work studying the intersection of Einstein’s physics and literary modernism and provide close readings of works by Lewis and his modernist contemporaries to explore how Lewis, despite his vocal disdain for modernism, used the literary tropes and metaphors associated with the new physics to sidestep the prevailing mood of despair and provide his own uniquely Christian perspective on popular scientific discourse. By theologizing such Einsteinian themes as the unvisualizability of space, temporal relativity and simultaneity, the limitations of subjectivity, and the breakdown of causality, Lewis is able to craft striking visions of heaven and hell alike. Lewis, I argue, makes popular interest in the new physics, so often a source of anxiety and alienation, into a means of turning the imagination toward God.
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INTRODUCTION: A DINOSAUR AMONG THE MODERNISTS

“And who ever heard of a new scientific discovery which didn’t show that the real universe was even fouler and meaner and more dangerous than you had supposed?”

– C.S. Lewis, The Dark Tower (49)

“Above all, do not attempt to use science (I mean, the real sciences) as a defence against Christianity. They will positively encourage him to think about realities he can’t touch and see. There have been sad cases among the modern physicists.”

– C.S. Lewis, The Screwtape Letters (186)

A cursory examination of the life and works of the Anglo-Irish literary scholar, novelist, and Christian apologist C.S. Lewis would likely give the impression of a man entirely uninterested in modernism or the modern world in general. This view is not without truth or scholarly support. In The Rhetoric of Certitude, a rhetorical study of Lewis’s nonfiction prose, Gary L. Tandy quotes Lewis’s characterization of himself near the end of his career as an “Old Western man” and a “dinosaur” and suggests that Lewis’s “adoption of the minority/outsider role may have begun early in his life” (2-3). Tandy goes on to quote John Wain, an acquaintance of Lewis’s, who observes that Lewis, even before his 1931 conversion to Christianity, “noticed the 1920s only to draw away from them in hostile dissent” (4). The dissent is evident in Lewis’s romantic, conventional, and largely unsuccessful lyric cycle Spirits in Bondage—published in 1919—and in his claim in one interview that he had read very little of authors like Ernest Hemingway and Samuel Beckett (Tandy 18, 19). Lewis’s hostility toward modernism comes to the foreground in his first post-conversion work, The Pilgrim’s Regress. In the running header he added ten years after publishing this 1933 retelling of John Bunyan’s allegory—updated to include Freudianism, Marxism, and a thinly-veiled T.S. Eliot among its antagonists—Lewis lumps modernist literature into three categories: the absurdist, blasphemous “poetry of the Silly Twenties,” the “swamp-literature of the Dirty Twenties,” and the “gibberish literature of the
lunatic Twenties” (Brown 11; Pilgrim’s Regress 45-48). To these three categories, he adds the accusation that modernist art is of intentionally ugly when he names the domain of the modernists “Eschropolis,” Greek for “ugly city” (Smilde). It seems natural that a traditionalist like Lewis would show little interest in a literary movement in which he found nothing but mockery, obscenity, and nonsense.

The longstanding tension between Lewis and Eliot, which extends far beyond Eliot’s veiled appearance in The Pilgrim’s Regress, provides an excellent illustration of Lewis’ attitude toward literary modernism in general. In The Lion in the Waste Land, Janice Brown devotes several pages to chronicling Lewis’s responses to Eliot’s poetry, beginning with his attempt in 1926 to write a “nonsensical parody” of “Eliotic” poetry and trick Eliot himself into publishing it in The Criterion, and continuing through Lewis’s characterization of Eliot as “one of the enemy” in a letter to a friend (9, 10). In his 1954 inaugural lecture at Cambridge, Lewis complained that modernist poetry had become so private as to be incomprehensible to the point that a symposium dedicated to studying Eliot’s “Cooking Egg” could not even agree on what the poem meant (Tandy 2). All of these criticisms come together in one of Lewis’s poems, which Walter Hooper’s collection calls “A Confession,” but to which Don W. King’s edition gives the original title—“Spartam Nactus.”¹ The latter title—which consists of the first two words of a Latin quotation usually translated as something like “your lot is cast in Sparta, be a credit to it”—suggests Lewis’s belief that the modernists are traitors derelict in their duty to the old world. The

¹ King actually gives the title as “Spartan Nactus,” with an “n” instead of an “m.” See Appendix A for the evidence, drawn from bibliographic research and from one of Lewis’s letters, on which I base my claim that Lewis intended for the poem to be called “Spartam Nactus” and that “Spartan Nactus” was an error committed in the course of the poem’s original publication.
title “A Confession” makes a similar point by exemplifying the contrarian stance of false self-deprecation Lewis adopts to mock one of Eliot’s most famous poetic images:

I am so coarse, the things the poets see
Are obstinately invisible to me.
For twenty years I’ve stared my level best
To see if evening—any evening—would suggest
A patient etherized upon a table (1-5).

He later adds that “Waterfalls don’t remind me of torn underclothes / Nor glaciers of tin cans,” parodying modernist poetic imagery in order to accuse modernism once again of obscenity and intentional ugliness, although his primary target is the modernists’ elitism and rejection of tradition (14-15). Lewis ends the 1954 poem with a list of the conventionally beautiful “dull things” that make up his stock of poetic images, such as “peacocks, honey” and “wave on the beach,” and ends the list with “Troy, Jerusalem” (28-30). Here, Lewis makes the claim that he, the dinosaur, is still firmly rooted not only in aesthetic beauty—as opposed to what he saw as the intentional tawdriness of modernism—but also in the Classical and Judeo-Christian foundations of Western Civilization, both of which he accuses modernists of having abandoned.

Along with his rejection of literary modernism, Lewis also expresses skepticism as to whether modernism was a proper response to the cultural and historical forces that produced it. In *The Pilgrim’s Regress*, one fat, drunken modernist declares while “smiling happily” that “Reality has broken down,” after which another claims that their art must be “stark and brutal” because he and his comrades “lost [their] ideals” in a recent war in which he is clearly too young to have fought (48). Coming from Lewis, who spent his career “working against [modernist]
paradigms of fragmentation and disillusionment” despite having been wounded in World War One, this accusation of insincere, pretentious adherence to a mere fad hits particularly hard (Hogsette 4). This rejection of the supposed necessity of modernism as the only valid response to a changing world is also evident in Lewis’s religious views. Lewis himself was an Anglican, but devoted his public theology to the defense of “mere Christianity,” which he defines in his book of the same name as “the belief that has been common to nearly all Christians at all times… which is what it was before I was born and whether I like it or not” (Mere Christianity 6). Despite this ecumenism, however, Lewis was on almost every issue a staunch theological conservative, as evidenced by the emphasis that his definition of mere Christianity places on tradition and continuity. Tandy describes Lewis as a public theologian who “reserved his most vigorous attacks… for the liberal theologians” whose “central goal… was to reconcile the Bible and modern thought” (16). Lewis, by contrast, saw no more reason that cultural shifts should render supposedly problematic doctrines like the Virgin birth, the literal Resurrection, and the inspiration of Scripture obsolete than that they should obviate pre-modernist literary conventions.

At other points in his oeuvre, Lewis seems to express a similar lack of interest in engaging with the scientific wellsprings of literary modernism. In The Intellectual World of C.S. Lewis, Alister E. McGrath argues that “Lewis’s later writings”—by which McGrath seems to mean anything Lewis wrote after the early 1920s—“show little interest in understanding recent developments in… the physical… sciences,” though McGrath also points out that those same writings express annoyance at how popularizers had “hijacked” new scientific developments in order to serve particular “social and cultural agendas” (47). One possible proof of McGrath’s claim could be drawn from Lewis’s 1944 essay “Horrid Red Things,” in which he suggests that
the idea of a “conflict between religion and science” is a relic of the nineteenth century that—having been abandoned by “real theologians and real scientists” in the age of Einstein—exists only in the minds of “the ordinary man” (61). Lewis makes a similar point in his 1945 essay “Religion and Science.” In that essay, Lewis stages a dialogue between himself and an atheist in order to dispute the claim that “the picture of the universe which science has given us” renders religion obsolete (68-69). Lewis even goes so far as to suggest that there is a sort of anti-religious conspiracy that uses “histories of science” and “modern encyclopedias” to present a straw-man version of medieval cosmology and “hush up” its true nature so that the modernist cosmos can then be “trotted out as an argument against Christianity” (69, 70). By having his atheist character reference works of popular science that someone without a scientific education would be likely to reference and by presenting him as a dupe to be pitied and enlightened rather than as a formidable enemy, Lewis attempts to reveal the ideological agenda that he claims has infiltrated and distorted popular discourse about science. Lewis seems to be telling his contemporaries to calm down, that the apocalyptic claims of modernism and its accompanying cosmology are overblown and that anyone who endorses them is both unnecessarily alarmist and woefully misinformed. In The Discarded Image, published in 1964 shortly after Lewis’s death, Lewis argues that “Without a parable modern physics speaks not to the multitudes,” suggesting that Einstein’s theories can be variously interpreted to suit the popularizer’s agenda (218). His use of the word “parable” also implies that the new physics, by its very nature, demands to be imaginatively encoded into story and myth. Elsewhere in the book, however, Lewis seems to contradict himself when he downplays the impact of Einsteinian physics on literature:
In every period the Model of the Universe… helps provide what we may call a backcloth for the arts. But this backcloth… includes only what is intelligible to a layman and only what makes some appeal to imagination and emotion. Thus our own backcloth contains plenty of Freud and little of Einstein. (14)

This statement contains—or at least implies—two claims that are important for the purposes of this study: first, that the new physics did not significantly influence the twentieth-century popular and literary imagination, and second, that the new physics made no “appeal to” Lewis’s own “imagination and emotion” and therefore had no impact upon his own writing. Both are false. My response to the first claim will occupy the remainder of this introduction. My response to the second will occupy the remainder of my thesis.

Contrary to Lewis’s suggestion in The Discarded Image that the new physics was too obscure and difficult to have any serious impact on the popular imagination, Einstein’s revolution had an enormous impact across all levels of society precisely because of its mysterious nature. In fact, Katy Price’s Loving Faster than Light provides a book-length study of how the British media and literature of the day interpreted, re-presented, and riffed upon Einsteinian physics. Price marks November 7, 1919—the day after British astronomers announced that they had found experimental proof for Einstein’s relativity—as the day on which the idea that “Newtonian physics had… been overthrown” was first “widely reported in the press,” at which point it was almost immediately “appropriated for diverging political, aesthetic, and moral ends” and plundered for metaphors to describe “everything from railway budgets to religion” (1, 2). This discourse was so pervasive, and its topic so confusing—as evidenced by the ubiquitous “image of a befuddled newspaper reader attempting to explain Einstein’s theory to his
companions”—that it gave rise to “a thriving market in… popular astronomy books” by scientific popularizers (Price 2, 6). Lewis himself acknowledges the difficulty of Einstein’s works when, in one 1958 essay, he equates “readers of Einstein” with “first-rate scientists,” suggesting that readers without a rigorous education in physics would be unable to read Einstein for themselves and would have to turn to the ever-expanding library of popularizations that Price describes (“Rejoinder to Dr Pittenger” 198). As these works flew off the shelves, the battle over what exactly relativity meant was joined.

Never before had there been a scientific breakthrough so equally revolutionary and arcane, and this mixture of excitement and confusion turned relativity into something of a Rorschach test, onto which various commentators and popularizers attempted to project their own ideas. In her book, *The Physicist and the Philosopher*, Jimena Canales observes that the arrival of relativity “marked the moment when intellectuals were no longer able to keep up with revolutions in science due to its increasing complexity,” and it is this lack of settled meaning that made the struggle to define relativity particularly fierce (6). The entirety of Canales’s book explores one famous example of this struggle by recounting the years-long, high-profile intellectual feud between the upstart Einstein and the esteemed philosopher Henri Bergson over the philosophy of time, a dispute which “inspired hundreds of responses” and in which “[f]ew were neutral” (8, 9). With intellectuals of every stripe rushing to either appropriate this mysterious theory for their own ends or else to save their most dearly-held beliefs from its gaping maw, it seems no wonder that widely varying interpretations of relativity emerged, producing great anxiety around the question of who would decide its significance.
Katherine Ebury traces this discourse surrounding relativity in her book *Modernism and Cosmology*. In her introduction, she reaches back to before Price’s 1919 date to observe that in 1916, 11 years after Einstein published his theory of special relativity, “The Monist, a philosophical journal which accepted relativity as early as 1915,” published an essay by T.S. Eliot in which the young poet “refers to Leibniz’s theory of space and time as ‘relativistic’… making [Eliot] the first modernist author to use the word in this Einsteinian sense” (20). Clearly, then, Einstein’s theories had reached the intellectual elite years before the popular press made them available to the common man. Ebury then chronicles how this elite, most notably Eliot and his *Criterion* circle, developed a “modernist disdain for popular expressions of relativity” and used their literary clout against such expressions in an attempt to “keep relativity in the domain of elite culture” even as they themselves “required and used popularisations of relativity” to make up for their own lack of the rigorous mathematical education necessary to understand it in its unfiltered form (7). Unfortunately for the elitists, however, the proliferation of popularizations, usually written in a plain, unpretentious style using commonplace metaphors, ensured that Einstein would soon belong to the people (Price 110). Most notable among these popularizers were Arthur Eddington—who started the craze with his *Space, Time, and Gravitation* in 1920—and James Jeans, but by 1921, “nearly a thousand books, pamphlets and papers” on relativity were in print, each with its “own philosophical agenda” (Ebury 5, 15).

Lewis was right to observe that relativity could not be understood without imaginative engagement and was, along with other scientific theories of the day, constantly accumulating philosophical and ideological baggage, but contradicted himself with his demonstrably incorrect assertion that the imaginations of intellectuals and common men of his day contained “little of
Einstein” (Discarded Image 14). In reality, many perceived relativity as a traumatic confirmation of the modernist idea that old ways of understanding the world were no longer valid.

The wave of Einsteinian popularizations produced no small number of grandiose, cosmogonic proclamations, all of which emphasized dislocation and lent themselves to literary appropriation. As Steven Foster observes in his 1969 study “Relativity and ‘The Waste Land,’” Einstein’s work “demanded the attention of every notable twentieth-century philosopher” precisely because it “broke the old world’s jaw” (77-78). Such violent metaphors of dislocation are commonplace. Ebury quotes D.H. Lawrence, who thanks Einstein for “knocking that eternal axis out of the universe” and freeing people to pursue “moral (and sexual) relativism,” while Price describes relativity’s connection “with the unspeakable loss and dislocation experienced by soldiers” shell-shocked from the Great War as well as with violent political upheaval, as evidenced by “[j]okes about ‘scientific Bolshevism’ in the press” (22; 7, 6). Lewis contributed his own bleak image of a defunct universe with the fat, drunken modernist’s assertion that “Reality has broken down” (Pilgrim’s Regress 48). These examples clearly show that, from its first entry into the public consciousness, Einsteinian physics was seen as being of one piece with the other cultural and historical wellsprings of modernism, such as mechanized warfare of the Western front, the downfalls of ancient regimes, and the breakdown of traditional morality. When science as well as experience confirmed that “difficulty, uncertainty, and inexpressibility were built into… the workings of the universe,” that knowledge could not help but have “a considerable impact on modernist narrative and poetic strategies” (Ebury 9, 3). The new physics was seen as having shattered the old world, leaving survivors huddled among its ruins, trying to
find new ways to describe the new world in which they found themselves, a world fraught with uncertainty yet charged with possibility.

Despite the wide-ranging and hotly-contested nature of the debate over the implications of Einstein’s theories, the influence of Einsteinian physics upon literary modernism depended largely on a few major philosophical and imaginative extrapolations of the theory that were common across most popularizations. All of these extrapolations tended to emphasize dislocation, disillusionment, and disorientation. In his 1942 book *Physics and Philosophy*, Jeans asserted that relativity “showed that… the picture which each observer makes of the world… is subjective,” a claim to which he added a list of six others:

1. So far as the phenomena are concerned, the uniformity of nature disappears.
2. Precise knowledge of the outer world becomes impossible for us.
3. The processes of nature cannot be adequately represented within a traditional framework of space and time.
4. The division between subject and object is no longer definite. . . .
5. … Causality becomes meaningless.
6. If we still wish to think of the happenings in the phenomenal world as governed by causal law . . . these happenings are determined in some substratum of the world which lies beyond the world of phenomena, and so also beyond our access. (qtd. in Foster 79)

For the purposes of this thesis, I will gather these various philosophical conclusions into three categories, which I will then examine in terms of their impact on literary modernism generally before turning to a study of how Lewis—despite his skepticism toward both the new physics and literary modernism—reacted to them. The three categories are *space*, *time*, and *agency*, the latter
of which will be addressed in my conclusion alongside avenues for further scholarship and reflections on the broader significance of this project.

The field of Lewis studies tends to be dominated by proud “dinosaurs” in the mold of Lewis himself, but in recent years there have been several attempts to examine how Lewis responded to certain modernist ideas. In his 2002 book *Paradise Reframed*, Sanford Schwartz suggests that Lewis’s sci-fi novel *Perelandra* should be read “less as an irreconcilable struggle between an old-fashioned Christian humanism and a newfangled heresy than as the effort of a modern Christian intellectual to sustain and enrich the former through critical engagement with the latter” (qtd. in Latta 82). Corey Latta’s 2014 book *When the Eternal can be Met* makes the similar case that Lewis was “intensely interested in secular philosophies of twentieth century” by exploring the influence of Bergson’s theories of time on Lewis’s *Great Divorce* (Latta 77). Although Lewis’s semi-frequent references to Bergson in his letters, his diary, and his spiritual autobiography, have led a few scholars to place Lewis and Bergson in conversation with each other, I was unable to find any scholarly literature exploring the connections between Lewis and Einstein who “is well known and respected today” while “Bergson is much less” (*Letters of C.S. Lewis* 176; *All My Road Before Me* 224, 439; *Surprised by Joy* 232; Canales 9). This lack of scholarly attention paid to Einstein could stem from the almost total lack of references to the physicist is Lewis’s *oeuvre*—although a similar lack in T.S. Eliot’s body of work did not prevent Steven Foster from writing an excellent study of Eliot and the new physics in 1969.

There are in fact, as far as I’ve been able to find, only three uses of the name “Einstein” in Lewis’s works, and even Lewis’s references to Bergson do not mention the feud with Einstein,
focusing instead on Bergson’s concepts of *élan vital* and “creative evolution” (Latta 85).² I would argue, however, that Einstein’s ideas—as filtered through various popularizers—offer possibilities for understanding Lewis that are as great or greater than those offered by Bergson, whose unsuccessful rearguard action against Einstein had, as Canales observes, failed miserably by the 1930s, just as Lewis’s career was getting started in earnest (9). Lewis may have enjoyed reading Bergson as a young man and may even have gleaned insights from Bergson that he incorporated into his later works, but the Einsteinian juggernaut would not be defeated. Wyndham Lewis attempted, to very little effect, to meet the new physics head on, denouncing the “surging ecstatic chaos” of Einstein’s “mystical” theory, which was threatening to supplant “the noble exactitude and harmonious proportion of the European, scientific, ideal… Western heaven” (qtd. in Ebury 18). The French philosopher Jacques Maritain also attacked Einstein’s theories as “intellectual buffoonery” on the grounds that Einstein’s science was “less a kind of real knowledge… than a sort of art and fabricated logic,” but like Bergson and Wyndham Lewis, he had placed himself on the losing side of history (qtd. in Canales 206). It was Einstein’s world now, and C.S. Lewis would have to live in it.

That it was indeed Einstein’s world has been powerfully demonstrated in recent years by a growing body of scholarship on the relationship between the new physics and literary modernism. These scholars do not attempt to grapple with Einstein’s ideas on scientific or

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² Two of the three have already been quoted. The other occurs in Lewis’s science fiction novel *Out of the Silent Planet*, in which one character describes a fictional physicist’s preeminence in the field by saying he “[h]as Einstein on toast and drinks a pint of Schrödinger’s blood for breakfast” (9). It is tempting to argue that this grotesquerie is emblematic of the combative debates surrounding the new physics, but because the same character uses the same bloody metaphors to praise a philologist just a few sentences later, it seems that the quote is of little relevance to the argument of this paper beyond illustrating that Lewis was at least passingly familiar with Einstein and Schrödinger.
mathematical grounds—I do not intend to do so either—but instead focus on how the new physics influenced the artistic imaginations and techniques of various modernist authors. Katherine Ebury’s *Modernism and Cosmology* (2014) traces the assimilation of a radically new conception of the universe into the works of Yeats, Joyce, and Beckett as expressed through such relativistic narrative elements as the temporal distortions of astronomical distances and the impossibility of objective knowledge, while Michael H. Whitworth’s *Einstein’s Wake* (2001) and Daniel Albright’s *Quantum Poetics* (1997) explore how modernist writers like Pound and Eliot mined the new physics for new poetic forms and metaphors, including fractured atoms and the relativity of temporal simultaneity. Although Lewis’s mode of engagement with the new physics typically differs from that of his modernist contemporaries, Lewis also shares more in common with them than his vocal disdain for modernism would suggest.

In both of my chapters—the first devoted to unvisualizable space and the second to relativistic time, with a conclusion addressing the impact of those new spatio-temporal paradigms on modernist and Lewisian understandings of personal agency—I will begin with an explanation of how the popular understanding of Einstein’s physics displaced the traditional discourse surrounding the topic in question. I will then examine how literary modernism gave artistic shape to those philosophical and cosmological shifts. Finally, I will use close readings of Lewis’s works to show how he formulated his own uniquely Christian but not entirely un-modernist response to this new universe, apparently having realized that the indeterminate nature of the new physics all but required him to engage imaginatively with Einstein’s theories in order to push back against their (mis)appropriation by popularizers hostile to Lewis’s religious beliefs. Using this method, which will combine literary, theological, and formal analyses of Lewis’s
works, I will intervene in the fields of Lewis studies and the study of modernism and the new physics, providing a unique perspective on one of the twentieth century’s most beloved authors. By bringing these two fields together, I hope to reveal the influence of modernist cosmology on Lewis’s writing as well as the significance of Lewis’s Christian contribution to the popular and literary discourses surrounding Einsteinian physics.

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3 I will attempt to balance the literary and theological aspects so as to avoid falling into the trap Tandy describes when he pokes fun at Lewis scholar Chad Walsh, whose study “rarely gives any detailed analysis of Lewis’s prose” despite Walsh’s stated desire to avoid “‘the temptation’… to concentrate on the theological content and ‘slide quickly over [the] literary qualities’” (xi).
A NOTE ON ORGANIZATION AND LEWIS’S DEVELOPMENT

For the purposes of this thesis, I will be organizing my chapters thematically rather than chronologically, moving back and forth across the thirty years between Lewis’s first post-conversion work—The Pilgrim’s Regress—and his death in 1963 as I explore his responses to the modernist questions I develop of the first part of each chapter. In my first chapter, I proceed from Lewis’s embrace of the new physics as fertile ground for the religious imagination to his examinations of the tension that results from accepting the limited subjectivity inherent in Einstein’s cosmos while longing for self-transcendence to his imaginative attempts—successful and otherwise—to achieve or depict that self-transcendence. These are complex issues that Lewis does not so much work through as revisit, emphasizing different aspects of them each time he does so. In my second chapter, I spend the first half of my section on Lewis exploring how he uses relativistic time to imagine hellish spiritual conditions and the second half providing and analyzing examples of Einsteinian temporality as spiritually beneficial, but these two subsections do not correspond to phrases within his career. In fact, Lewis alternated freely between his hellish and heavenly Einsteinian visions, sometimes within the same book. In neither chapter would it be useful to examine Lewis’s works in the order in which they were published. Both chapters conclude with a reading of the ending of Perelandra because, in my opinion, that 1943 novel engages with the questions of space, time, and epistemology raised by the new physics in a more insightful and redemptive way than Lewis ever achieved again, though he did often return to those insights during the remaining twenty years of his career.

4 For a list of every work by Lewis cited in this thesis, arranged by year of publication, see Appendix B.
Since Lewis’s thinking on the topics relevant to this thesis seems to have been fully mature by the early 1940s, any attempt to track the development of Lewis’s views on the new physics is unlikely to be fruitful. *The Pilgrim’s Regress* suggests a total lack of interest in the either modernism or the new physics, but from the Space Trilogy of 1938–1945 to the end of his life, there does not seems to have been any sort of linear progression in his views on Einstein’s physics, but rather a series of variations on a relatively stable theme. The clearest proof of this lack of development is the fact that *Letters to Malcolm*, in which his imaginative engagement with Einsteinian physics reaches a level not seen since *Perelandra* and *The Dark Tower* two decades earlier, and *The Discarded Image*—in which he suggests that the new physics provides very little material for imaginative engagement—were both published in 1964.

This is not to suggest, however, that Lewis did not develop at all over the course of his career and that all of his works exist in some sort of temporally simultaneous monolith. There is a tendency among some Lewis scholars to argue that Lewis had two sides to him, which Christopher refers to as “rationalist” or “argumentative” and “romantic” or “mythic,” and that over the course of his career he turned from the former toward the latter (7, 8). There appears to be some truth to this theory. McGrath observes that, after moving from Oxford to Cambridge in the mid-1950s, Lewis began to write devotional works that focused “exploring an assumed faith” rather than apologetic works that aimed at “defending a challenged faith” (*Intellectual World* 130, emphasis in original). While McGrath acknowledges this obvious shift in Lewis’s career, he rejects the claim made by biographers, “primarily A.N. Wilson,” that after losing a debate, Lewis “lost confidence in the rational basis of his faith… abandoned his role as a leading apologist” and
“shift[ed] to writing fictional works—such as the Chronicles of Narnia” (*A Life* 353). The fact that Lewis’s entire science fiction series—including the uncompleted *Dark Tower* manuscript—was written before the 1948 debate is sufficient to render this theory unsatisfactory. It is perhaps true that *Letters to Malcolm*, his final book, provides an instance of the aging Lewis intentionally allowing his arguments—one of which he dismisses as “Guesses… only guesses”—to become more speculative and less rigorous, but in the roughly contemporaneous *Discarded Image*, he offers one of his most thoughtful reflections on popular science, suggesting that his rational faculties had by no means deteriorated (166). Also, his chapter on animals in *The Problem of Pain*, in which he makes liberal use of the word “if” to propose a hypothesis concerning how pets might go to heaven, suggests that even as a combative young apologist in 1940, Lewis was already willing to indulge his imagination (628-637). In his 1947 apologetic work *Miracles*, Lewis makes his only real attempt to engage with physics on a scientific level. Aside from that, his approach to the new physics is largely consistent. There never seems to have been a point in his career at which he was not equally willing either to dispute popular interpretations of Einstein’s theories or to appropriate the images and metaphors associated with those theories for his own spiritual ends.

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5 The biography to which McGrath refers is entitled *C.S. Lewis: A Biography.*
CHAPTER ONE: SPACE

Einstein’s theories raised two major, and interrelated, epistemological issues: the unvisualizability of the universe and the limitations of subjectivity. The advent of the new physics dealt a veritable deathblow to older conceptions of the nature of the physical world and the ability of humans to perceive that external reality. Disorientation became the order of the day. Ebury describes how Einstein’s theories “led to an inherent non-Euclidian distortion or curving of space-time,” the “big impact” of which she succinctly states: “the observer could no longer claim to experience time and space objectively” (3). This sudden rupture between perception and reality quickly became one of the defining features of the popular conception of the new physics. Price provides the example of Arthur Bennett, a book reviewer for the Evening Standard newspaper who complained in an article headlined “Einstein for the Tired Business Man” that “surely space itself cannot be curved” and that although “mathematics can postulate four dimensions, even forty dimensions, and can work out sums in them… no mind can picture more than three” (59). Here, Bennett hits upon one of the key sources of Einstein-induced anxiety: unvisualizability. Not only was the universe impossible to picture, it was impossible to describe as well. Ebury quotes Bertrand Russell, who wrote in his work of Einsteinian popularization that “[o]rdinary language is totally unsuited for expressing what physics really asserts, since the words of everyday life are not sufficiently abstract” (8). Science and mathematics, which had once served as tools for making sense of observed reality, had outstripped observation and now asserted that what we observed was not reality at all. In Einstein’s Wake, Michael H. Whitworth points out that in the nineteenth century, Euclidian geometry was presented in textbooks as the prime example of “man’s power of arriving at truth”
and therefore as “the very foundation of civilization,” both of which were cast into doubt by the Einsteinian elevation of unvisualizable non-Euclidian geometry (199). In a world in which two parallel lines could meet, abstraction was reality and perception was illusion.

Just as the word “relativity” provided ammunition for the continuing late-Victorian assault on objective morality, the spatial abstraction implied by Einstein’s theory seemed to vindicate the subjective epistemology often associated with the philosophical school of Idealism. Indeed, Lewis acknowledges that, in the years following World War One, the Idealist belief “that the whole universe was… mental” was “the dominant philosophy at Oxford” and admits that he became an Idealist himself, having been forced to abandon the position that “accepted as rock-bottom reality the universe revealed by the senses” (Surprised by Joy 256). Although the reasons—which will be explored in my third chapter—Lewis gives for his conversion to Idealism have nothing to do with the new physics, the strong link between Idealism and the new physics makes it highly likely that Einsteinian popularizations either affirmed or precipitated the Idealism of many of his fellow Oxfordians. As Ebury notes, though Einstein himself never linked his theory to Idealist philosophy, Jeans called Einstein’s cosmos “a universe of thought,” Eddington declared it to be made of “mind-stuff,” and “Yeats, Joyce, and Beckett all had a pre-existing interest in… idealism, which made them more likely to be deeply influenced by… these popularizations” (14-15). Canales detects a similar affinity in Maritain when she summarizes his diagnosis of “Einstein’s philosophical bent,” of which Maritain claimed that the physicist himself was unaware, as “transcendental idealism of the worst… type” (206). A universe in which concepts are more real than observed “reality” seems to leave no option but a philosophy in which mind takes precedence over matter. When read alongside each other, both the physics
and the philosophy render individual perception private and incomplete. Albright confirms this connection when he argues that, according to both Idealism and the new physics, “the outer world is sheer hallucination” and quotes Eliot’s doctoral dissertation—entitled *Knowledge and Experience in the Philosophy of F.H. Bradley*—in which Eliot consigns the individual to a prison of subjectivity: “every sphere is opaque to the others which surround it… the whole world for each is peculiar and private to that soul” (240, 241). The alignment of Idealism with the new physics therefore suggests an analogous relationship between the unvisualizable cosmos and the unknowable Other. Each person is fully isolated, cut off from anything beyond himself.

This isolation naturally produces a yearning for self-transcendence, and Eliot’s attempt to achieve that transcendence through poetry is characteristically modernist. Eliot expresses this yearning in *The Waste Land* with the lines, “We think of the key, each in his prison / Thinking of the key, each confirms a prison,” which Foster glosses with the claim that “there is no ‘key’ to freedom from the oppressive limits of sense experience; there is no effective communication” (qtd. in Foster 91). At times, Eliot seems to acknowledge the futility of any attempt to escape that prison. In “Gerontion,” he imagines “De Bailhache, Fresca, Mrs. Cammel, whirled / Beyond the circuit of the shuddering Bear / In fractured atoms” (67-69). As Whitworth observes, atoms provide a key metaphor in poetic forms informed by the new physics. Ernest Rutherford’s success in splitting the atom in 1910 invested the atom with “a fertile ambiguity… being both a thing that was indivisible, and a thing that experimental science had succeeded in subdividing,” providing a threefold metaphor (147). First, atoms could stand for the unified/disunified self; second, “for textual unity, in spite of the diversity of textual sources;” and third—through “the interactions of atoms”—for “social interaction and for narrative form” (Whitworth 147). In

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“Gerontion,” Eliot makes use of the first and the third of these metaphors. Not only are his three characters deprived of social interaction by being separated from one another in the vastness of space, they also lose their own bodily integrity. More than that, the atoms into which they have been broken may themselves be “fractured” into smaller particles, and even the great constellation is described—in a particularly Einsteinian touch—as “shuddering,” a sign that the relativistic cosmos is also losing its solid intelligibility. The atomized individual is separated from all other selves and then broken down still further, alienating him even from himself as he gazes out on a cosmos that can no longer serve as an objective, external point of reference. His world, his neighbor, and himself are all equally beyond his grasp.

Searching for a way to get outside of himself and experience something more than mere broken, limited subjectivity, Eliot turned to the British Idealist F.H. Bradley, whose philosophy, though formulated before the advent of Einstein’s theories, seems to have anticipated and helped shape the popular interpretation of relativistic space and its epistemological implications. In “The Structure of Eliot’s ‘Gerontion,’” Jewel Spears Brooker describes Bradley’s concept of “Experience”—also called “Reality” or “the Absolute”:

Each fragment of Experience is self-transcendent, i.e., each fragment reaches beyond itself and is taken up into successively greater fragments until it reaches Reality. In other words, every fragment has a context which in turn has a context which in turn again has a context which finally is Reality or Experience. And Experience, Bradley insists, is One. (317)

Lewis puts it more simply when he writes that, according to Idealism, “[t]he Absolute… contained the reconciliation of all contraries, the transcendence of all finitude” and that “our
logic was participation in a cosmic *Logos*” (*Surprised by Joy* 256). From Brooker and Lewis, it becomes evident that Bradley sees objective Reality as the sum of all subjectivities, all incomplete in themselves, but adding up to a sort of totality as each fragment finds its place in some universal pattern. In an Einsteinian universe, this pattern—or Absolute—offered a possible replacement for the shared, objective cosmos that relativity had thrown into subjective abstraction.

In order to seek this Absolute, the isolated individual must find a way to transcend his own limited perspective. Albright, drawing on Eliot, offers one means of doing so when he writes, “I can become a part of your cosmos only if you first swallow me, then impersonate me,” (242). In other words, the best way to get beyond oneself is to imaginatively open oneself up to a variety of contradictory viewpoints and assimilate them within oneself, thereby “passing,” as Eliot writes in his thesis, “from two or more discordant viewpoints to a higher which shall somehow include and transcend them” (qtd. in Albright 243). This method offers a way to approach nearer to the Absolute. Brooker even suggests that “Gerontion” is intended to demonstrate this approach when she uses the analogy between the fractured atom and the fragmented narrative structure to argue that the poem “literally and really consist[s] of fragments” and that the reader is invited to integrate those fragments and to come away from the poem with the pleasure of having forged unified meaning from chaotic fragmentation (338). The reader who succeeds in doing so will have made some progress toward repairing the painful isolation that seemed to manifest itself on a cosmic scale in Einstein’s subjective universe. This attempt at transcendence and integration, however, carries with it the risk of irreparably fracturing the self.
In *The Waste Land*, Eliot makes full use of the modernist metaphor in which the fractured atom stands for the dis-unified text and the isolated, dis-unified self, thereby setting the poem in a subjective, relativistic universe. Whitworth suggests that a text, like an atom, is often compared to a body in that both are unified despite the diversity of textual sources or particles they comprise, but although *The Waste Land* is a veritable pastiche of different sources, quotations, and allusions, it achieves no such unity (147-148). Albright, noting that Eliot’s original title for the poem was *He Do the Police in Different Voices*, suggests that “a single speaker is behind the text, impersonating” all the characters that appear, but that “the narrator cannot grasp that transcendent point of view that would reconcile all local points of view; and so he slithers randomly from one… to the next” (254). By the end of the poem, no transcendent meaning has emerged. The reader and narrator are left with “fragments… shored against my ruins” (431). The character Tiresias, “throbbing between two lives” is another perfect illustration of the attempt to contain contradictory multitudes within oneself and then transcend oneself by resolving those contradictions, and the thunder’s command “Dayadhvam”—“sympathize”—serves as an invitation to expand beyond the prison of self (218, 412). Again, though, success is not forthcoming. Albright colorfully suggests that “the narrator, shifting from story to story, seems to suffer from the grandest headache in the whole history of narrative,” and that the poem “illustrates the strong tendency of transcendent entities to fracture into a gabble of competing points of view” (254, 255). This risk of dissolution stems directly from the unvisualizability of Einstein’s cosmos. As Foster argues, “the metaphysical objectives of [*The Waste Land*] - subjective experience the only reality and the failure of absolutes to validate themselves - result from the fall of classical physics” (90). Nor is the risk limited to highbrow works. As Price
points out, even in the pulp fiction of the period, the stories “all end by warning against the
dangers of getting too closely involved with the new cosmology,” which has the “crippling
effect” of alienating characters from the external world and from other characters, with one
protagonist leaving a physics lecture and returning home “more confirmed in his bachelorhood
than ever” (11, 95, 94). Any attempt to escape from Einstein’s epistemological prison—in which
self is cut off from self, neighbor, and world—seems to end in failure. The universe has
vanished into abstraction, leaving us stranded.

In his later works, Lewis accepts this radically new break between the universe we see
and the universe that is. Unlike Maritain, who argued that “Einstein confused reality with
measurement,” Lewis seems perfectly willing to admit that the world he perceives may not in
fact be real (qtd. in Canales 206). Measurement may in fact be reality, depending of course on
what is meant by “reality.” In The Discarded Image, Lewis acknowledges that, while the
“nineteenth century still held the belief that by inferences from our sense-experience… we could
‘know’ the ultimate physical reality,” under the new physics “we cannot, in the old sense, ‘know
what the universe is like’” and must rely on “expression[s] such as ‘the curvature of space’”
which are “on the level of our ordinary thinking, nonsense” (216, 218). He further develops this
idea by analogy to cartography:

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Whitworth declines to take a firm position on whether Eliot’s post-conversion poetry, in which “God…
subsumes each of us into some larger structure of meaning,” constitutes a significant philosophical shift
(275). He instead leaves open the possibility that “Eliot’s Christ is little more than Bradley’s Absolute”
while also suggesting that Eliot’s Christian poems replace “a poetics of swimming with a poetics of
dancing” by establishing a divine center point (275-276, 285). I have sidestepped this question by
focusing exclusively on Eliot’s pre-conversion poetry, which is generally considered more typically
modernist than his post-conversion poetry and is therefore more useful for my purposes.
I do not think it was doubted that there was a concrete reality about which the mathematics held good… We should be like a man coming to know about a foreign country without visiting it. He learns about the mountains from carefully studying the contour lines on a map. But his knowledge is not a knowledge of contour lines… It would be very different if someone said to him (and was believed) ‘But it is the contour lines themselves that are the fullest reality you can get.’ (217)

Copernicus may have evicted humanity from the center of the universe, but as Lewis and many of his contemporaries saw it, Einstein had made a far more alienating discovery. He had proven that the universe described in every model from Ptolemy to Newton was never real to begin with and that humans could have no direct knowledge of the real universe.

Far from despairing, however, Lewis embraces the unvisualizability of the universe and draws from it a number of metaphors and spiritual practices that actually enhance his religious devotion. First of all, the Einsteinian universe improves upon both the medieval model of the universe and the Newtonian model in that it allows for the possibility of a greater reality beyond appearances. Although Lewis openly admits that he prefers the medieval model aesthetically, he acknowledges that it may be “a shade too ordered” to the point of inducing “a kind of claustrophobia” (Discarded Image 121). For Lewis, the religious awe that medieval man felt in contemplating their Model of the universe is still available in Einstein’s cosmos, provided that the popularizers are kept from spoiling it. As for the Newtonian universe, Tolkien scholar Janet

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7 In fact, Copernicus’s discovery need not have been traumatic at all. As Lewis notes elsewhere in The Discarded Image, the medieval Model of the universe was “anthropoperipheral”—in that only that which was beneath the moon was perishable, while everything beyond the moon was closer to God and worshipped and obeyed Him in perfect joy—and the Earth was seen as a “cosmic dust-bin” formed from the accretion of those elements too base to rise to the purity of the heavens (58, 63). Being at the center of the universe was hardly a privilege.
Brennan Croft quotes Northrop Frye’s deployment of the relativistic theory that “matter [is] an illusion of energy” to argue that as they engaged with the new physics, Tolkien and the Inklings—a writing group that included Lewis—came to “find science leading… back to the mythical” (83). If Newton had banished myth and mystery with his neat, mathematical universe, Einstein had let it back in. Nor were the Inklings alone in their mythopoeic, optimistically Christian response to the new physics. The Anglican Communion’s Lambeth Conference of 1930 affirmed that “there is much in the scientific… thinking of our time which provides a climate more favorable to faith in God than has existed for generations,” and even Eliot, whose response to the Conference’s report largely lambasted Lambeth, agreed that popularizations of the new physics might help non-believers overcome their anti-religious “prejudices” (qtd. in Whitworth 57; Whitworth 57). Lewis deftly illustrates this point in his 1952 children’s fantasy novel *The Voyage of the Dawn Treader*, in which a highly literal boy from our world says to a sentient star from the magical world of Narnia that “a star is” nothing more than “a huge ball of flaming gas,” to which the star himself replies, “Even in your world… that is not what a star is, but only what it is made of” (522). Here, Lewis uses this character to voice his own rejection of a flat cosmological naturalism in favor of a universe in which the gap between perception and reality reinvigorates the religious imagination.

In his 1964 book *Letters to Malcolm*, the modernist alienation from self and from the external world is not a crisis, but instead an aid to contemplative prayer. His meditation on physics brings him to the realization that “the four walls of the room” in which he prays are “totally unimaginable, only mathematically describable” (106). This reflection then prompts him

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8 See William Blake’s monotype print *Newton* for a visual example of Newton stripping the universe of mystery and wonder.
to recognize that the truth that lies beneath the “façade… I call consciousness” is equally inaccessible (107). Lewis comes to realize that his concept of the “I” that prays is no more real than his sensory perception of the room around him. Along the same lines, Lewis observes that the “bright blur in the mind which stands for God” is equally artificial (106). Physics and theology thus work together to remind Lewis that there are higher realities beyond the appearances of this world, which we perceive—according to St. Paul—“through a glass darkly” (1st Corinthians 13:12 KJV). Rather than falling into despair or engaging in a desperate, self-destructive attempt to escape from this epistemologically limited situation, however, Lewis instead accepts that his “creaturely situation” is ordained by God and that, as Jerry Root and Mark Neal put it in *The Surprising Imagination of C.S. Lewis*, “God is the ground of both material reality and our own reality as humans” (*Letters to Malcolm* 111; 42). Lewis accepts that he will never, in this life, achieve perfect knowledge of the external world. To do so is impossible in a cosmos made up of curved space and other such absurdities, but this imperfection of knowledge need not lead anguish. The universe we observe may not be real according to Einstein, but it is the universe we are meant to observe. The point of intersection between experience and reality is, Lewis argues, divinely ordained.

This realization does not, however, lull Lewis into a sense of complacency. In *A Grief Observed*, written after the death of his wife in 1960, Lewis writes that “All reality is iconoclastic” and expresses his desire for “Not my idea of God, but God. Not my idea of [my wife], but [my wife]. Yes, and also not my idea of my neighbour, but my neighbour” (684).  

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9 Lewis’s wife was born Helen Joy Davidman, though when they met, her married name was Helen Joy Gresham. Though she went by “Joy,” Lewis refers to her in *A Grief Observed*—which he wrote under the pseudonym N.W. Clerk—as “H.”
Even though his God, his wife, his friends, and his own self are beyond his knowledge, Lewis still believes in the possibility of approaching them more closely and longs to do so. According to Lewis, it is God who facilitates this process of discovery: “I may, once more, be building with cards. And if I am He will once more knock the building flat” (A Grief Observed 685). The Christian life, Lewis implies, relies upon both the constant awareness of the incompleteness of one’s own knowledge and the constant willingness to grow in that knowledge. As Joe R. Christopher puts it in his book C.S. Lewis, God is “the great iconoclast who continually breaks down false images… until [one] discovers reality—or is given up as hopeless” (21). Lewis’s concept of earthly life as a divinely-guided journey from subjective ignorance toward objective reality helps ease the Einsteinian burden of the gulf between individual perception and the external world by adding a Providential element to the highly fraught modernist quest for self-transcendence.

Lewis’s 1956 short story “The Shoddy Lands” provides another example of iconoclastic reality shattering subjective illusions. In that story, the unnamed narrator is mysteriously and temporarily “let into” the mind of a vapid modern woman named Peggy, “at least to the extent of seeing her world, the world as it exists for her,” a world in which “a swollen image of herself” is at the center and, aside from a few fashionable knickknacks, “the whole earth and sky are a vague blur” (146). Upon a cursory reading, this would appear to be a straightforward—and somewhat misogynistic—story about the lack of clarity in our perceptions of the external world.¹⁰ This interpretation, however, is rendered insufficient by a passage in which the narrator

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¹⁰ For other examples of Lewis’s dislike of “modern” women, see Camilla Bembridge in The Dark Tower—who “was so free to talk about things her grandmother could not mention that Ransom… wondered if she were free to talk about anything else”—and Susan Pevensie in The Last Battle—who damns herself by exchanging Narnian magic for “nylons and lipstick and invitations” (91; 741).
hears, within Peggy’s mind, “patient knockings… as if… some enormous hand fell on the outside of the Shoddy Sky and covered it completely” and a voice calling, “Child, child, child, let me in before the night comes” (144-145). Here, Lewis combines two sayings of Christ—“I stand at the door, and knock” and “[T]he night cometh, when no man can work” (Revelation 3:20 KJV; John 9:4 KJV). It is Christ the iconoclast who attempts to break us out of our impoverished subjective worlds and lead us into reality. This truth applies not only to empty-headed Peggy, but also to the narrator, who detests unexpected visitors and ends the story fearing what might happen “if, some other time, I were not the explorer but the explored” (146). Though he is critical of Peggy’s subjective vision of reality, he knows that his will certainly be found wanting as well. “The Shoddy Lands” thus reveals the dangerous temptation to turn inward and be content with something less than perfection instead of seeking outside oneself for God and neighbor.\textsuperscript{11} Lewis emphasizes the gravity of this temptation in his 1940 book \textit{The Problem of Pain} when he writes that “[w]hat is outside the system of self-giving is… simply and solely hell” (644). The impossibility of objectively visualizing or experiencing anything outside oneself may be daunting, but to refuse to go outside oneself is to choose damnation.

Although some degree of limited subjectivity may be both God-ordained and temporary, Lewis refuses to subsist in solipsism and therefore engages with the modernist project of reconciling various subjective viewpoints, an endeavor that he views as part of his obligation as a Christian. At the climax of his 1961 book \textit{An Experiment in Criticism}, Lewis writes that “[w]e are not content to be Leibnitzian monads”—a philosophical concept that Eliot had compared to

\textsuperscript{11} The dwarves in \textit{The Last Battle}, who are “so afraid of being taken in that they cannot be taken out” and thereby exclude themselves from Narnian paradise, provide another example of this spiritually lethal self-absorption (748).
Einsteinian relativity—and borrows Eliot’s prison metaphor from *The Waste Land* to claim that “[t]he man who is contented to be only himself, and therefore less a self, is in prison” (138, 140). For Lewis, therefore, subjectivity is as much a prison as it is for Eliot and the other modernists. Lewis’s solution is almost the same as the one Albright describes: the “dilation of self” by way of assimilating the perspectives of “other monads” in order to achieve a “more comprehensive mode of being” (Albright 243). For Lewis, however, one who reads well can be said to have “pierced the shell of some other monad and discovered what it is like inside,” while Albright insists that Eliot, as a representative of modernism, saw these monads as impenetrable (138; 243). Lewis also seems unaware that this attempt at self-expansion will inevitably entail the same risks that it does for the narrator of *The Waste Land*. He reveals this lack of concern when he writes that “in reading great literature I become a thousand men and yet remain myself… I transcend myself; and am never more than when I do” (141). Root and Neal echo Lewis’s confidence uncritically when they write that “we must break out of the dungeon of self and discover the wider world as it is, not as we would have it be” (56). Their use of the phrase “as it is” reveals a major problem at the heart of Lewis’s argument, which is that the sum of all subjectivities is not, for a Christian, the same as objectivity. It may be a way of approaching nearer to objectivity, but it is at best an asymptotic one. The reader may cure himself of the subjective illusion that “the railway line really grew narrower as it receded into the distance” and even “escape the illusions of perspective on higher levels,” but to suggest that, through this process of expansion, one might arrive at “facts as they are” smacks of Idealism (*Experiment in Criticism* 137, 138). In this moment of apparent overreach, Lewis seems to lose sight of his earlier insistence on the necessity of God as the divine iconoclast who facilitates the human
journey toward objectivity. *An Experiment in Criticism* was written for a secular audience and contains no direct references to Lewis’s religious faith, but by removing the divine element so essential to his own thinking on the subject, Lewis—perhaps unintentionally—seems to place the responsibility for self-transcendence wholly on the individual, almost as if he had never abandoned Bradley’s Absolute for a personal God who acts on His creatures.

Elsewhere in his body of work, Lewis repeats his assertion that our perception of the world is divinely-ordained, but also carries the quest for the sum of all subjectivities to its natural, and unworkable, conclusion. In *Letters to Malcolm*, he suggests that any post-Einsteinian articulation of the doctrine of bodily resurrection cannot be “concerned with matter as such at all: with waves and atoms and all that” because “the ‘real world’ of our present experience… all corseted by perspective… has no place in the world described by physics” (165). For Lewis, the old conception of the resurrection may have made sense when our understanding of the world corresponded to its ontological reality, but in the age of the new physics, he argues, the resurrection must be a redemption from Einsteinian relativity without being a gnostic abandonment of matter as such. In other words, paradise must be both physical and inhabitable without reproducing the epistemological alienation that accompanies a purely abstract universe. Lewis contrives to solve this problem by raising perceptions to the level of factuality, writing that “the fact that [the hills] are blue five miles away, and the fact that they are green when you are on them, are equally good facts” since matter “enters our experience only by becoming sensation… or conception. That is, by becoming soul” (164, 165). The glorified body, Lewis argues, “will be inside the soul,” reconstituted by the soul’s purified memories (164). Through

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12 Seddon claims that Lewis’s vision of a quasi-material paradise in *Letters to Malcolm* does constitute a heretical “semi-Gnosticism” (73).
this physicalization of subjectivity, each individual will be able to approach a comprehensive reality by experiencing his neighbor’s subjective experiences firsthand while also helping his neighbor progress toward that same totalized reality by making tangible what could once only be shared through literature or conversation: “Sown in subjectivity, it rises in objectivity. The transitory secret… is now a chord in the ultimate music” (165). Only in such a world can the breach between the individual and the material world, and the resulting breach between each individual and every other, be healed.

This hypothesis, however, raises many of the same questions it was intended to settle. In claiming that matter achieves its heavenly permanence and ultimate reality by “becoming soul” and that “the hills and valleys of Heaven will be to those you now experience not as a copy is to an original… but as the flower to the root,” Lewis reopens the door to subjective relativity (165, 166). Either the “soul” to which he refers must be a sort of collective soul, or paradise must contain as many iterations of the Grand Canyon as there are impressions of it. The former case would produce composites that would erode the particularity of individual perception that Lewis so treasures, while the latter would seem to undermine Lewis’s suggestion that the perception will become more real than the material object. If there were ten million versions of the Grand Canyon, it would seem natural to deduce that they are all copies of some sort of objective reality, thereby making earth the realm of Platonic forms and heaven the realm of copies. Lewis may happily recall his boyhood fields, but perhaps someone else has similar memories of the estates that replaced them (163). Are we to assume that the field and the estates would somehow occupy the same space? Or that the same area will be in constant flux between the two? Either would require abandoning the foundational logic of physical reality. As Lewis writes in *The Problem of
Pain, “the fixed nature of matter prevents it from being always… distributed so that it is equally convenient and pleasurable to each member of a society… If even a pebble lies where I want it to lie, it cannot, except by a coincidence, be where you want it to lie” (564). In his attempt to achieve a conceptual escape from the prison of subjectivity by raising impression to the level of ontological fact, Lewis fails to either transcend subjectivity or to preserve physical reality from the alienating effects of the new physics. *Et in arcadia* there is still no objective Grand Canyon to which anyone can turn. Lewis does qualify this bold vision of the afterlife when he writes that it consists of “guesses” and that “[i]f they are not true, something better will be” (166). One could argue that because it appears in a work that is more devotional than rigorously theological, Lewis’s description of paradise should not be held to normal standards of coherence or orthodoxy. Nevertheless, while it is noteworthy that Lewis is attempting to imaginatively integrate faith and physics, I am also concerned with how successfully he does so. In *Letters to Malcolm*, Lewis uses the devotional genre and a conversational style to give himself the freedom to push the boundaries of both reason and orthodoxy, but despite these precautions, he still overreaches.

Even as Lewis fails in his attempt to imagine a post-Einsteinian afterlife in *Letters to Malcolm*, however, the formal characteristics of the book provide a much more honest engagement with the problems of subjective alienation. *Letters to Malcolm* consists of 22 “letters” written from Lewis to a fictional friend on the topic of prayer. Malcolm’s replies, as well as his letter initiating the dialogue, are not included, although Lewis frequently begins his “responses” by giving some hint as to the contents of Malcolm’s previous letter, as when he begins the third letter/chapter with “Oh for mercy’s sake. Not you too!... Didn’t I make it plain
that I objected to your image solely on the ground of its nonchalance?” (17). The reader is therefore positioned as Malcolm and forced to reconstruct “Malcolm’s” arguments in order to make sense of Lewis’s. Lewis scholars have offered a variety of explanations for this formal choice. Christopher suggests that Lewis was “seeking a form that avoided authoritarianism,” an argument validated by Lewis’s claim that for him “to offer the world instruction about prayer would be impudence” (86; 86). In his article “Letters to Malcolm and the trouble with Narnia,” Eric Seddon attributes a much less admirable motive to Lewis, suggesting that Lewis “had chosen to shy away from the public debates of his middle age only to find that the nostalgia for battle remained” and therefore constructed Malcolm as a “sort of theological Watson to his own Holmes” so that he might act “as both the prosecution and the defense” (65). In his haste to read Lewis’s book as an anti-Catholic polemic veiled in casual pseudo-humility, however, Seddon neglects to explain why Lewis did not write Malcolm’s side of the dialogue. Surely if Malcolm were a mere punching bag, it would have been more effective to write his letters in such a way as to make him appear as foolish as possible, which is exactly what Lewis did with his unnamed atheist opponent in “Religion and Science” eighteen years earlier. Although Lewis does take combative stances toward other theologians of the day in Letters to Malcolm, his dialogue with Malcolm is far from antagonistic, suggesting that Lewis—as both the book’s author and a character in it—is genuinely interested in pursuing the kind of self-transcendent mutual understanding that Einstein-inflected Idealism renders difficult if not impossible.

13 A perfect example of this sort of antagonistic cosmological dialogue would be Galileo’s Dialogue Concerning the Two Chief World Systems, in which the sole function of the character Simplicio is to stupidly parrot heliocentric talking points, which Galileo’s stand-in then refutes.
In his treatment of the fictional Malcolm, Lewis invites his reader to perform the modernist reading practice—evident in texts ranging from Eliot’s *Waste Land* and “Gerontion” to Faulkner’s *Absalom, Absalom*—of reconciling literary fragments. Lewis creates a tension between the insistence that his reader step into the role of Malcolm and the impossibility of entirely reconstructing Malcolm’s letters. Malcolm exists “only insofar as” he is “an element of” Lewis’s “world,” perfectly illustrating Albright’s concept of modernist subjectivity: “I can become a part of your cosmos only if you first swallow me, then impersonate me” (242). Because Malcolm is not allowed to speak for himself, subjectivity remains impenetrable, and the reader is left assuming the role of—as Lewis put it in *A Grief Observed*—the idea of a neighbor rather than that of an actual neighbor. And yet, the decision to write a half-dialogue rather than a traditional work of non-fiction suggests Lewis’s willingness to reach out to the other, to acknowledge the impossibility of complete escape from the prison of subjectivity while still allowing the other’s true self to impinge upon him to the degree that such impingement is possible. There cannot be full understanding, but there can be trust and love, as when Lewis acknowledges that Malcolm is “the very man who taught… me” a particular spiritual insight (123). Malcolm may not exist outside of Lewis’s hermetically sealed monad, but even such a limited friendship can still bear spiritual fruit. Lewis echoes the painful, lonely striving of Eliot’s narrators and considers it an essential facet of creaturely existence when he writes that “[t]o be created is, in some sense, to be ejected or separated” and suggests that Christ himself experienced this monadic anguish at the cross, feeling “of all men… by God most forsaken” (59, 60). Our subjectivity—exacerbated by the abstract Einsteinian cosmos—is a wound that cannot be fully healed in this life, but it is a wound which God himself has also suffered.
While Lewis’s attempt to imagine the transcendence of subjectivity and the vindication of perceived reality may have failed in *Letters to Malcolm*, a similar attempt, this time presented in the form of science fiction, comes much closer to success in *Perelandra*. At the beginning of the final chapter, Lewis’s protagonist Ransom sees a pair of glorified humans and exclaims that he has “lived all my life among shadows and broken images” (260). Having borrowed the phrase “broken images” from Eliot’s *Waste Land*, Lewis then sets about reintegrating the isolated, subjective fragments into which the new physics and its accompanying Idealist philosophy have shattered those images. Ransom contemplates the vastness and incomprehensibility of the universe and, in a speech that fuses theological doubt with the feeling of modernist anxiety in the face of an unvisualizable cosmos, wonders if “any shape or plan or pattern was ever more than a trick of our own eyes” (271). This question propels Ransom and his companions—two humans and two angels—into an ecstatic vision in which his question is fully answered and the epistemological crises of the new physics are fully resolved. The first part of the vision takes the form of long paragraphs, each a speech delivered by one of the five beings, but Lewis does not attribute any of these speeches to a specific speaker and notes that Ransom “never knew which words were his or another’s” (272). Here, despite Lewis’s use of modernist polyphony, the threatening discord of *The Waste Land*, in which the epistemological limitations of the unvisualizable cosmos lead to “a swirl of points of view [that gobble] one another up,” is nowhere to be found (Albright 269). Instead, Ransom describes the experience as harmonious music, or as “a wind blowing through five trees that stand together on a hilltop” (272). The prisons of subjectivity can at last be escaped only through surrender to the divine Spirit that animates each individual monad. One speaker describes a similarly positive confusion of persons
at the heart of the Trinity: “He utters Himself also for His own delight and sees that He is good. He is His own begotten and what proceeds from Him is Himself” (277). In this ecstatic vision, Ransom and his companions receive a foretaste of the pure intersubjectivity that comes with participation in the love that animates the internal life of the Trinity.

Although Lewis acknowledges that subjectivity cannot be fully transcended in this life, nor the universe truly perceived, he turns these relativistic limitations toward redemptive ends. The final speech of the vision declares,

[T]his… also is the end and final cause for which [God] spreads out Time so long and Heaven so deep; lest if we never met the dark, and the road that leads no-whither and the question to which an answer is imaginable, we should have in our minds no likeness of the Abyss of the Father, into which if a creature drop down his thoughts for ever he shall hear no echo return to him. Blessed, blessed, blessed be He! (277).14

For Lewis, the abstraction and unvisualizability of the Einsteinian cosmos is not an invitation to despair, but rather a welcome reminder that some mysteries are beyond us. As Schwartz puts it, the universe’s “scale and complexity” are meant to aid “the one creature that seeks to comprehend the universal design” (86). An orderly medieval or Newtonian universe risks creating the impression that this design is within our power to understand; there is little danger of doing so in Einstein’s cosmos.

This vision not only emphasizes the humbling smallness of our subjective experience, but also its ennobling importance. Each individual may be trapped in his own relativistic point of view, seeming like the center of his own universe, but one of Lewis’s voices dignifies that

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14 When the speaker says “Heaven,” the reference is to the cosmos, not to the afterlife.
subjectivity, declaring that “the seeming will be true” and that each individual legitimately say “I am at the centre; for me all things were made” (277, 275). Here, Lewis explores the theme of limited perception as God-ordained that he will later return to in *Letters to Malcolm*, but in *Perelandra* subjectivity is vindicated in both its limitation—as a reminder of God’s inexpressible ineffability—and in its specificity—as a reminder that Providence directs all for the good of each. Lewis even connects the two. As the speeches fade away, Ransom begins to see—though “the word ‘seeing’ is… plainly inadequate”—God’s Providential plan represented quasi-visually as a “Great Dance” that “seemed to be woven out of the intertwining undulation of many cords or bands of light… Each figure as he looked at it became the master-figure or focus of the whole spectacle” (277). Seeing becomes inadequate as matter—in true Einsteinian fashion—comes to be represented as energy, at the same time that each relativistic, subjective platform from which to view the unvisualizable ceases to be a prison shut off from reality, and instead takes its place at the very heart of reality.

By putting his own theological spin on several modernist forms and concepts—including polyphony and fragmented narratives—Lewis engages with the Einsteinian issues of subjectivity and unvisualizability and turns them from harbingers of an ego-shattering despair into reminders of God’s grandeur and Providence and of humanity’s duties in relation to Him. In *The Discarded Image*, he even suggests that the idea of “the curvature of space” is “strictly comparable” to the idea of a “circle whose centre is everywhere” in that both merely “succeed in suggesting” and thereby draw the imagination toward the transcendent (218). The non-Euclidian geometry that curved space and severed perception from reality becomes, for Lewis, a reminder of the impossible geometric images that theologians had used to describe God for centuries. Lewis
envisions a Providential cosmos in which “it is all centre” just as Nicholas of Cusa, in the 15th century, suggested certain “geometrical ‘exercises’” that were “mathematically impossible” but provided “metaphorical steps for moving beyond the finite toward the infinite that might be transferred from geometrical figures to created beings and their Creator” (Perelandra 277; Miller). Following Nicholas of Cusa, Lewis suggests that there is a natural analogy between the transcendent mathematical mysteries of Einstein and the transcendent spiritual mysteries of Christianity. The Idealist subjectivity that, drawing strength from the new physics, stranded each person within an impenetrable monad becomes for Lewis an impetus for study, friendship, and religious contemplation, as well as a limitation shared with Christ Himself. Though he underestimates the seriousness of the issue in An Experiment in Criticism and suffers an imaginative failure in Letters to Malcolm, in Perelandra Lewis successfully borrows images and forms from the new physics to produce a convincing vision of heavenly perception and intersubjectivity. Only in the beatific vision, Lewis asserts, will he truly see his neighbor, his universe, and his God.

15 The statement that “God is an infinite circle whose center is everywhere and whose circumference is nowhere” is often attributed to Nicolas of Cusa. It is likely that a well-read medievalist like Lewis drew inspiration from this geometric image. Lewis was certainly familiar with Nicolas of Cusa, as evidenced by his poems “Cradle-song Based on a Theme from Nicolas of Cusa” and “On Another Theme from Nicolas of Cusa” (Collected Poems 387-388, 389).
16 My epigraph from The Screwtape Letters illustrates this point quite nicely.
CHAPTER TWO: TIME

Just as Einstein’s theories about the curvature of space rendered the universe unvisualizable, his theory of time replaced the dominant Newtonian idea of time as something universal and objective with a relativistic temporality that served to further destabilize the pre-modernist conception of a more-or-less orderly and comprehensible universe. This new conception of time had broad implications for the popular imagination, modernist literature, theology, and the works of Lewis. In his theory of Special Relativity, Einstein asks readers to imagine two strokes of lightning that, according to a group of observers on a railway embankment, occur at the same time. He then proposes a second group of observers who watch the lightning from the moving train, and uses this scenario to pose, and answer, his big question:

Are two events (e.g., the two strokes of lightning A and B), which are simultaneous with reference to the railway embankment, also simultaneous relative to the train? We shall show directly that the answer must be negative… Events which are simultaneous with reference to the embankment are not simultaneous with respect to the train, and vice versa (relativity of simultaneity). Every reference-body (coordinate system) has its own particular time. (qtd. in Latta 45)

Einstein thus transforms each individual from a participant within an objective temporal framework to a “reference-body” with a unique and entirely subjective experience of time that is just as valid as that of any other reference-body. Einstein’s theory of Special Relativity is, of course, quite complex, but Whitworth observes that it relied heavily on the idea that “because even the fastest possible medium, light, has a finite velocity, no event reaches our senses at the instant of its happening” and that “the publicity surrounding that [idea] brought it to the attention
of many for the first time” (170). As usual, the aspects of the new physics that had the greatest effect on the popular imagination were those that were comprehensible to the reading public and conducive to the contemporary mood of disillusionment with the old order.

Adding to this sense of disillusionment were the theological questions that Einstein’s theory raised. Max Jammer explains in his book *Einstein and Religion* that Plato, among the first to theologize time, described it as “an eternal image [of Eternity], moving according to number,” while Newton “did not hesitate to identify… absolute time with God’s eternity” (165, 157). For both thinkers, time is both linear and objective, deriving its objective nature from a divine source. Although Canales notes that Immanuel Kant offered a secular defense of absolute time, she also notes how closely tied it remained, in the minds of many thinkers, to the existence of an omniscient God and how Einstein’s relativity raised the question of “the existence or inexistence, or even the mere possibility of existence, of such an observer” (220, 227). As an instance of this discourse, she refers to one contemporary critic of Einstein, who based his critique on “a Christian view in which humans were made in the image of God” and should therefore have access to God’s objective time (228). By disproving, at least in the popular and literary imagination, the existence of absolute time, Einstein’s theory replaced the objective time of the omnipresent observer with the relativized time of the subjective observer, effectively widening the gulf between man and God.

Relativity of simultaneity effectively dismantled the Enlightenment consensus concerning time and erected in its place a lonely present—which, from someone else’s perspective, may be the future—haunted by a disjointed, omnipresent past. In his popularization entitled *The Nature of the Physical World*, Eddington imagines a man on Earth and his girlfriend on Neptune trying
to think fondly of one another at the same moment and suggests that because “there are various relative Nows differing according to the reckoning of different observers,” the woman will have to “think of [him] continuously for eight hours on end in order to circumvent the ambiguity of ‘Now’” (qtd. in Price 111). This thought experiment introduces a theme of subjectivity by placing individuals in separate temporalities. Other popularizers express this idea through the “‘twin paradox’ in which,” as Ebury describes it, “one twin, an astronaut travelling at the speed of light, ages more slowly than the other twin” (124). That fact that both examples rely upon the severing of close interpersonal relationships demonstrates the sense of alienation that came with this discovery.

Alongside this concept came the idea that the past does not die, but instead continues to impinge upon the present. Ebury recounts that several popularizers described a scenario in which “an observer on a sufficiently distant planet viewing Earth might see, depending on the distance… the battle of Waterloo or dinosaurs” and describes such a universe as “ghostly, potentially filled with images of the past” (14). The portrayal of these images as radiating outward into a universe of curved space suggests not only that the past never truly dies, but also that it is constantly on the move, since “light might circulate so that you could see… what was in the space occupied by you millions of years ago” (Ebury 14). The past, in other words, encroaches on the present in unpredictable ways, and “the present” itself is far from a stable concept. In fact, Whitworth suggests that for modernists like Virginia Woolf, “the idea of simultaneity disrupts sequentiality, revealing it to be a fragile psychological construct” (184). The quasi-mystical pseudoscientist J.W. Dunne earned both popular acclaim and cultural cachet when he took this blurring of past, present, and future to an extreme in his theory of “serialism,”
which posited that “our waking experience unfolds within a second order of time” and that, due to the existence of a “group mind,” it is possible to have “memories” of the future or of other people’s pasts (Price 190-191). That Dunne had an influence on “various science fiction, fantasy, and canonical literary authors” and even “struck fire from [C.S.] Lewis’s imagination” clearly suggests a desire among modernist readers and writers to heal the loneliness and accommodate the hauntedness of relativistic time (Price 191; Hooper 117). Thanks to Einstein, time had ceased to be a shared, linear experience, and had become something subjective and constantly fluctuating, forcing writers to find new ways of representing time.

Ebury provides a useful overview of how this concept of relative simultaneity manifested itself in modernist literature. She identifies Eliot as one adopter of “relativistic cosmic time,” citing Whitworth’s assertions that “Eliot’s notion of the contemporaneousness of all poets is partly sourced in an understanding of Einsteinian physics” and that “the dense allusiveness of The Waste Land, where the words of poets of different centuries are mingled” can be described as a “relativistic continuum” (20). Examples of this tangled temporality abound within Eliot’s poem, with one notable example occurring in the final lines of the first section, “The Burial of the Dead”:

A crowd flowed over London Bridge, so many,
I had not thought death had undone so many.

... 

Flowed up the hill and down King William Street,
To where Saint Mary Woolnoth kept the hours
With a dead sound on the final stroke of nine.
There I saw one I knew, and stopped him, crying: “Stetson!
You who were with me in the ships at Mylae!” (62-70).

Here, the linear, objective regularity of a church clock keeping the time of the London workday dissolves into the simultaneity of Eliot’s twentieth century, Dante’s fourteenth century, and the third century B.C., in which the Battle of Mylae took place. Ebury gives several other examples of this sort of simultaneity, including “[William Butler] Yeats’s Great Wheel in A Vision, where figures from different historical periods exist together… as though they were contemporaries” and the “complex historical simultaneity of [James] Joyce’s Finnegans Wake” (20). Ulysses, in which an ancient Greek poem overlaps with a story set in twentieth-century Dublin, provides another example. In modernist literature, the past penetrates, destabilizes, and reshapes the present.

This disjointed temporality leads Ebury to identify a modernist trend toward representing time with the image of a chaotic heap of cobbled-together moments that accumulate according to no discernible system of organization. Ebury argues that Joyce uses the central image of a “spatiotemporal mountain” that is “troped in the various… heaps, dumps, and piles which are spread throughout the Wake” to represent relativistic time and quotes Samuel Beckett’s assertion in The Unnameable that “[t]ime doesn’t pass… it piles up all about you, instant on instant, on all sides, deeper and deeper, thicker and thicker” (91, emphasis mine). By replacing the line of linear time with the heap of relativistic time, these writers emphasize the precariousness or the present and the unpredictability with which the past impinges upon it. Eliot uses the same sorts

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17 The comparison of the London crowds to the damned souls in Dante’s hell—who see the future but, “like those who have imperfect sight,” have no knowledge of the present—adds to the theme of temporal displacement (Inferno X.129).
of heaps in *The Waste Land* when he writes, “Son of man, / You cannot say, or guess, for you know only / A heap of broken images” (20-22, emphasis mine). Time continues to accumulate, but without progressing toward any sort of comprehensible *telos*. Temporal heaps and mountains therefore anticipate the “block universe,” proposed in 1949 by Hermann Weyl, in which the “world simply *is*, it does not *happen*” and “the relations ‘earlier,’ ‘simultaneous with,’ and ‘later’ are merely geometrical relations in the static four-dimensional space-time” (qtd. in Jammer 160; Jammer 160). Joyce, Eliot, and Beckett, like Weyl, represent time as a single monolith upon which human consciousness vainly attempts to impose linear order of events, driving itself mad in the process. Eliot returns to this heap imagery near the end of the poem:

*Poi s'ascose nel foco che gli affina*

*Quando fiam uti chelidon* -- O swallow swallow

Le Prince d'Aquitaine à la tour abolie

These fragments I have shored against my ruins

Why then Ile fit you. Hieronymo's mad againe. (428-432)

In the space of just five lines, the fourteenth, third, nineteenth, and eighteenth centuries collide in a pile-up of simultaneity. The “fragments” of poetry from across the centuries seem to have been gathered into a heap in order to serve as a makeshift brace to hold up the crumbling edifice of Western Civilization, but to no avail. Einstein’s shattering of linear time, and by analogy of the linear narrative of civilizational progress, left modernist writers feeling cut off from the wisdom of the past while ensuring that they remained haunted by it.

Einsteinian time also inspired a number of formal innovations among modernist writers. Joyce, for example, dramatizes heap-like relativistic temporality through his technique of “piling
up… detail” in order to “deliberately slow narrative time” and thereby force the reader to experience temporal relativity directly (Ebury 96). Eliot achieves a similar effect in poetry in “Rhapsody on a Windy Night,” in which only 11 lines account for the passage of 90 minutes between “Twelve o’clock” and “Half-past one,” while later in the poem, 23 lines take up only 30 minutes, from “Half-past three” to “Four o’clock” (1, 13, 46, 70). The temporal experience of the reader standing outside the poem is entirely discontinuous with the temporal experience of the speaker within the poem. By emphasizing this disconnect, writers like Joyce and Eliot produce a feeling of disorientation that makes readers aware of the constructedness of their own perceptions of time. Whitworth detects a similar technique in Woolf’s The Waves, in which “the lack of conventional lexical cohesion between speeches… give[s] the reader the impression that several speeches are occurring simultaneously, though the reader also realizes that time moves forward within episodes and between them” (185). What appears to be simultaneous from the reader’s perspective cannot be said to be simultaneous from any other point of view. In summary, the main modernist techniques for representing relativistic temporality included heap imagery, simultaneity of different time periods, and formal temporal dilation.

Although Lewis generally avoided modernist literary fiction and would thus have had limited exposure to the texts surveyed above, he was an avid reader of science fiction who would have encountered Einstein’s theories by way of time travel stories. Christopher argues that Lewis based his Chronicles of Narnia on a children’s fantasy series by E. Nesbit in which four children “journey as far back in time as Atlantis and as far forward as a future Utopia á la H. G. Wells,” while Schwartz writes that “Lewis makes no secret of his dependence on Wells, and scholars have demonstrated the extent of his debt to seminal works such as The Time Machine (1895)
In his own essay “On Science Fiction,” Lewis speaks approvingly of the “intellect… at play” in a 1961 time travel story by Robert A. Heinlein and of the “fine working out of the logical consequences of time-travel” in the 1931 novel Many Dimensions by his fellow Inkling, Charles Williams (92). Despite his clear familiarity with the fictional manifestations of the new temporalities associated with Einstein’s theories, however, when Lewis wrote his own imaginative fiction, he seems to have been drawn more toward parallel universes than toward straightforward portrayals of time travel. Schwartz observes that the 1930s brought a “proliferation of simultaneous universes” and “tales that involve alternate time tracks and parallel worlds” into popular science fiction (154). Before he began writing about the parallel fantasy world of Narnia, however, Lewis produced his most sustained engagement with popular science with his uncompleted manuscript of The Dark Tower.

This fragment, written in 1939 or 1940 and published posthumously in 1977 by Lewis’s literary executor Walter Hooper, follows a group of Oxbridge scholars—including a fictional version of Lewis himself—as they make contact with a parallel universe, which they refer to as “the Othertime.” As they refine their theories, all of the characters participate in the ongoing cultural discourse surrounding temporal relativity. Orfieu, the inventor of the chronoscope through which the characters view the Othertime, alludes to the “ladies at Trianon”—who claimed, during a 1901 visit, to have slipped back in time to 1792—and insists that “Dunne’s book proved that” it is possible to directly perceive other times, to which the skeptic MacPhee

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18 Many of these time travel stories predate the popular advent of Einstein’s theories in England in 1919. Whitworth observes that “modernist writers were treating space and time in unusual ways many years before they had heard of Einstein, and in some cases, years before Einstein had published his theory,” and explains that, in a metaphorical sense, technological innovations like the “global telegraph network made time travel possible,” sparking a wave of interest that only grew when Einstein provided a scientific framework to support it (170, 172).
responds with “a roar like a man in pain,” demonstrating both Dunne’s popularity and the scorn with which many scholars viewed his pseudoscientific theories (8, 9). In his “Note on The Dark Tower,” Hooper suggests that Lewis may in fact have “believed the… testimony” of the Trianon ladies “while he was writing The Dark Tower,” though he insists that Lewis would have had no sympathy for the spiritualism of Dunne and used his theories purely as a plot device (117). Lewis is clearly open to the idea of non-linear time, but that does not imply that he is excited about its implications.

The Dark Tower exists firmly within the modernist tradition of works that use Einsteinian temporality to express alienation and disillusionment. An early, and easily overlooked, passage in which the scholars are preparing to activate their chronoscope provides a perfect example:

Except for a faint buzzing there was complete silence in the room for some moments, so that noises from without became noticeable and the memory of that first glimpse through the chronoscope is for ever associated in my mind with the distant roar of traffic from beyond the river and the voice of a newsboy, much nearer, crying the evening paper. (14)

Here, Lewis uses three distinct sounds to evoke the comforting illusion of objective time and true simultaneity, an illusion that the chronoscope is about to shatter entirely. The three events Lewis perceives—the buzzing of the chronoscope, the newsboy’s cry, and the traffic sounds—appear to him to be happening at the same time, but his phrasing suggests that this simultaneity, and the absolute time it implies, exists only “in my mind,” and is therefore nothing more than a comforting mental construct. If he were not located where he is, perceiving things as he is, the

19 Another significant reference to popular science is MacPhee’s dismissal of “[Samuel] Butler and Bergson and [George Bernard] Shaw and all those whigmaleeries” as pseudoscientists (48). The Lewis character even offers a tepid defense of Bergson, but as these allusions are concerned with alternative theories of evolution rather than with Einsteinian physics, they do not fall within the scope of this paper.
three events might occur in an entirely different order. As the story progresses, this intimation of relativistic temporality becomes a great source of anxiety, as evidenced when Scudamour, Orfieu’s assistant, exclaims, “Do you still think it’s all only in the future? Don’t you see, it’s all… all mixed up with us somehow—bits of our world in there, or bits of it out here among us” (49, ellipsis in original). Lewis further reinforces this theme of frightening crosspollination across times and timelines when he has Scudamour discover his exact double in the Othertime and later actually switch places with him (56). The idea of the present as a stable, self-contained point on a linear timeline has been displaced by the modernist sense of a chaotic time heap in which the present is vulnerable to the impingements of what appear to the human observer to be other times.

Lewis’s portrayal of the Othertime could, in fact, be construed as a warning against the spiritual dangers of becoming preoccupied with relativistic time. Ransom initially suggests that the chronoscope might be providing them with a glimpse into hell, but the reader later learns that the Othertimers are a race that “had specialized in the knowledge of time,” having progressed beyond the belief in “a unilinear history from which there is no escape” to the discovery that time can move “backwards-forwards… from left to right” as well as “eckwards-andwards from top to bottom” (33, 100, 106). By moving between timelines in the proper way, the Othertimers believe that they can achieve some version of eternal life—which Scudamour disgustedly compares to going “round and round… like a rat in a bucket of water”—and are willing to commit any number of atrocities in their attempts to reach that goal (108).

This union of spiritualism with the new physics leads to a hubristic and anthropocentric quest for eternal life

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20 See Appendix C for Lewis’s diagram of the Othertime Time Square and a further explanation of its significance.
that Lewis perceives as a threat to proper, dogmatic religion. In this sense, *The Dark Tower* could be seen to anticipate Lewis’s 1946 essay “Religion Without Dogma,” in which he argues that “any religion which begins with a thirst for immortality”—as opposed to “self-rejection in favor of… an object wholly good”—“is damned” and necessarily “inflames those very self-regards which religion must cut down” (136, 137). That the Othertimer language lacks a word for “God” highlights the human-centeredness of their religion (*Dark Tower* 74). Without a divine object or a transcendent ethical framework to discipline them, the Othertimer elites feel free to selfishly torture and deceive their fellow men as they pursue eternal life on their own terms.

This portrayal of Othertimer thought constitutes a direct attack on Dunne’s spiritualism. Commenting on Dunne’s *Experiment with Time*, Price uses inherently religious language when she writes that “[w]hereas popular fiction had warned readers away from getting too close to the new space and time, Dunne offered *redemptive* powers to all of humanity” and even offered “immortality of the soul” (191, emphasis mine). If someone faithfully follows his method, Dunne promises, “The most important fact which emerges is that you prove to be the immortal part of an immortal composite” (*Experiment with Time* 169). 21 The Othertimers’ techniques, which include using dreams and psychological training to transcend the limitations of linear time, further reinforce the connection with Dunne, whose “experiment” involved keeping a meticulous dream journal (*Dark Tower* 109; Hooper 117). Dunne’s methods are obviously not brutal like those of the Othertimers, and Dunne himself suggests that “the unity… of all minds in the Master-mind supplies the logical foundation needed by every theory of ethics” (175). Lewis, however, argues that any system that promises eternal salvation without recourse to dogmatic

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21 Dunne’s theories, especially their spiritualized view of temporality, would later become popular in the psychedelic movement of the 1960s (Wolfe 219).
belief in a good, transcendent deity will be incapable of enforcing any sort of ethical norms. Although Schwartz and Hooper acknowledge Dunne’s obvious influence on *The Dark Tower*, I argue that both commentators—especially Hooper, who claims that the work lacks “a high theological theme”—overlook the extent to which Lewis is mounting an attack on Dunne (Schwartz 155; Hooper 120-121). The quest for immortality without God, Lewis argues, has turned the Othertimers into moral monsters, and our world may be in danger of suffering the same fate. One Othertimer book on the history of their science suggests that “the new conception of time [as nonlinear] was destined to remain for centuries of purely theoretical interest” although it had the immediate effect of “profundly modifying the human mind” (101, 102). Here, Lewis seems to be describing a period in Othertime history that is largely analogous to the first half of the twentieth century in our world, in which Einstein’s theories had similarly destabilized time and made an enormous impact on the popular and literary imaginations of the period. This parallel between the two worlds suggests that if our world makes the same mistakes as the Othertimers by making a spiritualized idol of Einsteinian temporality, we will soon have degenerated into the same depravity that Lewis’s characters observe through the chronoscope.

In his other works, Lewis frequently associates relativistic temporal distortions with hell and damnation. In his 1942 book *The Screwtape Letters*, for example, he writes in his preface that “the diabolical method of dating seems to bear no relation to terrestrial time” and has Screwtape suggest that demons are keen on manipulating humans’ conceptions of time as a method of temptation (183, 228). Elsewhere, he echoes the modernist heap imagery when he

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22 Despite his failure to perceive Lewis’s active critique of Dunne, Hooper does warn the reader against believing that Lewis actually agreed with Dunne and provides a few useful quotations that show Lewis’s distrust of spiritualism (119-120).
creates imaginative scenarios in which time ceases to progress from one clearly delineated event to another and instead simply accumulates without any meaning or telos. One of the most famous lines from Lewis’s *The Lion, the Witch, and the Wardrobe* describes just such a temporal state in Narnia under the rule of the demonic White Witch, who makes it “[a]lways winter and never Christmas” (118). Christmas, of course, is the moment when Christ—or Aslan, as He is known in Narnia—breaks into our world, offering the hope of redemption from the meaninglessness of time. Christina Rossetti’s poem “In the bleak midwinter,” though obviously written well before the advent of Einsteinian physics, uses winter imagery to suggest rigidity—“Earth stood hard as iron, water like a stone”—and accumulation—“Snow had fallen, snow on snow, snow on snow”—in her description of the world before the coming of Christ (2,3). Lewis, drawing from the same tradition as Rossetti, uses these same images to describe Narnia without Aslan. For Lewis, however, writing in a period more accustomed to the idea of temporal distortion, it is time itself that is rigid and accumulating. Lewis thus uses the literary tropes associated with Einsteinian physics to fire his religious imagination, adding an extra layer of significance to the imagery traditionally associated with the Nativity.

In *The Great Divorce*, in which Lewis imagines a day trip from hell to heaven, Lewis deploys two modernist techniques, combining purposeless temporal accumulation with the hauntedness of simultaneity and projection of the past into space. The narrator who lives in the

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23 Lewis establishes the White Witch’s infernal pedigree when he has Mr. Beaver explain that she is a descendent of Lilith, a “Jinn” who, according to legend, was the first wife of Adam, was replaced by Eve after fornicating with a demon, and went on to produce a large brood of hellish offspring (*LWW* 147).

24 After his conversion to Christianity, Eliot evoked the concept of simultaneity to make a similar point about Christ’s in-breaking when he wrote in his *Four Quartets* that “If all time is eternally present / All time is unredeemable” and that redemption could only come through “the intersection of the timeless / With time” (“Burnt Norton” I.4-5; “The Dry Salvages” V.19).
hellish Gray Towns, observes that “Time seemed to have paused on that dismal moment when only a few shops have lit up and it is not yet dark enough for their windows to look cheering,” and Latta elaborates on this statement when he argues that the narrator exists in a “chronological limbo, where time itself is described in terms of its suspended motion” (Great Divorce 467; Latta 102). Just as Christmas never arrives in Narnia, morning never arrives in the Gray Towns. The future never arrives, but the past continues to pile up. Denizens of Lewis’s hell cannot stand each other’s company and spend eternity moving farther and farther away from everyone else until they are “[a]stronomical distances” from the town (472). To even see the lights in the windows of Napoleon’s house, which has “nothing else near it for millions of miles,” requires the help of “a chap [who] has a telescope;” to visit the Emperor entails a journey of “fifteen thousand years of our time” and yields nothing more than a glimpse of a “little, fat man” eternally pacing and raving (472, 473). Here, Lewis uses astronomical imagery to compare long-dead humans to distant stars, revealing his interest in the modernist thought experiment of “catching up” with the past by moving away from the earth at faster-than-light speeds.25 In fact, this passage from The Great Divorce is almost the epitome of modernist cosmology, comprising several of its major aspects. Whitworth provides a helpful overview of the modernist universe when he uses examples from Aldous Huxley, Virginia Woolf, and the poet Wilfred Wilson Gibson to show that many modernist writers flocked to the “idea that the past is preserved in travelling light rays” partially because it gave “a new twist to the classical… tradition of the stellification of the dead” who, “unlike their earlier counterparts… never reach a final resting place” (177-178).

25 In his preface to The Great Divorce, he makes no mention of any connection between his vision of hell and Einsteinian physics, but he does acknowledge that his portrayal of heaven is partially based on something he read in a science fiction story—generally identified as “The Man Who Lived Backwards” by Charles F. Hall—about time travel (466).
Lewis appropriates these modernist images of anthropomorphized cosmological alienation and places them in hell. It is there that modernist nightmares about lonely universes, meaningless time heaps, and an unstable present haunted by an incomprehensible past all come true.

One final illustration of the spiritual dangers of relativistic time occurs in Lewis’s 1955 Narnia book *The Magician’s Nephew*, in which Lewis uses temporal dilation to warn against selfish spiritual complacency. The two child protagonists of the story, Digory and Polly, stumble into an experiment in interdimensional travel and end up in what Polly eventually calls “The Wood between the Worlds,” which is “a place that isn’t in any of the worlds,” but is instead a forest filled with pools, each of which transports the traveler to a different world (28). In his preface to *Mere Christianity*, published three years before *The Magician’s Nephew*, Lewis uses similar imagery of an in-between place to urge his readers to commit to one Christian denomination or another: “I hope no reader will suppose that ‘mere’ Christianity is here put forward as an alternative to the creeds of existing communions… It is more like a hall out of which doors open into several rooms… [and] it is in the rooms, not in the hall, that there are fires and chairs and meals” (10). Digory further reinforces the connection between these two images when he compares the Wood to a crawlspace that connects several houses and says, “It’s in the houses that people talk, and do things, and have meals” (28). In both *The Magician’s Nephew* and *Mere Christianity*, the liminal place offers neither sustenance nor growth, only stagnation and perhaps starvation. If there is to be any hope of being fed, one must choose a door. Lewis equates this spiritually atrophying indecision with temporal distortion when he writes, “If anyone had asked [Digory] ‘Where did you come from?’ he would probably have said, ‘I’ve always been here’” despite the fact that Digory had only arrived in the Wood a few moments earlier (26). In
the temporally suspended state of the Wood, as in the Gray Towns and the Witch’s Narnia, meaningful events are impossible and “[n]othing ever happens” (28). This distortion of time leads to a potentially fatal complacency. When Digory suggests that they remain in the wood for a time, Polly insists that they go somewhere, or else they will “just lie down and drowse for ever and ever” (27). Here, as in The Dark Tower and The Great Divorce, Lewis follows a tendency that Price identifies as common among post-Einsteinian writers when he mines Einstein’s theories for metaphors and scenarios that enable him to transfer popular anxieties surrounding relativity to his own personal concerns (Price 1, 11). Under Lewis’s pen, the relativized modernist cosmos and the strong emotions it frequently inspires—from the angst of Eliot’s Waste Land to the immortal longings of Dunne’s Experiment with Time—become tools for cultivating a healthy fear of sin and hell.

This is not to suggest, however, that Einstein is confined to the role of stage Devil in Lewis’s moral and spiritual imagination. In fact, Lewis was equally capable of depicting heaven or hell using concepts and techniques drawn from the modernist response to the new physics. While some anti-Einsteinian Christians may have seen the abandonment of absolute time as an attack on the concept of an omniscient and omnipresent observer-God—or at least of our ability to know Him—others, including the authors of the report of the 1930 Lambeth Conference, were more optimistic. Lewis himself seems to accept that time is a mere illusion of the human mind when he writes that his goal, when praying, “is not to escape from space and time” but rather “to re-awake the awareness of that [creaturely] situation” (Letters to Malcolm 109, 111). As was the case with the unvisualizability of space, the impossibility of accessing objective time can inspire proper humility before God. The implication that the Newtonian view of absolute time could
impede that humility suggests that Lewis would likely have agreed with William Gallois, who writes in his 2007 book *Time, Religion and History* that Newtonian time is “an historical anomaly in human culture” and that “Einsteinian time is in many ways similar to ideas which we find in classical religious cultures” (221). After all, temporal relativity appears in both the Old Testament Psalmist’s statement that “a thousand years in [God’s] sight are but as yesterday,” and in the Book of Revelation, when the author claims that Christ, despite having died in the first century, was “slain from the foundation of the world” (Psalm 90:4 KJV; Revelation 13:8 KJV). Christian theologians from the Church Fathers onward described also God using language that would later be used by Einstein and his popularizers. Augustine writes in his *Confessions* that, to God, all times “subsist in simultaneity,” while Boethius suggests that the “present” is a relative concept when he distinguishes between “the present of our affairs,” which “connotes changing time,” and the “divine present,” which “connotes eternity” (qtd. in Jammer 165-166).26 Despite Newton’s insistence on the theological importance of absolute time—which Kant was able to secularize—the history of Christian theology suggests that temporal relativity might actually be more conducive to Christian faith than the stable linearity it replaced. Lewis certainly taps into the discomfort that stemmed from the new physics, but he also understands that that fear could easily lead to a feeling of transcendent wonder.

In his *Chronicles of Narnia*, for example, Lewis uses various aspects of Einsteinian time to stoke the imaginations of his readers. When Lucy first returns from Narnia, she claims to have “been away for hours and hours,” while for her three skeptical siblings, less than a minute has

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26 The Augustine quote is from a 1991 English translation, and I am no Latinist, so it is, of course, possible that “simultaneity” is not the best translation—it certainly is not the only one—and that the word was chosen specifically for the benefit of a post-Einsteinian audience. Even if it is a loose translation, however, the basic concept of simultaneity is still present in Augustine’s thought.
passed (LWW 120). Lucy sticks to her story, and eventually Peter and Susan ask for advice from Digory—now an old man known as Professor Kirke—who says that they “should not be at all surprised to find that the other world had a separate time of its own” and encourages the two older children to believe Lucy (132). Here, Lewis deploys a version of the Einsteinian twin paradox, in which those in Narnia experience time at a different rate than those outside it, although it differs from the classical twin paradox in that any aging the characters do within Narnia appears to be undone when they return to our world.27 Narnia itself, however, does age at a far quicker rate than our world. In Prince Caspian, despite it having been “only a year” in our world since the Pevensies returned to England after the events of The Lion, the Witch, and the Wardrobe, they arrive in Narnia to find that “hundreds of years” have passed (325, 324).28 The fan community that contributes to the Narnian fandom Wiki claims that “The entire Narnian timeline, from its creation to its end (1–2555), ran parallel to 49 Earth-years (1900–1949)” and observes that “[w]hen one was on Earth, there was no way to tell how quickly Narnian time was going,” citing as an example the fact that approximately the same amount of time passes in Narnia in the 40 earth years between The Magician’s Nephew and Wardrobe as passes in the one earth year between Wardrobe and Prince Caspian (“Narnian Time”). Lewis creates this

27 According to the Narnian fandom Wiki, the four siblings spend around 15 years living in Narnia, during which they age normally, but when they return to England, Lewis informs the reader that less than an hour has passed, and that the Pevensies are still the same age they were when they entered the wardrobe (“Peter Pevensie”; LWW 196). Lewis, who argues in “On Science Fiction” that stories of fantastic worlds ought to keep the focus on the magic by avoiding “deep and sensitive characterisation,” seems largely uninterested in the psychological consequences of reverting from adulthood to childhood, though Laura E. Weymouth explores them in her Narnia-inspired 2018 novel The Light Between Worlds (86-87; Paxson).

28 The trailer for the 2008 film version of Prince Caspian features title cards that read “ONE YEAR LATER FOR THEM” and “1300 YEARS FOR NARNIA,” while the Wiki implies that slightly less than a millennium had passed (mundonarniatv; “Narnian Time”).
irregular, relativistic timeline not to plunge his reader into despair and uncertainty, but rather to awaken the desire for adventure, the sense that there is something beyond our uncomplicated perception of time.

The influence of relativistic temporality on the series is not, however, restricted to the relationship between Narnia and our world, but also permeates Lewis’s portrayal of Narnia itself and provides a redemptive version of the jumbled simultaneity that causes despair and disorientation in other modernist works. Whitworth suggests that *Ulysses* and *The Waste Land* share the same sort of “simultaneity” in the form of the “co-presence of myth and modernity,” although I would add that the “complex mingling of past and present” that he detects in Woolf’s *Mrs Dalloway* would also apply to Eliot’s poem (185). For Eliot, the time heap of history amounts to nothing more than a pile of broken fragments. In *Wardrobe*, however, Lewis creates a very different sense of historical simultaneity between the medieval elements of Narnia and the twentieth-century children through whom we see it. In his essay “C.S. Lewis’s Manifold Mythopoeics,” Joseph Michael Sommers argues that Lewis takes the Pevensies away from the dangers of the London Blitz and into “an inherently medieval society” full of “Arthurian-styled flourishs” in order to present the world of Narnia “as an alternative to ours” and, as the title of his 1940 essay “The Necessity of Chivalry”—written in the midst of the decidedly un-chivalrous World War Two—suggests, a potential antidote to ours (102, 103, 105 emphasis in original). In one of his wartime radio broadcasts, Lewis makes a similar point in one of his wartime BBC broadcast talks when he rails against the jaded attitude that “though you have got to fight, you

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29 For another example of “the co-presence of myth and modernity,” see Herman Hesse’s 1934 book *Journey to the East*, in which he attempts to “experience everything imaginable simultaneously” and claims to have “creatively brought the past, the future, and the fictitious into the present moment” (qtd. in Wolfe 128).
ought to do it with a long face as if you were ashamed of it” and urges Christian soldiers to recover the feeling of “gaity and wholeheartedness” that should be the “natural accompaniment of war” (qtd. in Holbrook 280). In Narnia, the simultaneity that produces disillusionment in many modernist works does not turn the Pevensies into men and women without chests who have no faith in the righteousness of their causes and values. In fact, it has the opposite effect, restoring what Lewis sees as the moral clarity of the chivalric past to a confusing, ironical, modernist present. Through this imaginative reconnection with the wisdom of bygone eras, the past can heal the present rather than merely haunting it as in *The Waste Land*.

In addition to his juxtaposition of historical periods, Lewis also creates a simultaneous heap of temporally and geographically distinct myths with which his modern characters interact. In *Wardrobe*, he gives long lists of creatures, both good and bad, the latter of which include “Incubuses, Wraiths… Efreets… and Ettins,” which represent Mesopotamian, Scottish, Arabic, and Norse mythology, respectively (180). To explain this hodgepodge, which Tolkien notoriously detested, Sommers quotes Lewis’s essay “Myth Became Fact,” in which Lewis writes that “[t]o declare Christianity true was not to declare all other religions false” and that he came to Christianity by asking himself, “Where, if anywhere, have the hints of Paganism been fulfilled?” (92; qtd. in Sommers 98). All mythologies, according to Lewis, contain fragments of the truth, and by examining them, the student of mythology can detect certain common elements, all of which find their fulfillment in Christ. This view adds a temporal element to the idea—discussed in the previous chapter—that it is possible to asymptotically approach, though never

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30 In *The Abolition of Man*, Lewis uses the phrase “Men without Chests” to describe products of a skeptical, modern education that seeks only to cynically “debunk” everything and fails to produce “a persevering devotion to truth” (704).
actually reach, objective truth through the summation of all available subjectivities. If rightly considered, the impingement of the manifold mythologies of the past upon the modern individual should produce clarity, not confusion. Both Lewis’s *Wardrobe* and Eliot’s *Waste Land*, for example, contain allusions to the Arthurian Fisher King myth, but while the land remains “arid” at the end of Eliot’s poem, using myth to illustrate the barrenness of modern life, Lewis offers healing (425). His “conflation” of “mythic time, adventure time, folkloric time, and chivalric time” finds its fulfillment when Narnia “thaws and becomes fecund” at Aslan’s return, just as the Fisher King’s land “becomes more fertile as he heals” (Sommers 101, 91, 103). For Lewis, modernist simultaneity can serve as an image of hopelessness and disorientation, but it can also draw together disparate threads of history and mythology, orienting the reader’s imagination toward transcendent truths.

Because God does not exist in time, from God’s perspective, all events are simultaneous. In *Letters to Malcolm*, Lewis refers to this divine simultaneity as “the total act of creation” and the “endless present” and argues that all things, including human beings, are part of this “timeless reality” even though we can only experience it “in the mode of succession,” with one moment following the next (148). In theology, the idea that the human perception of time is not ultimately and objectively true goes back much further than Einstein, but in a cultural milieu in which prevailing assumptions about time had been dramatically destabilized, Lewis was able to use relativistic tropes to express theological truths about time. In *Perelandra*, Lewis imagines the human mind ascending to timelessness, not in the sense of the Promethean spiritualism of Dunne and the Othertimers, but as a participation in the beatific vision. Lewis begins this process early in the book when Ransom, the protagonist, says that angels—referred to in Lewi’s *Space Trilogy*
as *eldila*—cannot wait because they have no bodies and make no distinctions between “duties and spare time” and therefore have no “sense of cumulative duration” (27-28). These angels are not completely outside time the way God is, but they are far closer than humans to the divine perspective. Commenting on this passage, Schwartz suggests that by sending Ransom off to Venus at the beginning of the story and, after just one paragraph, bringing him back a full year later to tell the tale, Lewis draws the reader up into this elevated temporality: “like the *eldila* we’ve been relieved of the burden of waiting” (67). Here, Lewis employs the modernist technique of manipulating narrative time, though he does so not to disorient, but with the intention of foreshadowing Ransom’s joyous encounter with divine temporality and preparing the reader to experience it alongside Ransom.

As he enters into his vision of the Great Dance, Ransom transcends the linear perception of time. Hell may have its own temporality in *The Screwtape Letters*, but in *Perelandra*, so does heaven: “the time in which the Great Dance proceeds is very unlike time as we know it… a far vaster pattern in four dimensions” (278-279). The language of four dimensions, borrowed from Einstein’s theories, demonstrates Lewis’s willingness to use popular interest in the new physics as a tool for evangelism. In the previous chapter, I explored how the confusion of voices that make up the Great Dance sequence constitutes Lewis’s deployment of the modernist technique of polyphony, but there is also an element of temporal distortion in these speeches that is similar to the simultaneity Woolf evokes in *The Waves* (Whitworth 185). Ransom claims that the

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31 The term “duration” is Bergsonian rather than Einsteinian and alludes to Bergson’s theory—which he developed specifically as “a philosophical counterpart to Einstein’s relativity”—that “time exists, operates, and is experienced in ways as variously subjective as the human consciousness” (Latta 45). Lewis’s use of the term therefore implies a view of time that is both relativistic and strongly tied to contemporary debates surrounding the implications of Einsteinian physics.
speeches “followed one another – if, indeed, they did not all take place at the same time” (272).

In the pages that follow, the reader experiences these speeches in a certain order while knowing full well that, even though some of the speeches appear to respond to the ones that preceded them, there is no reason to believe that this sequence is objectively correct. The relative simultaneity of these speeches, however, is not a purely subjective matter to which there can be no answer, but a spiritual paradox cannot be understood by imperfect humans. There is a divine, objective time; we just can’t access it yet. But, Lewis suggests, perhaps someday we will. When the vision ends, Ransom learns that an entire year has passed and asks Tor—Venus’s equivalent of Adam—if he was aware that so much time had passed:

“I did not feel it pass,” said Tor. “I believe the waves of time will often change for us henceforward. We are coming to have it in our own choice whether we shall be above them and see many waves together or whether we shall reach them one by one as we used to.” (280)

Here, Lewis evokes the Einsteinian concept of light as “both a particle and a wave” and the modernist obsession with light—in the form of waves—as the means by which time reaches the observer, and then uses these ideas to craft his religious vision of the divine eternal present (Albright 16, emphasis mine). Lewis deploys the vocabulary of the new physics and the literary techniques it inspired as imaginative doorways into the timelessness of God, in which humans may one day hope to share.

The widely-varying uses to which Lewis puts relativistic time reveal the breadth of his engagement with the new physics more generally. Instead of behaving like a stubborn dinosaur and shrinking from the changing perspective of modernity, he makes use of the new perspectives
and images associated with time that had trickled down from Einstein, through the popularizers, to the literary modernists. In some cases—such as the spiritualistic horrors of *The Dark Tower’s* Othertime, the deadening temporal suspension of the Witch’s Narnia and the Wood between the Worlds, and the astro-temporal distances of the Gray Towns in *The Great Divorce*—Lewis uses Einsteinian time to suggest alienation, stagnation, and spiritual danger. In other cases—including the unpredictable relativity of Narnian time; the simultaneity of myth, medieval chivalry, and modernity in Narnia; and the drawing-up of human characters into divine timelessness in *Perelandra*—suggest Lewis’s willingness to use disjointedness of relativistic time to heal the wounds of modernity and inspire hope in an objective temporality beyond human perception. For Lewis, Einsteinian time—and all the literary tropes that went with it—could serve equally well as a warning or a cure.
CONCLUSION: POST-EINSTEINIAN AGENCY AND THE INTERDISCIPLINARY MINDSET

When the new physics destabilized the old cosmos, introducing new conceptions of space and time, it raised the question of how one might live and act validly in Einstein’s world. In fact, the entire reason to incorporate the science of relativity into literature is to explore how changes in the human understanding of the cosmos affect the ability of the individual to act within that cosmos. Psychologist Jordan B. Peterson provides a useful theoretical framework for understanding this question when he writes in Maps of Meaning that “[t]he world can be… construed as a forum for action, or as a place of things,” that “no complete world-picture can be generated without use of both modes of construal,” and that new knowledge or “[c]atastrophic errors” provide the impetus for us to reevaluate the “conceptualizations of present conditions” on which we base our actions (1, 19). In other words, scientific discoveries about the world of things can, in some cases, force individuals and societies to rethink their methods of phenomenological engagement with the world as a forum for action, methods that often find their full articulation within the realms of “literature and mythology” (Peterson 1). This is especially true in the modernist period, as the scientific revolution of Einstein exploded into the popular imagination in the immediate aftermath of the “catastrophic error” of World War One. Taken together, these two fountainheads of modernism suggested that society had misconstrued the world on both levels—scientific and phenomenological—and would have to use new scientific knowledge alongside practical experience to construct a new way of acting meaningfully within the now-unfamiliar world. The mythic quality inherent in conceptualizing the world as a forum for action helps account for the assimilation of Einsteinian tropes into literature as well as the popularizers’ scramble to ascertain the philosophical implications of
Einstein’s theories, or to appropriate those theories for their own philosophical or theological ends.

The plethora of popularizations of the new physics do not, however, provide any consensus on the question of how to act in a way that feels meaningful and valid within a relativistic universe in which space cannot be visualized, time is a private affair, and the very existence of causality has been cast into doubt. For some, Einsteinian relativity—and the quantum theory of Planck, Schrödinger, and others that was gaining popularity around the same time—suggested a deterministic universe that seemed to leave no room for free will. In his 1942 book *Physics and Philosophy*, Jeans writes that “the world is rational; its happenings are not determined by caprice but by law,” a conception of the universe echoed in Weyl’s monolithic “block universe” and in Einstein’s own statement that “God does not play at dice with the universe” (174; qtd. in Jammer 161; qtd. in Canales 233). Others, however, saw the new physics as a gateway to radical unpredictability and freedom. Canales writes that quantum theory “forced scientists to reevaluate the idea of physical causality, reintroducing into the universe an essential indeterministic quality” with which Einstein—despite his contributions to quantum theory—was uncomfortable, while Jeans argues that matter behaves with “sudden and unpredictable jumps” and “violations of the law of causality,” that “[c]ausality becomes meaningless,” and that the new physics destroys any philosophical basis for “the renunciation of human free will” (233; *Physics and Philosophy* 153; qtd. in Foster 79). Roughly speaking, there does seem to be a trend toward Einsteinian relativity being deterministic and quantum theory being indeterministic, but Jeans’s self-contradictions suggest that, at least in the popular literature, there was no clear dichotomy. In either case, however, the new physics represents an obstacle to valid human
action. If the universe of the new physics is deterministic, then all actions are the result of natural causes and we cannot act freely; if it is lawless and causality is a mere illusion, then it is impossible to act with any reasonable confidence. Coupled with the epistemological implications of the subjectivization of time and space, the ambiguous status of the modernist cosmos made personal agency a fraught concept. Characters frequently find themselves disoriented, leading either to inaction or to action that is misdirected.

The anxiety that therefore accompanied any attempt to act validly within the universe of the new physics found expression in literary modernism, which showed an affinity for characters grappling with a state of indecision or desperation brought on by jumbled simultaneity and isolating subjectivity. In *The Waste Land*, as the time heap of story and history piles up, the wife character in “A Game of Chess” experiences a crippling paralysis, asking “What shall we do tomorrow? / What shall we ever do?” and the narrator attempts to comfort her by drawing her attention to reliably recurring events such as “The hot water at ten” (133-135). Isolated within her own sealed monad and saddled with a husband who appears to be stuck in another time, she despairs of finding anything worth doing. The husband’s reassurance that they live in a temporally stable world leads only to further ennui. Even an act of self-destructive madness—“I shall rush out as I am, and walk the street / With my hair down” like Ophelia just before her

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32 This is obviously not a new philosophical debate. In the 18th century, Joseph Priestley published his deterministic theory of “Philosophical Necessity,” while Hume argued that what we perceive as causality is actually based on nothing more than—as Lewis puts it in *Miracles*—“the majority vote of our past experiences” (xix; 391). The new physics did, however, breathe new life into this debate and provide new arguments to be used by either side.
death—seems preferable to sitting around indecisively while chaotic reality crumbles and whirls around her (132-133). There seem to be only two options: absurd action or no action at all.

Nor is this theme restricted to Eliot. Ebury and Albright detect in Yeats a similar drive toward absurd, desperate, and futile actions in the face of an overwhelming universe. In Ebury’s reading of “He Wishes for the Cloths of Heaven,” she argues that there is a “perspectival instability” between the “speaker’s point of view and… the perspective of the cosmos” that leads the speaker to demand “that the world be unmade” (41). The speaker of the poem desires to act, to grapple with and apprehend the entire cosmos, but instead, he must settle for his own fragile “dreams” (Yeats 8). The attempt to impose his will upon the universe fails and collapses into subjectivity. Albright focuses on Yeats’s fixation with the Irish myth of Cuchulain, who died fighting the waves of the sea in “a blaze of force against an irresistible object” (65). In Yeats’s 1934 introduction to his play Fighting the Waves, he connects this mythic story to Idealist philosophy, in which “a deluge of experience break[s] over us and within us” in a world where swimmer and sea become conflated and “man in himself is nothing” (qtd. in Albright 66). Considering the prominence of Idealist philosophy in Einsteinian popularizations and the strong association of waves with light and time, the Cuchulain myth would appear to demonstrate the impossibility of meaningful action in a chaotic, relativistic world in which the concept of

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33 Prufrock’s question “Do I dare / Disturb the universe?” provides another example of such indecision while also carrying the suggestion of a cosmos that is organized so as to discourage meaningful action (45-46). Because Eliot began the poem in 1910 and published it in 1915, it is difficult to say whether he was at all familiar with Einstein’s theories. According to Foster, Eliot first used the term “relativity” in its Einsteinian sense in a 1916 article, three years before relativity exploded into the popular press, but although it is obvious that Eliot knew about Einstein earlier than the average Briton, it would be difficult to say whether he had any familiarity with the 1905 Theory of Special Relativity at the time that he wrote the line in question (82, 77; Price 1). For this reason, I have included this line, and my commentary on it, in a footnote, but have omitted it from the body of the paper.
causality has ceased to make sense. Even Dorothy L. Sayers, herself no modernist, is clearly attuned to the idea that it is difficult to act in a modernist cosmos and incorporates the paralyzing effects of the new physics into one of her detective novels, in which a character’s “obsession with [Einsteinian] popular science” and its relativized “universe of infinitesimal immensities” causes him to hesitate “on the brink of matrimony,” unsure what significance marriage can have in a world so destabilized and relativized (Price 13, 138). When time collapses in on itself and the laws of causality become either non-existent or else impossible to perceive due to unvisualizability, the question of determinism versus free will becomes an academic one. The universe of the new physics may, at bottom, be either orderly or chaotic, but either way, it certainly feels like the latter.

Lewis clearly engages with these issues of personal agency and the new physics, using the indeterminate qualities of quantum theory to help justify his belief in miracles, perceiving a crack in the cosmos through which the light of the supernatural might slip in. In his 1947 book Miracles, he observes that the old view of the natural world as an “interlocked system” governed by “strict laws” had given way to a theory in which “scientists seem to think—if I understand them—that… the individual unit of matter… moves in an indeterminate or random fashion” (312). This indeterminacy, Lewis argues, implies that there is a domain of the “Subnatural,” and that “if [Nature] thus has a back door opening on the Subnatural, it is quite on the cards that she may also have a front door opening on the Supernatural” (312). In “Religion without Dogma?” he makes a similar claim: “It may be true that the lawlessness of the little events fed into Nature from the subnatural is always ironed out by the law of averages. It does not follow that great events could not be fed into her by the supernatural: nor that they also would allow themselves to
be ironed out” (139-140). This is, of course, a God-of-the-gaps argument that depends for its validity on the then-current understanding of a rapidly changing field. Lewis acknowledges as much when he allows for the possibility that “some new scientific development may... tomorrow abolish this whole idea of a lawless Subnature” (313). That he uses this argument at all, however, implies that he is interested in the new physics. Lewis’s engagement with quantum theory also provides another example of his theme of earthly disorder giving way to divine order. Just as the unvisualizability of space and the instability of time, if properly considered, lead to creaturely humility and a thirst for God’s objectivity, the initially disconcerting concept of an irrational physical world has the potential to inspire a liberating sense of both human freedom and openness to the miraculous and the providential.

At the same time, playing both sides of the argument just as he did with Einsteinian temporality, Lewis occasionally uses language that suggests a divinely governed and monolithic block universe that can be both frightening and bracing. Brown quotes one poem, in which Lewis, soon after his conversion, expresses a feeling of being “constantly hemmed about by God” while he expresses nostalgia for “The changing and the castle-clouded heaven / Of my old pagan times” and describes himself “Beating my wings, all ways, within [God’s] cage, I flutter, but not out” (Brown 105; qtd. in Brown 105-106). Lewis longs for the relative safety of the same cosmic ambiguity that haunts the modernists, but he realizes that there is no escape, not even into the past. All time and space are equally under total divine control. Here, the concept of God’s sovereignty is a somewhat threatening one, although elsewhere Lewis is able to draw comfort from it. In *Letters to Malcolm*, he writes,
[T]he causes which will prevent or exclude the events we pray for… are part of a series which, I suppose, goes back as far as the creation of the universe… That is why, as I hold, our prayers are granted, or not, in eternity. The task of dovetailing the spiritual and physical histories of the world into each other is accomplished in the total act of creation itself. (148)

The universe he describes in this passage is the ultimate, all-containing spacio-temporal heap, though it is not so much a heap as an artfully constructed four-dimensional pattern, willed from all eternity by a benevolent Creator.

The cohesive unity of time, coupled with the Providence that oversees it, makes it possible to act with confidence in the subjective present. By focusing on the here-and-now as “the point at which time touches eternity,” the Christian can avoid becoming distracted like the past-haunted husband and future-ridden wife of The Waste Land (Screwtape Letters 227). This relationship between the present and the eternal can even inspire a sense of urgency. In The Great Divorce, a sinner attempts to postpone repentance to another day, to which angel cryptically responds, “All days are present now,” and at the end of the book, the narrator sees a vision of people “as they appear to themselves and to one another in this world” as chessmen being moved around a silver table that represents time by “gigantic forms” that represent their “immortal souls” (523, 540). In both cases, as Latta puts it, “the eternal subsumes the temporal to the point of conflation” (88). Time is a mere illusion through which we are able to perceive our own freedom (Great Divorce 539). We are free to act within what we perceive as the present, but we can never in this life fully comprehend the significance of our actions within God’s eternal present. These epistemological and temporal limitations threaten to readmit all the crippling
uncertainties of modernism, but Lewis’s theologization of these limitations as subordinate to and ordained by solid divine reality offers comfort for those who might otherwise sink beneath the deluge of subjective experience. In *Perelandra*, as Ransom hesitates to perform a task he has been given, he comes to a sudden realization: “The thing was going to be done… It was a mere irrelevant detail that it happened to occupy the position we call future instead of that which we call past” (184-185). This moment of modernist temporal distortion within a block universe preserves Ransom’s freedom and reassures him of the significance of his choices.

Through his engagement with quantum theory, temporal relativity, and concept of the block universe that frequently manifests itself as the modernist time heap, Lewis salvages meaning from a universe steeped in absurdity. The Einsteinian cosmos, unlike the medieval Model he describes in *The Discarded Image*, is neither “limited and intelligible,” nor governed by a clear hierarchy of values, but rather unvisualizable and relativistic (12). It is, however, those very qualities that turn the imagination toward the transcendent and imbue with faith every action undertaken in that state of incomplete knowledge. Human perceptions of time, space, and causality may be neither objective nor complete, but Lewis uses Ransom to provide an example of a character who learns that although he must act under these limitations, his actions do ultimately have meaning from a divine perspective. In *Perelandra*, Ransom finds himself paralyzed by indecision until he is told that “distinction between things accidental and things designed… was purely terrestrial” and comes to realize that fragments of “earthly experience” between which we perceive no connection may in fact be connected within the “larger pattern” (182). He feels a moment of anguish at his human plight, “to be still a man and yet to be forced up into the metaphysical world,” and yet the realization that his actions and those of others have
been guided by God toward a better end than he or they could ever perceive or imagine ultimately gives him the courage to act (183). It is impossible to act with certainty, but one can always act with faith. Einstein may have broken the old world’s jaw, but perhaps the old world needed to be humbled, and the old, potentially idolatrous certainties abandoned. Relativity cast Western Civilization into a cosmos not unlike the desert of Exodus: a harsh and disorienting place, but also a place that encourages, and indeed demands, greater reliance on God. Only under His auspices, Lewis suggests, can the post-Einsteinian world remain a forum for meaningful action.

This question of how to act in a relativistic cosmos is, of course, one that has found expression in the works of a wide variety of authors in the hundred years since Einstein overthrew the old universe. Two possible areas for further study suggest themselves to me. The first would be to explore how Lewis’s fellow Inklings—including J.R.R. Tolkien, Owen Barfield, and Charles Williams—turned Einstein’s theories toward spiritual ends. Williams would seem to be the most promising. In his novel Many Dimensions, a lawyer says that most witnesses, when speaking “on their own subject,” can be “as direct as a straight line before Einstein” (20). This reference to the curvature of space suggests a universe in which what was once thought to be settled and reliable may in fact be less than certain. Price offers another example, this one from the popular press, of Einsteinian terminology being imported into the courtroom to unsettle the justice system (30). The novel itself is highly theological and centers on a mysterious Stone from the crown of King Solomon that enables whoever possess it to travel in space and time and, Schwartz notes, within a multiverse of other worlds as well (Williams 8; 34

Eliot expresses something similar in “East Coker” when he writes that “For us, there is only the trying. The rest is not our business” (V.18).
Schwartz 156). Lewis himself, in “On Science Fiction,” praises *Many Dimensions* as a “fine working out of the logical consequences of time-travel” (92). A study of Williams, religious faith, literary modernism, and the new physics could also include Williams’s novel *Descent into Hell*, which employs relativistic simultaneity in the form of a climactic time paradox when the protagonist’s heroic 16th-century martyr ancestor gains the courage to accept his martyrdom only when his 20th-century descendant prays for him (189). It would also be possible to pursue a book-length study of the how the Inklings as a whole responded to Einsteinian physics particularly and popular science more generally. In such a project, Diana Glyer’s *The Company they Keep* and *Bandersnatch*, which explore how the Inklings influenced and collaborated with one another, would be invaluable resources.

The second avenue for further study would be to focus on religious faith and the new physics more generally. The tug-of-war over the philosophical and theological implications of cosmology has certainly continued in the decades since Lewis’s death. For example, Carl Sagan’s 1980 television series *Cosmos: A Personal Voyage* and its 2014 sequel hosted by Neil DeGrasse Tyson, has promoted a vision of the scientific sublime, often using quasi-religious rhetoric to promote an otherwise atheistic message, while on the other side, the evangelical Christian Pastor Louie Giglio uses the same sort of cosmological grandeur in his 2012 book *Indescribable* to turn the imagination toward God’s creative power. This theologically charged discourse surrounding popular science also continues to manifest itself in fiction. The children’s books of Madeleine L’Engle, which explore space-time distortions and quantum states and are often viewed as liberal, latter-day Narnia novels, would certainly benefit from such an analysis. Tom Wolfe, who studied the psychedelic movement in his *Electric Kool-Aid Acid Test*, named
Einstein and the “micro-physical events of modern physics in which the eye of the beholder becomes an integral part of the experiment,” as key influences on LSD culture and hippy spirituality, suggesting the discoveries of the new physics could open up new avenues for “unit[ing] subjective… events with objective phenomena” through spiritual exploration—a project not dissimilar to Lewis’s—and reaffirming the apparently inherent spirituality of Einsteinian physics as well as its applicability beyond the modernist movement with which it was contemporaneous—if such a concept as contemporaneity has any meaning (Wolfe 126). Several 21st-century films, including 2001’s Donnie Darko and 2014’s Interstellar, also blend the relativistic temporalities and spatial distortions of Einstein-inspired science fiction with the imagery of religious faith, raising the question of how one might act validly in an unknowable universe.35 In this emerging field of literature and physics—to which I hope spirituality will soon be added—the work of authors like Albright, Ebury, and Whitworth are foundational and ought to be extended—as Price has successfully done—beyond the narrow domain of canonical literary modernist authors. I further suggest that any further studies of faith, the new physics, and literature would do well to acknowledge Lewis as among the first to creatively Christianize the popular and literary discourses surrounding Einstein’s theories.

More broadly, I hope that this thesis will suggest to other scholars the fertile ground that exists at the intersection of literature, religion, and science. The trend in many universities today is for the arts and sciences to seal themselves off from each other, each robbing itself of the insights that could be gained through interdisciplinary collaboration. By encouraging literature

35 Even popular films like Marvel’s Ant-Man and the Wasp—in which one character is lost in the spatially and temporally unstable underworld of the “quantum realm,” is resurrected, and returns having gained the power to heal by touch—could provide material for a fruitful analysis of the seemingly natural affinity between religious imagery and the images and metaphors associated with the new physics.
students to take “baby” science courses designed solely to fulfill requirements without wrecking GPAs, universities treat the sciences as a chore and an afterthought, rather than as a rich worldview charged with imaginative potential. Philosophy of science courses—such as the required Studies in Science, Faith, and Technology class at Grove City College—usually have some success in reconciling science with theology and philosophy, but often fail to recognize the ways in which contemporary science can and must, as Eddington put it, “affect the general current of human thought,” lending its themes, questions, and metaphors to art, literature, politics, and a variety of other fields usually considered part of the humanities (qtd. in Jammer 156). There is, in fact, a rich interplay between the sciences and the arts, one that Lewis acknowledges in The Discarded Image when he writes that “in every age the human mind is deeply influenced by the accepted Model of the universe. But there is a two-way traffic; the Model is also influenced by the prevailing temper of mind” (222). By studying how extra-scientific ideas impose themselves on scientific theories and how those theories are expressed or distorted through popularizations and find their expression in literature, we can progress toward a more integrated view of the world as both a scientific world of things and a mythic forum for action. As Einstein himself said, “science without religion is lame; religion without science is blind” (qtd. in Jammer 11). By analyzing the new physics in his scholarly and apologetic works and imaginatively integrating it into his mythopoeic works, Lewis—though admittedly lacking a formal “scientific education”—was able to bridge the gap between these two fields of study (Miracles 313). Scholars and students everywhere, regardless of their faith commitments or lack thereof, would do well to take note of how Lewis used philosophy and theology alongside
imaginative literature to interrogate science, while also using science to enliven the imagination through which he expressed his philosophical and theological convictions.

Lewis may have been a proud dinosaur who largely avoided works of literary modernism, but he was not ignorant of the discourse surrounding Einsteinian physics, and in fact showed a willingness to incorporate the tropes, themes, and metaphors of the relativistic modernist cosmos into his own works. Lewis may have suggested in *The Discarded Image* that Einstein’s theories had little effect on the popular and literary imagination of his generation, but Lewis’s own fiction, non-fiction, and poetry, and the growing body of scholarly work exploring the influence of the new physics on canonical modernist authors like Yeats and Eliot, prove otherwise. Lewis did not ignore contemporary currents of secular thought, but instead sought to redeem them. While the vision of the Einsteinian cosmos that trickled down through the popularizations and into literary modernism tended to emphasize disorientation, subjectivity, loneliness, absurdity, and despair, Lewis took another approach. By exploring, and borrowing imagery from, quantum theory, curved space, and temporal relativity and employing modernist techniques such as polyphony, narrative fragmentation, temporal dilation, and piled-up simultaneity, Lewis was able to use the uncertainty of the modernist cosmos as a warning against sin while also mining that cosmos for metaphors, images, and arguments that express the beauty of divine realities and offer comfort to those who feel lost in the relativistic universe. Space, time, and causality may be beyond our knowledge, but those limitations are God-ordained and temporary and can even, paradoxically, bring us nearer to God. For now we see through a glass darkly, but one day we will see face to face.
APPENDIX A: THE “SPARTAN NACTUS” QUESTION

Hooper’s title—“A Confession”—is taken from Lewis’s later revision and re-titling of the poem, while King’s—“Spartan Nactus”—is taken from the poem’s original publication in a 1954 issue of Punch. King’s translation of this title sheds no light on its meaning. He translates “Spartan Nactus” as “Spartan having obtained” without acknowledging that this title makes no sense, much less attempting to identify it as a quotation or place it within any sort of context. A quick Google search was sufficient to correct King’s oversight. The full line, taken from Erasmus’s mostly-lost Latin translation of a lost play by Euripides, reads “Spartam nactus es; hanc exorna.” It is usually translated as something like “Your lot is cast in Sparta, be a credit to it.” It is a common school motto—Loretto, a boarding school in Scotland, translates it as “Sparta is yours: adorn it”—and was quoted by Edmund Burke in Reflections on the Revolution in France (“School Motto”; Burke 153). It seems as if King used a dictionary or translation software to translate the two words without attempting to put them in any sort of context.

Nor is King the only scholar to miss Lewis’s intended allusion. In “C.S. Lewis’s Prufrockian Vision in The Great Divorce,” Charles A. Huttar makes no attempt to translate “Nactus” and instead suggests that the title refers to “someone who feels out of his element… literally a Spartan, a dweller inland, who finds himself swimming in the sea” (11). Because Huttar and other scholars refer to the poem as “Spartan Nactus,” it is clear that the error of using “Spartan” rather than the correct spelling of “Spartam” was not King’s alone. I also doubt, however, that a well-trained medievalist like Lewis would make such an elementary mistake in Latin grammar, so the most likely culprit seems to be his editor at Punch. To test my theory that the Punch editor misread Lewis’s handwritten “m” as an “n,” I examined Lewis’s holograph fair
copy of “Spartan Nactus,” located at the Bodleian Library, but unfortunately it does not include a handwritten title—although the “m” in “Jerusalem” at the end of the poem could offer a clue.

Figure 1: The “Spartan Nactus” holograph fair copy from the Bodleian

A perusal of a handwriting sample from Wheaton College’s Lewis archives shows that in 1958—just a few years after “Spartan Nactus”—Lewis had a habit of forming the second hump of the letter “m” rather carelessly, resulting in a letter that resembles an “n.” The final word of that handwriting sample is “them,” but it could very easily be mistaken for “then.”

Figure 2: Lewis’s “m” that resembles an “n”

King himself provided my most important piece of evidence when he directed me to a particular letter in the third volume of Hooper’s edited compilation of The Collected Letters of C.S. Lewis. In this letter, written to Hooper on December 15, 1962, Lewis offers corrections to
Hooper’s recent bibliography of Lewis’s work, instructing Hooper, “for Spartan read Spartam” (1393). This letter clearly shows that Lewis intended the title to be “Spartam Nactus” rather than “Spartan Nactus.” In a 1958 letter to the magazine Christian Century Lewis reveals that he generally submitted his work in typewritten form and that he employed a typist—who may not have shared his expertise in Latin—when he asks the magazine, which had just published his “Rejoinder to Dr Pittinger,” to also publish a statement to the effect that “‘populam’… is either my typist’s or your printer’s error for ‘populum’?” (378). It seems highly likely that, when Punch published “Spartan Nactus” four years earlier, there was a similar error on the part of Lewis’s typist, Punch’s editor, or both. Either the typist mistook Lewis’s handwritten “m” for an “n” and the Punch editor failed to notice the error, or Lewis’s typist typed the title correctly and the Punch editor believed “Spartam” to be an error for “Spartan,” which would be an easy mistake for anyone not familiar with Latin or with the original quotation to make. It also seems entirely possible that Lewis, who mentions that he did not belong “to a press-cutting agency,” may never have seen the poem printed with the incorrect title and remained unaware of the error until he saw Hooper’s bibliography (Letters to Malcolm 159). Whether he knew of the error or not, though, his letter to Hooper leaves no room for doubt as to his intended title.

As I explained in the body of my thesis, “Spartam Nactus”—as a synecdoche for the full quotation—would be a fitting title for a poem accusing the modernists of having treasonously abandoned their duty to their civilizational patrimony. In light of the Hooper letter, Lewis’s intended title for the poem was clearly “Spartam Nactus,” and I therefore conclude that “Spartan Nactus” was an error that arose without Lewis’s knowledge at some point during the process of publication.
## Appendix B: Works by Lewis Cited in This Thesis, by Year of Publication

<table>
<thead>
<tr>
<th>Year</th>
<th>Title and Editions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1933</td>
<td><em>The Pilgrim’s Regress</em></td>
</tr>
<tr>
<td>1938</td>
<td><em>Out of the Silent Planet</em></td>
</tr>
</tbody>
</table>
| 1939 | *The Abolition of Man*  
*Perelandra* |
| 1940 | *The Problem of Pain*  
*Miracles* (revised 1960) |
| 1942 | *The Screwtape Letters* |
| 1943 | *The Great Divorce*  
*Religion and Science* |
| 1944 | “Horrid Red Things” |
| 1945 | *The Magician’s Nephew*  
“The Last Battle”  
“The Shoddy Lands” |
| 1946 | “Religion without Dogma?” |
| 1947 | *Miracles* (revised 1960)  
*The Discarded Image*  
*Letters to Malcolm, Chiefly on Prayer* |
| 1949 | *The Problem of Pain*  
*Miracles* (revised 1960) |
| 1951 | *Prince Caspian*  
*Mere Christianity* (based on BBC radio talks delivered 1941–1944) |
| 1952 | *The Voyage of the Dawn Treader*  
*Religion and Science* |
| 1954 | “Cradle-song Based on a Theme from Nicolas of Cusa”  
“Spartam Nactus”  
“Pittenger-Lewis and Version Vernacular”  
“Rejoinder to Dr Pittenger” |
| 1955 | *Surprised by Joy* |
| 1956 | *An Experiment in Criticism*  
*A Grief Observed* |
| 1958 | “Pittenger-Lewis and Version Vernacular”  
“Rejoinder to Dr Pittenger” |
| 1961 | *The Discarded Image*  
*Letters to Malcolm, Chiefly on Prayer*  
*An Experiment in Criticism*  
*Letters to Malcolm, Chiefly on Prayer* |
| 1964 | |

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Appendix C: The Othertimer Time Square from *The Dark Tower*

Figure 3: The Time Square

“Let the square which represents the plane of two-dimensional time be ABCD, and let XY and OP be two time-lines traversing it in the eckwards-andwards direction. It is clear that if AB and DC represent any reality—that is, if the square is not infinite as [the Othertimer scientist who created the Time Square model] had at first supposed—they also will be time-lines. But it is no less clear that the same is true of AD and BC. There will be times proceeding either from eckwards to andwards or from andwards to eckwards. In that case X and O, which from our point of view are the beginnings of time itself, are in fact simply moments, successive to one another in AD time. And if the directions of all the four times run the right way—i.e., from A to B, B to C, C to D, D to A—then a consciousness which succeeded in passing, say at Y, from the
XY time to the BC, and at C from the BC time to the CD, and so on, would attain to endless time, and the Time Square, though finite, would be endless or perpetual” (*Dark Tower* 107-108).
WORKS CITED


Print.

Price, Katy. Loving Faster than Light: Romance and Readers in Einstein's Universe. Chicago: 

Priestley, Joseph. The Doctrine of Philosophical Necessity Illustrated; being an appendix to the 
Disquisitions relating to matter and spirit. To which is added an answer to the Letters on 
<https://books.google.com/books?id=YJX8GwAACAAJ&pg=PA1&source=gbs_toc_r&
cad=4#v=onepage&q&f=false>.

Root, Jerry and Mark Neal. The Surprising Imagination of C.S. Lewis. Nashville: Abingdon 


motto/33875.html>.


