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The Mythological Conditioning of Scientific Naturalism

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Northrop Frye has argued that what we call plot in narratives is capable of being rendered as theme. Because of this, the thematic meaning of a story may arise in an audience's consciousness merely through exposure to that narrative's plot. But what if the theme embedded in plot is opposed to other meanings that are more manifest in a story? This is something that occurs, for instance, when the form or plot of the Gospel narrative serves to structure stories that are otherwise predicated upon naturalistic assumptions. This occurs in what I call the E. T. myth, various science fiction tales about benevolent extraterrestrial gods who visit scientific redemption upon the earth. These stories borrow the narrative form of the Gospels, but they advance a naturalistic world view. After Frye I argue that while these stories are "mythologically conditioned" by what he calls the "displacement" of theistic ideas into tales that are otherwise naturalistic. Religious meanings are imported into a naturalistic world view to produce a form of ideological syncretism. The recurrence of this pattern in scientific rhetoric is explained by the fact that the identity of modern science was formulated around theistic concepts in its early history.

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The similarity that Stephen Spielberg's *E.T. The Extra-Terrestrial* bears to the story of Christ is unmistakable.[1] Here is a tale about a heavenly being who briefly descends to walk among us. He demonstrates powers of prophecy and healing and makes nature do his bidding. The full expression of these miraculous gifts is witnessed only by certain child-like souls, a few flawed creatures who gather around him to form

his small band of disciples. But he is hated and rejected by the established priesthood, by elite members of the very order that had faithfully prophesied his arrival. In their determination to destroy him they form a corrupt and hypocritical alliance with a cynical political establishment. Eventually he falls into their hands and is killed. But he rises from his tomb and ascends back into heaven. Before his departure he gathers a few of his faithful friends, and with his final words assures them that he will always be with them.

When we describe the story in this fashion—without making mention of the fact that its protagonist's power is scientific rather than supernatural—we might easily mistake it for the Gospel. It is evident that the rhetorical magic of Spielberg's art works by stripping the Christian narrative of its theistic flesh and rebuilding upon its bare skeleton his own story. But why? What would inspire secular thinkers like Spielberg and others who have created similar tales to use the Gospel in this way? One clue may lie in C. S. Lewis' interpretation of a similar pattern in modernist theology. In an essay entitled "Myth Became Fact," Lewis observed that even modernist theologians who reject the historical character of the Gospels have seemed uniformly unwilling to reject its central narrative.[2] They embrace the Christian story in spite of their doubts concerning its historical truth value, Lewis argued, because they continue to recognize at some level that it "is myth that gives life."[3] In observing this Lewis was arguing that the meaning of the Christian story can be separated out from its historicity. While the historical value of this narrative matters to Christians, as it did to Lewis himself, its meaning does not depend entirely on its historicity and persists even for those who do not believe it really happened.

This observation has important implications for those cinematic poets who incorporate the plot of the Gospel into secular tales. If Lewis is right, then secular narratives that are structured by the Christian story may also contain some of its religious meaning. As with the modernist theologians that Lewis discussed, we might suppose that this is because they have an enduring attraction to the Christian message, but this case is dif-

ferent in one important sense. Unlike the modernist theologians they do not acknowledge this religious aspect of their stories. In these instances the elements of the Christian story are instead embedded within narratives that present themselves, on the surface at least, as dealing with strictly secular concerns. This fact suggests a different motive and a different outcome.

I would like to advance this interpretation: when *E.T. The Extra-Terrestrial* and dozens of kindred tales appropriate biblical plots they bring meanings to these otherwise secular messages that are needed but which can only be gotten from a religious source. By blending theistic and naturalistic themes these narratives are able to promulgate a form of scientific naturalism that transcends its own philosophical limits. Once leavened with Christian ideas, naturalism steps outside its own epistemological bounds and is able to make appealing a world view that would otherwise be repugnant to the public psyche. A story that merely affirmed a naturalistic position could never enchant as these ones do; for the determinism implied by naturalism, as their creators undoubtedly realize at some level, is the dust of death. Naturalism by itself is incapable of sustaining the sense of hope with which these stories invest the scientific world view.

The E. T. narratives offer a remedy for this problem. They express the naturalistic assumptions of the scientific establishment, but at the same time use the vehicle of myth to blend in some of the traditional millenarian thought that first established science's place in western culture. In other words these tales syncretize naturalism and supernaturalism; by taping the symbolic depths of the Christian story they put the fatalistic implications of naturalism in eclipse.

Such blending of the sacred and secular is well known to students of literature. Throughout history, as Northrop Frye once noted, every society has tended to merge dominant religious narratives "insensibly into, and with, literature."[4] Other scholars who have attempted to explain this pattern argue that the symbolism of religion appears wherever human societies exist simply because, as Emile Durkheim famously put it, religion "is the soul of society."[5] They assume that social groups exist only

by being linked to the sacred and that the patterns of symbol making that sustain this endure even in secular ages. These linkages manifest in varied ways, for instance in the invention of civil religion by secular states, in the worship of celebrity and, for those of us in the humanities, in the oracular import attached to the fashionable academic voices of our generation. Why should science be any different? It too exists as a culture, albeit a professional culture, and it too is susceptible to the chaos of anomie. If we have overlooked this, it may only be because science has made such a deliberate effort to insist upon its own strictly secular and professional character. It proclaims itself above myth, but everything that has been learned about the intimate relationship between religious symbolism and social order in the last century tells us that such a separation is never entirely complete.

Science and Hope in the Seventeenth Century

In thinking about the E.T. myth in this fashion, I wish to presuppose that it is of a piece with the broader culture of modern science. It is representative of how that culture reaches out to the world at large in an attempt to make it more receptive to its ideology and interests. One reason for thinking this a safe assumption is the fact that many who have authored such narratives, for example Carl Sagan (*Contact*) and Arthur C. Clarke (*2001 A Space Odyssey; 2010*), have themselves been prominent members of that scientific culture. But a more important reason is the fact that these stories bear such a clear resemblance to the foundational narrative of modern science—which happens to have been explicitly religious. They are vestiges of an earlier period in which the scientific identity was shaped by the broader religious culture of Europe. This religious understanding of science's place in the world has been forgotten by all but a small band of scholars with a specialized interest in the social influences that shaped the scientific revolution, but it survived science's secularization in the Victorian era and is still recognizable in certain features of scientific communication. Collectively these ideas imbue science with the sense of hope that radiates

from movies like *2001, A Space Odyssey* and *Close Encounters of the Third Kind.* They surround science with an aura of mystery and elicit the tantalizing suggestion that it is part of a benevolent plan or purpose at work in the fabric of things and leading toward some great and magnificent destiny.

Before getting back to the subject of the extraterrestrial movies that I have introduced already, I would like to take a brief look at the themes that emerged in this earlier period, since they will account for many of the features of these contemporary narratives. There is no mistaking the fact that science got a significant push from religion in the seventeenth century. Science began to prosper in this period because it came to be seen as a participant in history—in sacred history—as a distinct expression of Christian charity at work to redeem a fallen nature. Even though an inward gravitation toward naturalism eventually worked to erode this explicit attachment to religious thought, it is a pattern of thought that did not disappear so much as merely retreat into an underworld of scientific thought.

Science's open affiliation with religious thought and practice took shape in a rhetorical movement whose primary architect was Francis Bacon. A somewhat naïve enthusiast of the new science, Bacon had a negligible impact on its intellectual development, despite offering voluminous advice on this subject. But he also happened to be one of England's keenest political thinkers, and thus the considerable rhetorical genius he brought to the advocacy of science had much bearing upon how the professional ethos of science was constituted.[6] Bacon crafted this identity simply by writing the story of science's advent into the preexistent narrative of Christianity—more specifically into the Protestant narrative of religious reform. I mean by this that he cultivated a view of science which succeeded in ensuring that its identity would be absorbed into the religious ethos of the Reformers.

In particular there are two features of the Protestant outlook that were linked to science in this early stage of its professional development which have permanently shaped its public persona. The first was the epistemic ethic of Protestant-

ism that is reflected in the slogan *sola scriptura*, the notion that the preeminent obligation of the faithful is to give assent only to religious claims derived from a careful and exact reading of the Bible. The formulaic expression of science's early appropriation of this idea is found in the doctrine of the "two books." The "two books" metaphor represented a traditional conceptualization of the relationship between special and natural revelation: if the Bible, as special revelation, was the "book of God's Word," then nature was the "book of God's Works." This idea in Christianity dated back to the patristic period, but in Bacon's hands it was reconfigured so as to forge a specific alliance between empirical science and the exegetical ethic of the Reformers.[7] The attitude toward inquiry into natural things taken by natural philosophers employing methods of rigorous observation and experimentation, Bacon argued, was the logical counterpart to Protestant notions of theological construction.[8] He projected that as the renewal of spiritual truth had followed from the exclusion of all doctrinal resources outside of Scripture, so would the fullness of scientific truth now follow from the methods of empiricism—of *sola natura*. This made science the natural ally of the Reformers and Bacon himself a "true priest of the senses," and a "not unskillful interpreter of her oracles."[9] Likewise his followers, as priestly exegetes of "the book of God's Works," would gain a professional identity that was not only distinct but also connected in an explicit way to the world of sacred things and to the values that emanated from religious reality.

Bacon's insistence that scientific modes of inquiry express the same ethic which had been responsible for the purification of Christianity led logically to his second linkage with the Reformation, his claim that science participated in the same millenarian narrative in which the Reformers had already situated their movement. Since the Reformers insisted that all religious truth comes from Scripture, they were also required to find a biblical justification for their own separation from the Catholic Church. Because the Bible's millenarian prophecies have to do with the Church's spiritual purification as it approached its eternal destiny at the end of history, they provided the Reformers with a logical

point of entry into the biblical narrative. Their movement was elevated as a manifestation of the Holy Spirit's work of preparing the Church for Christ's return.

If science was an expression of the same spiritual impulses that had given rise to the Reformation, Bacon reasoned that it must also be reflected in the prophecies that foreshadowed that movement. The fact that scientific learning was experiencing a growth spurt all across Europe in concert with these religious reforms invited this association, and Bacon found a biblical substantiation for this connection in the prophetic oracle of Daniel 12:4 that in the end times "many shall run to and fro, and knowledge shall increase." He argued that just as the end times had brought global navigation, it had also brought the increase of knowledge, or "science," in the Vulgate Bible from which he quoted.[10] Once associated with God's purification of the Church science became a co-participant in the spiritual purposes that the Church was destined to achieve in history. If the spiritual body of the Church was the spiritual body of Christ on earth, science was her hands—the hands with which God would work to heal a fallen creation.

Bacon accentuated this connection by placing Daniel's prophecy on the frontispiece of his *Instauratio Magna*, the great unfinished work by which he thought to launch this scientific phase of the Reformation.[11] The phrase *Instauratio Magna*, or "great renewal" was meant to suggest the idea that broader secular reforms should necessarily coincide with the theological reforms of the Protestant movement. The scope of reform that had begun with the Protestant movement was about to be extended from this theological core out into every other arena of human concern that was touched upon by religious truth. The biblical exemplar for this, from which came the term *instauratio* (Ezra 4:13, 5:9), was the Old Testament account of Israel's religious renewal after its Babylonian exile. Much as with the Protestant reforms, Israel was returning to God's revelation after the period of Babylonian enslavement which had resulted from its theological apostasy. But its return to Palestine also coincided with its outward work of rebuilding the Temple of Solomon, and in this

relationship Bacon found the analogous relationship between science and the Reformation. Just as the spiritual reforms which led these ancient Israelites back to God's word had also inspired their rebuilding of the Temple, so were the Protestant reforms now destined to lead to the rebuilding, through science, of the natural world that the Temple symbolized. This was because, as God's dwelling place on earth, the Temple was also a symbol of the creation in Old Testament thought, a typological representation of the world as it had been before the Adamic fall and as it would once again be after Christ's return.[12]

This idea is augmented on Bacon frontispiece by an engraved image of the two pillars which marked the entry way into this sacred building. Looking through them the reader no longer sees the interior of the Yahweh's Temple but rather a vast ocean, the interior of the earthly Temple of God which science was destined to prepare for Christ's triumphal entry at the end of time.

In the decades that passed between Bacon's death in 1626 and the formal establishment of English science during the Restoration this vision was taken up by other Protestant activists who saw it as providing a broad blueprint for the reform of English education.[13] Like Bacon's first efforts to gain patronage from James I for the establishment of a scientific institution devoted to the new experimental science, these utopian schemes also failed, despite attracting the sympathy of the Puritan faction in the Long Parliament. But they sustained and broadened a movement that was destined to ripen in the decade of the Restoration with the formation of the Royal Society of London. Despite King Charles II's unwillingness to provide financial patronage for this fledgling scientific society, this was nevertheless a watershed moment in the institutional history of science. By obtaining royal patronage scientific practitioners also obtained a distinct professional identity; they were given a place within the same symbolic matrix within which other professional people, clergymen, philosophers, and physicians, found public value.

Space limitations make it impossible to fully trace the influence of Bacon's narrative upon the formation of this scientific

institution, but the very public character of institutions makes the appeal to such generalized notions of social identity more or less inevitable.[14] Before science could become institutionalized it would necessarily need to appropriate the symbols that were already at work to constitute public identities, since even technically oriented institutions belong, in part at least, to a broader sphere of social existence. To have a public ethos science could no longer be a merely a technical thing, and this transformation required that it have an identity formulated out of these symbolic substances which gave life to other public entities. Thus it was not because the English had cornered understanding of the techniques of scientific investigation that they became the scientific leaders of that century. That technical knowledge had been available throughout Europe, by this time probably for centuries.[15] What English scientists discovered was a rhetorical formula that enabled them to take possession of a distinct identity, a professional ethos. In England, as elsewhere in Europe, science had always been merely an accessory interest attached to other professional activities, such as mathematics, medicine or philosophy.[16] But the Baconian narrative put it at the very center of what made life meaningful for English Protestants, the hope that human endeavors were guided by Providence and leading up toward the end of all wickedness and human misery.

We might think that this interaction of myth and science is only a reflection of the kind of religiosity that predominated in Bacon's day and that the professionalized science of our own secular age would have no truck with such fantasies. But while the ascent of naturalism that coincided with the professionalization of science in the Victorian era may have driven this activity underground, it is not buried so deeply that it does not occasionally poke up through the surface. The fact that science continues to drape itself in this sense of hope in popular presentations of its world view suggests that some important residues of this formative era endure in contemporary iterations its identity. The sense of hope that manifests in the E.T. narratives represents one limb extending from a vast cultural tree that draws its sustenance up through a Baconian trunk.

This interpretation of the E. T. stories is also supported by the theory of cultural evolution articulated by Clifford Geertz. In his great treatise on the symbolic dynamics of cultural evolution, Geertz advances the thesis that cultures never create out of "whole cloth." Rather they

> merely choose certain combinations from a repertory of ideas anteriorly available to them. Stock themes are endlessly arranged and rearranged into different patterns: variant expressions of an underlying ideational structure which it should be possible, given enough ingenuity, to reconstitute.[17]

What Geertz claims as a lifelong observer of the symbols that constitute group identities is also borne out simply by a moment's reflection on what science would necessarily need to do in any age to establish and maintain its social position. To have a place in public life it would need to have some intrinsic value and purpose, something a semi-official ontology of materialistic naturalism could never provide. There is no detectable value or purpose in a naturalistic universe, or at least no authoritative scientific criteria that could justify such beliefs, and for this reason the public discourses of science could never be entirely consistent with what it seems to claim in the technical sphere. In early modernity, accordingly, science established its social position by identifying itself with certain religious values, with a zeal for truth as something imposed upon us from without and with the aspiration to find purpose in history. It could never abandon such ideas so long as the culture that supports it had not abandoned them.

This is borne out by the fact that even the arch-protagonist of scientific skepticism, the same Thomas Huxley who invented the label "agnostic" and who brought science into close association with the brand of unbelief that term has come to represent, persistently invoked the symbols and narratives of Protestant Christianity, even in the midst of his aggressive campaign to divest the Anglican Church of influence in English universities.[18] Like the scientific priests of Bacon's imagining, the class of

professional scientists that Huxley sought to raise up in England were to be the truest Christians. His boast to the broad churchman Charles Kingsley was that

> science teaches in the highest and strongest manner the great truth which is embodied in the Christian conception of entire surrender to the will of God. Sit down before fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever and to whatever abysses nature leads, or you shall learn nothing.[19]

Here we have a version of the argument by which Bacon had aligned science with the Reformation two and a half centuries before, but with a new twist. In comparing science here to the exegetical ethic of Protestant Christianity, Huxley was not seeking to align it with the dominant religious perspective of his culture. Rather, he was trying to present science as the natural descendant of Christianity.[20] Now science was no longer the secular expression of the ethic of true Christianity; it was the true Christianity. Christianity had evolved into science.[21]

As Huxley put this in an 1873 letter to his wife, modern science represented "a gigantic movement greater than that which proceeded and produced the Reformation, and really only the continuation of that movement."[22] Although Huxley did not work in the generic arena of narrative, what he was doing in these two letters and in many other orations and essays, anticipates what we see going in the E. T. narratives of our own day. Like his Positivist counterparts in France, Huxley was working with the same borrowed themes of religion that appear in the syncretized narratives that we now find in the E.T. stories. He was striving to redeem naturalism by blending in spiritual themes.

The Interchangeability of Plot and Theme

The open effort of Huxley and other positivists to incorporate religious premises into the framework of a naturalistic world view seems to have collapsed in the late nineteenth century. But the fact that the rhetorical needs which drove that effort

persist, should cause us to expect these meanings to manifest in alternative ways. The E.T. myths, I would allege, are one of these alternative ways. By stretching the skin of naturalism over a Christian skeleton, the E.T. myth creates at least the appearance that naturalism can be made consistent with the hope of scientific salvation. Myth, we might say, is able to cover a multitude of inconsistencies. The intermingling of Christian and materialistic world views is able to suggest a future in which the ever expanding "is" of scientific knowledge makes it possible for human beings to achieve the "ought" of moral perfection. These narratives have the effect of seeming to attribute this moral evolution to science, but in fact this hope is a rhetorical effect arising from the Christian ideas that have been blended into these tales. The premises of Christianity that sustain this faith remain present even as they are veiled in these imaginative works.

If they go unnoticed it is likely because those who imbibe such tales are so caught up in their outward scientific trappings that they will not notice the fact that they are embracing in imagination assumptions about which the culture of modern science is at best officially silent, and at worst openly hostile. In short, consumers of the E.T. narratives outwardly encounter a naturalistic story about the ever-evolving scope of science, but their understanding of these narratives continues to be informed by meanings, religious themes that is, that come from the Christian story of salvation.

A feature of narratives frequently discussed in the work of Northrop Frye may explain how this is possible, the fact that a story's form or structure is capable of being translated into propositions or themes—the ideas that we take from stories. Narratives themselves, in other words, exhibit a kind of grammar that is capable of being translated into a thematic or conceptual form. Thus when we encounter narratives we approach ideas or themes under a different form, a form which enables them to be internalized even though they may not be fully manifest to consciousness. Frye has argued that such ideas may become more evident as audiences repeatedly visitation these narrative representations. As we follow a story our

> attention shifts from the sequence of incidents to another focus: a sense of what the work of fiction was all *about*, or what criticism usually calls its theme. And we notice that as we go on to study and reread the story, we tend not to reconstruct the plot, but to become more conscious of the theme, and to see all incidents as manifestations of it.[23]

But a complication arises in the E.T. stories. Here there are plots that come from Christianity, stories about scientific gods who perform miracles and even die for their earthly disciples, but these are intermingled, through what Frye calls "displacement," with the premises of scientific naturalism.[24] Because they manifest only in a form of syncretism, it is possible that their Christian themes lie just below the threshold of consciousness but close enough to the surface to matter—close enough to contribute to sustaining the millenarian faith of our scientific culture.

Those familiar with the exegetical practices that religionists bring to biblical narratives will recognize what Frye means by the translation of plot into theme. They are accustomed to translating what is presented as story in Scripture into the propositions of Christian theology. In Christian readings of the story in John's Gospel of Jesus' encounter with the Samaritan woman at Jacob's well (John 4: 1-30), for instance, this happens more or less spontaneously. Although the story contains overtly thematic elements in the instruction Jesus offers the Samaritan woman concerning his own identity and the character of true worship, its plot can also be translated into theme as one reads out an interpretation of its protagonist's actions. For example, by the very act of speaking with, but not condemning this woman of questionable character and questionable doctrine, Jesus teaches about himself, about the relationship between judgment and grace and the universal availability of that grace. Jesus, this plot teaches, came not to judge but to invite all, even outsiders and transgressors, to repentance. But these meanings are not stated, though they could have been; rather they are enacted. They arise from the narrative itself, and yet the thematic

significance they elicit is of no less importance than the themes openly articulated by Christ.

The skepticism of those who allege that primitive Christianity was of St. Paul's making because its main ideas find their clearest thematic exposition in his letters, only shows that modernity gives presumption to genres that favor the thematic presentation of ideas. The theology that is expressed in the Pauline epistles in fact is found in the Gospels, but there it is couched in the grammar of narrative. The eighth chapter of Romans does not add anything to what is offered in the Gospel narratives; it only translates what the Gospels present in the grammar of plot into thematic representations. The narrative came first, and its primacy over theme is affirmed by Jesus himself (Luke 7: 22-23). When John the Baptist sent messengers from his prison cell seeking to know if Jesus is "he who is to come," we might say that he was asking for a thematic affirmation of Christ's identity as Messiah. But what Jesus offers him is plot: "tell John what you have seen and heard: the blind receive their sight, the lame walk, lepers are cleansed, and the deaf hear, the dead are raised up, the poor have good news preached to them." The themes of messianic theology, in other words, are present in the sequence of events that comprises Christ's ministry.

Active readers of the Bible are accustomed consciously to read theology out of such events. The habit of expecting to find theological ideas within religious plots is as old as Christianity itself, and, given the universality of myth, it is arguably a native feature of our hermeneutic sensibilities. But this ordinary interpretive practice is likely to occur in a more subconscious fashion in the case of secular literature, since it is not recognized as myth or revelation. For the more traditional religionist, the theological messages that are openly presented in John's Gospel coincide closely with the theology that is inferred from its plots. This ordinary interpreter will merely blend these sources together without paying much attention to the fact that some of these ideas are given as propositions and others are inferred from the narrative itself. But a complication arises with the E. T. myth. Here anti-theistic ideas have been laid over plots lifted

from the Bible. As a result the Gospel-like ideas that arise from their Gospel-like plots are occulted by the more dominant secularist notions with which they are mingled. Consumers will take in meanings having to do with the sacrificial character of scientific rationality without realizing that they are imbibing a kind of secular theology in the process.

But if such theological meaning in science fiction is veiled by being embedded in plot, that may make such stories all the more attractive to their creators by enabling these ideas to be promulgated without attention being drawn to the fact that they come from outside the sphere of scientific naturalism and in fact contradict its premises. As I said earlier, my supposition is that those who embrace scientific naturalism are drawn to myth because it brings to science something that merely profane modes of discourse cannot provide, namely the sense that the enlargement of scientific ways of encountering the world is our natural destiny. This providential theme goes against the official view, taken by most scientists since their culture came under the domination of naturalistic philosophy a century or so ago, that metaphysical speculation has been banished from its presence. This may be widely promoted in science education, often under the banner of "methodological naturalism," seemingly because it makes the limits of knowledge equal to the limits of science—thereby enlarging scientific authority. But at another level the proscriptions imposed by this semi-official philosophy work against science's need to justify its place in the world. Because naturalism strips the world of value, science is stripped of value as well.

Thus while the professional face of science maintains an official party line of reductive naturalism, it is likely to tolerate and perhaps even to promote literary expressions that compensate for the human chaos this threatens to create. If I am right about this, then it would be fair to suspect that the E.T. myth is more than mere entertainment. The latitude of expression provided by cinema enables the scientific culture to sustain value associations that are of great interest to it but which cannot be openly acknowledged in the more ideologically restrictive context of

professional communication. Fiction compensates for these inhibitions both by removing such arguments to a more informal context and by representing these valuations in a somewhat veiled fashion, as I have already suggested, by presenting as form what it would not dare to openly state as theme.

The interchangeability of plot and theme explains how Christian meanings could be present in these secular stories without really drawing much attention to themselves. But I also mean to suggest that something may be communicated through the narrative form itself that cannot be translated into a thematic representation. It is not just that Christian themes are smuggled into otherwise secular stories under the cover of plot. Mythical narratives also elicit an order of involvement with ideas that is qualitatively different from what would occur through a merely thematic presentation. We might call this *participation*, a term used by Mircea Eliade to describe the power of religious stories to draw us into the realities they represent.[25]

By way of analogy, C. S. Lewis treated this phenomenon in a brief essay entitled "Meditation in a Toolshed" where he describes two modes of observing a beam of sunlight passing through the interior of a darkened shed.[26] The beam of light could be looked *at*, in which case it would presented itself only as an object, a break in the darkness revealing nothing more than the specks of dust suspended in the air through which it passed. But when he moved so that the beam fell on his eyes he had an experience that was altogether different. In looking now *along* the beam both the tool shed and the light beam itself were no longer visible. Now he saw "green leaves moving on the branches of a tree outside and beyond that, 90 odd million miles away, the sun." In looking *along* the beam he came to the knowledge of something that is completely distinct from what he knew by looking *at* it.

So it is with stories. We might look at them when describing their characters and the events that transpire in their telling, but sometimes—when they are looked along—they involve us in a quite different way. One would have to suppose that these two ways of encountering narratives correspond to the different

ways that believers and unbelievers read the Gospel. While the unbeliever looks *at* the story of Christ, the believer looks *along* it, participating in Christ's death and resurrection, entering into it as a participant who has been "crucified with Christ" (Gal. 2:20). Like Lewis standing in the path of a light beam, they are taken inside the Gospel, taken into Christ's life by aligning their being with his. The faith that makes this possible is not so much a state of mind as it is a state of experience, the experience of being caught up—baptized one might say—into the drama of the Christ.

If the identity of the believing hearer is caught up with that of Christ, what then happens in imitations of the Gospel to readers who are drawn into the life of a secular messiah, when they are looking along a plot line which is Christian? If faith in Christ entails an act of participation in his story, then do the consequences of this same faith arise for those who participate in heretical variations on the Gospel? My answer is that because these secular tales represent a form of syncretism, they do elicit such hope. Audiences enter into the E. T. myth because their faith in the prospects of science invites them in, but what they experience in looking along this story is the hope of Christ.

The 1951 film, *The Day the Earth Stood Still*, may serve as an illustration.[27] It has often been recognized as the prototype for all the E.T. stories that have followed. Based on a screenplay by Edmund H. North, who consciously patterned it after the story of Christ, it tells the story of an alien named Klaatu who descends upon our own Jerusalem, the city of Washington D. C., to preach a message of repentance and salvation.[28] The substance of this message, that the earth is doomed unless it turns from its violent ways and embraces the scientific rationality he has brought down from the heavens, is rejected by the very authorities who are best equipped to understand him—the Washington priesthood that holds in its hands the powers of science newly unleashed by nuclear physics. They persist in their unbelief even when Klaatu performs great miracles to substantiate his message. Rather than embracing him and the great gift he extends, they kill him. But even in his death Klaatu's

heavenly science overcomes the fallen knowledge of his earthly counterparts. It enables him to rise from the dead and ascend back into the heavens. Just before his departure he entrusts his message to a handful of scientists who have gathered around him: "join us and live in peace, or pursue your present course and face obliteration."

As with the Gospel narrative, in looking *at* this story we see one set of meanings; in looking *along* it we see another. In the first instance it is only a depiction of an imagined reality based on what we would call the scientific world view. Its main character represents a conjectured future in which great advances of knowledge and technology have made it possible for civilizations to overcome the sorts of dangers that our world currently faces. In this regard it is a fantastical exploration of the possibilities of science and technology. Like other scientific romances, this one simply dramatizes a kind of a fortiori argument: if we can do so much with the little knowledge we currently possess, imagine how much we could do with a hundred or a thousand times more.

But as this story introduces its vision of the prospects of knowledge it organizes these ideas around a plot that we experience along another meaning dimension. Klaatu comes with a message both of judgment and salvation that reenacts the story of Christ's ministry on earth. His mission is to warn the world of impending doom if it does not embrace the scientific rationality of the heavenly civilization from which he has come as ambassador. But this message is also an invitation. If humanity will embrace science it may also enter into its kingdom. It will be granted membership in the heavenly civilization that Klaatu represents. In spite of the many scientific miracles he performs in support of his claims, Klaatu's message is rejected by the majority of those who hear it. Only a few of the pure of heart can received it, Helen Benson, a young widow, her son Robbie, and the great theoretical scientist, Professor Barnhardt, who is quite obviously based on the character of Albert Einstein.

The story comes to a head when Klaatu performs a global demonstration of science's unlimited power by briefly neutral-

izing the world's electrical power, while sparing hospitals and airplanes in flight. But still the worldly powers will not hear him, and Klaatu is betrayed and shot down by police in the streets of Washington. As with the death of the biblical Christ, Klaatu's murder is both an ultimate expression of the law and an ultimate expression of grace—or at least their counterparts in this scientistic myth. Just as the death of Christ represents humanity's rejection of God's law, so also the killing of Klaatu represents its rejection of the gift of scientific knowledge which, as this alien proclaims, is the only path it can take without destroying itself. Thus in killing this heavenly ambassador the entire world reveals that it is under a sentence of death, not by this act in and of itself but by virtue of what it says about the human condition. Humanity has invited its own destruction. This is symbolized in the movie by the grave danger that arises with Klaatu's killing. Klaatu was accompanied in his mission to earth by Gort, one of the robotic police created to maintain the absolute peace which his scientific civilization enjoys, and the killing of this messianic messenger will release through this robot the wrath of this heavenly civilization upon the earth. This "system," as Klaatu calls it, is inflexible. As with the Old Testament law the wages of sin is death, and Klaatu's killing will activate total destruction.

But in the moment of death Klaatu utters words of grace. He passes on to Helen Benson the utterance "Gort, Klaatu barada nikto" which she uses to deactivate Gort's programmed destruction. Rather than destroying the world, the wholeness of scientific power that has been invested in this robot becomes instead an instrument of salvation. Gort carries Klaatu's body back to his spaceship sepulcher where he is brought back to life. In the film's final scene the ascension of the resurrected Klaatu is witnessed by a group of the faithful. The same scientific knowledge which has given back his life also facilitates his journey back to the Father. His followers are left both with the warning against the sins of irrationality and the promise of scientific salvation.

In light of Frye's theory, we would have to suppose that

to the extent that this plot emulates that of the Gospels, it also presents thematic elements whose meanings cannot be divorced from this religious source. The story's theme of salvation, in other words, retains ideas which come from the story of Christ, even though those ideas are now intermingled with the idea that it is knowledge rather than holiness that is the absolute good. In other words, truth claims of a quite different kind lie alongside those of scientific naturalism in this film. It might easily be mistaken for a narrative that exalts scientific materialism, but it does not do this purely. This mixture of religious and naturalistic meaning is evidenced by the religious source of the plot elements that are found in these stories. But there is something in the effects that such narratives have on us that supports this as well. In "looking along" these messages, as Lewis would describe this way of experiencing narrative meaning, we discover that they produce an experience of consciousness that is also familiar to us in more typical sorts of religious representation. I have vivid memories of first seeing *The Day the Earth Stood Still* as a child. It was the first experience of cinema that produced in me a sense of the numinous. The movie filled me with awe, as of standing before something great, powerful, mysterious and holy. Subsequent iterations of its plots in films such as *2001, A Space Odyssey*, *Close Encounters of the Third Kind* and *Contact* seem to elicit the same experience.

A second thing that I remember about seeing this film was its affirmation of an idea that, even at age six, I had already begun to pick up from the world around me: the idea that science could do all things. In retrospect, I suspect that these two things were connected, that they arose from the fact that the movie invited me into the narrative grammar of the Gospel, even as I contemplated its scientistic premises. I may have thought this hope came from the possibilities of knowledge that are dramatized in the story, but really it was elicited because it invites viewers to participate in the life, death and resurrection of Christ—albeit a Christ dressed up in scientific costume.

Implications

What does this mean? Religionists might regard this as a positive feature of secular art. It shows that the myths manufactured in Hollywood participate in the message of Christianity even as they seem to reject it in their more overt themes. Just as pre-Christian myths seem to anticipate the story of Christ, these post-Christian narratives seem to reflect the residues of the biblical story in a secular culture that no longer seems to care for it substance. But such imitations may also invite the suspicions of religionists. Since their authors know what sacred resource they are appropriating, they may be guilty of a kind of distortion we would not presume to find in the unknown poets who gave us Balder and Apollo. The ancient counterparts to such modern myth makers as Stephen Spielberg, and Stanley Kubrick are not Virgil and Homer but rather Marcion and Valentinius.[29] Much like these ancient Gnostics, the poets of scientific naturalism deliberately draw from the Bible but they proclaim their own knowledge-centered myth as the true revelation. As a world view scientific naturalism is not made more wholesome by its blending with the story of Christ. It is made more enchanting but also more poisonous. In essence this is because its mythological conditioning, to use Frye's term, enhances the spiritual attraction and perhaps the believability of the naturalistic fallacy.[30] Within these stories the *is* of our ever expanding understanding of the natural universe is conflated with the *ought* of Christ-like perfection that is dramatized by the sacrificial behavior of their protagonists.

Klaatu is only the first in a long line of benevolent extraterrestrial visitors who display not only perfection of knowledge but of virtue as well. These stories suggest that just as the growth of knowledge has incrementally enlarged our control over the world it is also capable of incrementally improving the human character. It hardly needs saying that experience belies this assumption at every turn. The growth of scientific knowledge since the generation of Galileo has produced no discernable improvement in the human character. The average sixteen-year-old of our own day knows more about nature than even the most brilliant

virtuosi of the seventeenth century, simply by virtue of living four centuries down stream. But this offers no moral advantage. Ethical judgment may be informed by knowledge, but the power to do right is not. We may avoid, for instance by virtue of our understanding of the germ theory of disease, certain health risks that Galileo or Milton would have unwittingly indulged in. But the vast store of scientific information at our disposal seems to give no edge whatsoever in our battle against laziness, overindulgence, selfishness, pride and other legion vices.

We might expect that in more professional contexts scientific naturalists would deny what their mythology seems to assert, but in some sense they cannot help but promote this sort of Gnostic creed. To insist that nature is all that is, as scientific naturalists are wont to do, is also to insist that virtue must belong to nature and must be capable of being explained, predicted and controlled by scientific techniques. Many who subscribe to this philosophy have dealt with the fact that this is not borne out by experience simply by repudiating the very idea of moral truth—if you cannot scientize it discard it. But this is unworkable for scientists as a group. Too much is at stake. Science is not an island that can cut itself off from the more general concerns of other human beings. Science is a costly enterprise that depends upon public goodwill for its continued survival and prosperity. The fact that its semi-official commitment to a philosophical naturalism is rejected by most Americans constantly jeopardizes this relationship, and so it is not surprising that the artistic side of science, the right brain of the scientific culture, would look to myth as a corrective.

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Endnotes

[1] *E.T.-The Extra-Terrestrial,* dir. Stephen Spielberg, perf. Dee Wallace Stone, Henry Thomas, Peter Coyote, Robert MacNaughton, Drew Barrymore, Universal Pictures, 1982.

[2] C. S. Lewis, "Myth Became Fact," *God in the Dock: Essays on Theology and Ethics,* ed. Walter Hooper (New York: Eerdmans, 1970) 63-7.

[3] Lewis, "Myth Became Fact" 65.

[4] Northrop Frye, "Myth, Fiction, and Displacement," *Theories of Myth*, ed. Robert A. Segal, vol. 4 (New York: Garland Publishing, Inc., 1996) 132.

[5] Émile Durkheim, *The Elementary Forms of the Religious Life*, trans. Joseph Ward

Swain (London: George Allen & Unwin, 1915) 419.

[6] Thomas M. Lessl, "Francis Bacon and the Biblical Origins of the Scientific Ethos," *Journal of Communication and Religion* 15 (1992): 87-98.

[7] This is a commonplace probably going back to Tertullian. "We postulate that God ought first to be known by nature, and afterward further known by doctrine—by nature through His works, by doctrine through official teaching." Quintus Tertullian, *Against Macion*, trans. and ed. Ernest Evans (Oxford: Clarendon, 1972) 1.18; The metaphor also harkens back to St. Paul's well-known declaration in the letter to the Romans that "Ever since the creation of the world [God's] invisible nature, namely his eternal power and deity , has been clearly perceived in the things that have been made." Romans 1:20, RSV.

[8] Francis Bacon, *The Works of Francis Bacon*, ed. and trans. James Spedding, vol. 3 (New York: Garrett Press, 1968) 221.

[9] Bacon, *Works*, vol. 4, 226.

[10] Bacon, *Works*, vol. 3, 220-1.

[11] Bacon, *Works*, vol. 3, 7.

[12] For a detailed discussion of this symbolism in Bacon's rhetoric see Charles Whitney, *Francis Bacon and Modernity* (New Haven: Yale UP, 1986).

[13] Robert Fitzgibbon Young, *Comenius in England* (1932; reprint, New York: Arno Press & The New York Times, 1971), 25-48; John Amos Comenius, *Via Lucis*, trans. E. T. Compagnac (London: Hodder & Stoughton, 1938).

[14] Perhaps the best evidence for this is found in the words of the Royal Society's official biographer, Bishop Thomas Sprat, who presented Bacon as the inspirational figure chiefly responsible for bringing it into existence. Sprat also commissioned from Abraham Cowley a poem for inclusion in his *History of the Royal Society,* in which Bacon is likened to Moses. Thomas Sprat, *History of the Royal Society of London, for the Improvement of Natural Knowledge,* 3rd ed. (London, 1722).

[15] Edward Grant, *The Foundations of Modern Science in the Middle Ages: Their Religious, Institutional, and Intellectual Contexts* (Cambridge: Cambridge UP, 1996).

[16] Joseph Ben-David, *The Scientist's Role in Society: A Comparative Study* (Chicago: U of Chicago P, 1971) 45-87.

[17] Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973) 351.

[18] Adrian Desmond, *Huxley: From Devil's Disciple to Evolution's High Priest* (Reading, MA: Adisson-Wesley).

[19] Thomas Henry Huxley, "To Charles Kingsley," 23 September, 1860, *Life and Letters of Thomas Henry Huxley*, ed. Leonard Huxley, vol. 1 (London: Appleton, 1901) 316.

[20] This becomes most evident in the various essays and speeches that Huxley gave on Christianity. Here Huxley attacks the traditional supernatural assumptions of the Christian faith, but insists, even as he does so, that he speaks on behalf of the true intentions of its founder. See, Thomas Henry Huxley, *Science and Christian Tradition* (New York: Appleton, 1898) 263-392.

[21] This was a common theme of the positivist movement launched by Auguste Comte in France, and which spilled over into England in the 1860s. Comte rationalized this by contending that there were elements of positive knowledge within Christianity which presaged the fuller development of the scientific society which he himself proposed. Auguste Comte, *Republic of the West Order and Progress: A General View of Positivism*, trans. J. H. Bridges (Stanford: Academic Reprints, 1953 [1848]) 2; Auguste Comte, *The Positive Philosophy*, trans. Harriet Martineau vol, 1, 3rd ed. (London: Kegan Paul, 1893) 39-48.

[22] Thomas Henry Huxley, "Letter to Henrietta Huxley," 8 August, 1873, vol. 2, *Life and Letters* 111.

[23] Frye, "Myth" 122.

[24] Frye, "Myth" 132.

[25] Mircea Eliade, *The Sacred and the Profane* (New York: Harcourt, Brace and World, 1959) 68.

[26] C. S. Lewis, "Meditation in a Toolshed," *God in the Dock: Essays on Theology and Ethics*, ed. Walter Hooper (New York: Eerdmans, 1970) 212-5.

[27] *The Day the Earth Stood Still*, dir. Robert Wise, pert. Michael Rennie, Patricia Neal, and Hugh Marlowe, Twentieth Century Fox, 1951.

[28] Kenneth von Gunden and Stuart H. Stock, *Twenty All-time Great Science Fiction Films* (New York: Arlington House, 1982) 44.

[29] Thomas M. Lessl, "Gnostic Scientism and the Prohibition of Questions," *Rhetoric and Public Affairs* 5 (2002): 133-157.

[30] Northrop Frye, *The Great Code: The Bible and Literature* (New York: Harcourt Brace & Co., 1982) xviii.