Roman Catholic Views of Extraterrestrial Intelligence: Anticipating the Future by Examining the Past

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The United Nations required years to come to a decision that the Society of Jesus reached in ten days. In New York, diplomats debated long and hard, with many recesses and tablings of the issue, whether and why resources should be expended in an attempt to contact the world that would become known as Rakhat when there were so many pressing needs on Earth. In Rome, the questions were not whether or why but how soon the mission could be attempted and whom to send...

The Jesuit scientists went to learn, not to proselytize. They went so that they might come to know and love God's other children. They went for the reason Jesuits have always gone to the farthest frontiers of human exploration. They went ad majorem Dei gloriam: for the greater glory of God.

— from the prologue of the novel *The Sparrow*¹

Why Theology?

When one first considers using theology to advance the scientific Search for Extraterrestrial Intelligence (SETI), this seems like an improbable partnership indeed. SETI scientists pride themselves in their reliance on empirical evidence gathered through advanced technologies to answer the question, "Are we alone?" In contrast, theology is often seen as being founded upon personal faith or subjective beliefs, which are not readily subjected to verification by a community of objective scientists. How then does theology have any relevance to scientific concerns with the possibility of extraterrestrial intelligence? It would seem that there are at least four benefits to be gained by a study of theological perspectives on extraterrestrials.

First, a better understanding of the range of possible extraterrestrial intelligence-whether biological or artificial-may influence the search strategies employed by SETI scientists. For example, if we come to the conclusion that other species are likely to be naturally inclined to avoid strife and discord, and instead to show altruistic concern for others, then we have some basis for searching for freely beamed signals, intentionally directed our way. In contrast, if we expect extraterrestrial civilizations to be guided by more selfish motivations, then they might be willing to engage in interstellar communication only if their species has something to gain from it-such as information transmitted by us as part of an interstellar barter. Given that we cannot know for sure about the nature of extraterrestrial intelligence before making contact, these often implicit assumptions about extraterrestrials may have a significant impact on the amount of resources we allocate to various search strategies, e.g., to active vs. passive searches. Even if we do not think of our underlying assumptions about extraterrestrials in specifically religious terms, nevertheless theological reflections may help make our *implicit* assumptions more *explicit*, which is an important process in the evolution of any scientific enterprise.²

A second motive for examining theological perspectives is to help anticipate the consequences of future contact. As I have noted previously, "in the event of a detection of a signal from ETI [extraterrestrial intelligence], there would probably be a significant religious response. If there is discussion of these complex issues prior to signal detection, the SETI community will be better prepared to deal with them in the event that a SETI experiment is successful."³

^{1.}**Mary Doria Russell**, *The Sparrow* (New York: Villard Books, 1996), p. 3.

^{2.} **Douglas A. Vakoch** and **Hans H. Strupp**, "The Evolution of Psychotherapy Training: Reflections on Manual-Based Learning and Future Alternatives," *Journal of Clinical Psychology* (in press).

Empirical research has shown that religious individuals are less likely to believe that extraterrestrial life exists than are less religious people. When presented with a hypothetical scenario about the detection of an information-rich signal from extraterrestrials, the more religious American undergraduates in the study-as compared to their less religious counterparts-were more likely to assume that the senders of the message had hostile intentions. In addition, these more religious Americans were more resistant to sending a reply message.⁴ In short, religious and nonreligious individuals may respond quite differently to news that we have detected extraterrestrial intelligence, with these differences possibly affecting public policy decisions that will be made after signal detection. This is particularly true in perhaps the most likely scenario, in which we know little about the beings sending the message, if for no other reason than that it would probably be difficult to decode their message and thus learn about them.⁵

Moreover, we may benefit from "thought experiments" about the nature of extraterrestrials, because such exercises may allow us to expand beyond our habitual assumptions about ways that intelligent beings will encounter the world and one another. In the process, we can expect to gain a better perspective on ourselves: "If we can understand that our way of encountering the universe and our views of spirituality only begin to express the range of ways that intelligent beings deal with Ultimate Reality, we are guaranteed to gain something very powerful: a more humble, more realistic, and yet paradoxically more complete and more extensive understanding of our own place in the universe."⁶ This may hold true even if we never actually make contact with life beyond Earth, but "encounter" other forms of life only in hypothetical scenarios of our own construction.

Finally, in the process of attempting to imagine alien forms of intelligence that evolved independently on other worlds, we may be better prepared to anticipate and effectively deal with new forms of Earth-based intelligence—whether natural, artificial, or genetically modified. These new life-forms could evolve either naturally or through intentional design, both on Earth and beyond our home world. Theological speculations may be particularly fruitful for helping to imagine forms of intelligence having their origins on Earth, but evolving under very different, perhaps hostile conditions in extraterrestrial environments.

The Age of Space

At the beginning of the Space Age, the possibility of life beyond Earth increasingly became a topic for serious discussion among scientists. But scientists did not have a monopoly on the subject. Starting in the 1950s, theological speculations about extraterrestrials were seen in response to increased space exploration. For example, Father T. J. Zubek began his "Theological Questions on Space Creatures" by citing recent accomplishments of space exploration. Another author noted that the theological implications of extraterrestrial life were being considered "with a heightened interest in this beginning of the Age of Space."8 Writing in 1962 on conjectures about the existence and nature of extraterrestrials, the Executive Secretary of the American Rocket Society maintained that the "liveliest speculation" came from Roman Catholic theologians.⁹

Though theologians have continued this conversation through the present day, most of the issues central to contemporary discussions were identified decades ago. Thus, it is the beginning of the modern concern with the theological implications of extraterrestrials, and not more recent developments, that will be the central focus of this paper. To illustrate the variety of views that can be held within a single religious denomination, I will focus on perspectives maintained by Catholic clergy and others writing in Catholic publications between 1955 and 1965. In addition, I will briefly note more recent Catholic

^{3.}**Douglas A. Vakoch**, "Communicating Scientifically Formulated Spiritual Principles in Interstellar Messages," Paper IAA-99-IAA.9.1.10 presented at the SETI I: Science and Technology Session of the 50th International Astronautical Congress, Amsterdam, The Netherlands, October 1999.

^{4.}**Douglas A. Vakoch** and **Yuh-shiow Lee**, "Reactions to Receipt of a Message from Extraterrestrial Intelligence: A Cross-Cultural Empirical Study," *Acta Astronautica* (in press).

^{5.}**Douglas A. Vakoch**, "Signs of Life beyond Earth: A Semiotic Analysis of Interstellar Messages," *Leonardo* 31 (1998): 313-319.

^{6.}**Douglas A. Vakoch**, "Framing Spiritual Principles for Interstellar Communication: Celestial Waves," *Science & Spirit* 10 (November/December 1999): 21.

^{7.} **T. J. Zubek**, "Theological Questions on Space Creatures," *American Ecclesiastical Review* 145 (December 1961): 393.

^{8.} John P. Kleinz, "The Theology of Outer Space," *Columbia* 40 (October 1960): 28.

^{9.} James Harford, "Rational Beings in Other Worlds," *Jubilee: A Magazine of the Church and Her People* 10 (May 1962): 19.

views about extraterrestrials, and I will suggest ways that we might draw upon these past theological reflections as we prepare for the possible future success of SETI.

To preview my more detailed discussion, the dominant position of this group was that belief in extraterrestrial beings is consistent with both science and Christian theology. Most of those who took a position on whether such life is probable argued that it is. Moreover, it was generally agreed that if extraterrestrials exist, such beings would be made in the image of God with the purpose of glorifying their creator. There was less consensus about the extent to which such beings would be successful in this task. But in spite of differences of opinion about the nature of the relationship between extraterrestrials and God, there was most often a common framework for such speculations.

Ad Majorem Dei Gloriam

While scientists were interested in a wide range of extraterrestrial life, theologians had much narrower concerns. Zubek—a priest whose views will be noted repeatedly in this paper—was interested "only in creatures similar to us, composed of spirit and body." Another priest whose name will reappear often in the following pages, Father Daniel C. Raible, shared this view, saying he was concerned neither with "subhuman life," because it has no eternal destiny, nor with angels, because they are not material beings. The position that Raible stated explicitly, that he would focus on beings with both a material and a spiritual nature, was also accepted by others, often implicitly.¹⁰

A recurring view in writings of the time was that there is nothing in the Catholic faith to dismiss the possibility of extraterrestrial beings.¹¹ According to one priest, "Revelation, the common teaching of the Fathers, tradition, the solemn pronouncements of the Popes—none of these say there cannot be life other than on earth."¹² One anonymous author, writing in *America: A Catholic Review of the Week*, compared the silence of the Bible on extraterrestrial life to its silence on the indigenous people of the Western Hemisphere.¹³

Some went further and maintained that the existence of extraterrestrials is not only *consistent* with Catholic theology, but there are good reasons to think that such beings *actually* exist.¹⁴ The most common argument was that extraterrestrials would add to the glory of God. In the words of one Catholic theologian, "The supreme world aim is the glorification of God through rational beings.... Should we assume there to be nothing but deserts in all these [other] worlds?"¹⁵

Two ways were identified that extraterrestrials might glorify God. First, simply by existing they would unconsciously give glory to God. Second, as rational beings they would also have the duty to glorify God consciously.¹⁶ Some held that extraterrestrials might even glorify God better than humans do.¹⁷ Father L. C. McHugh, whose views will be elaborated throughout this paper, used the glory of God to suggest that extraterrestrials may be common. He conceived of the glory of God not as the adoration of God, but as a *gift* of God to God's own creation. "After all, God made this gigantic material fabric for His glory," wrote McHugh, "not for His glory as a benefit to be gained by Himself, but as one to be spread abroad, especially among beings capable of knowing and loving Him."18 This argument for the existence of extraterrestrials was not universally maintained, however. One Jesuit suggested that even if humans were the only rational beings in the entire universe, God would still be sufficiently glorified.¹⁹

^{10.} Zubek, p. 394; Daniel C. Raible, "Rational Life in Outer Space?" America: A Catholic Review of the Week 103 (13 August 1960): 352 (article condensed in Daniel C. Raible, "Men from Other Planets?" Catholic Digest 25 (December 1960): 104-108 and summarized in George Dugan, "Priest Suggests Rational Beings Could Well Exist in Outer Space," New York Times (7 August 1960): 14.

^{11.}A. Carr, "Take Me to Your Leader," *Homiletic and Pastoral Review* 65 (December 1964): 256; J. D. Conway, "The Question Box," *Catholic Messenger* 82 (6 August 1964): 10; Harford, p. 18; John J. Lynch, "Christians on Other Planets?" *Friar* 19 (January 1963: 29; L. C. McHugh, "Life in Outer Space?" *Sign: A National Catholic Monthly Magazine* 41 (December 1961): 28; "Space Theology," *Time* 66 (19 September 1955): 81; **Zubek**, p. 393-394.

^{12.}Kleinz, p. 36.

^{13. &}quot;Messages from Space," *America: A Catholic Review of the Week* 111 (12 December 1964): 770.

^{14.}**Carr**, p. 255; **Conway**, p. 10; **Angelo Perego**, "Rational Life beyond the Earth?" *Theology Digest* 7 (Fall 1959): 178 (summary of **Angelo Perego**, "Origine degli esseri razionali estraterreni," *Divus Thomas* (Piacenza) 61 (1958): 3-24).

^{15. &}quot;Space Theology," p. 81.

^{16.}Zubek, p. 395.

^{17.}Carr, p. 255; Conway, p. 10.

^{18.}McHugh, "Life," p. 29.

^{19.} Perego, "Rational," p. 177.

Others used the glory of God as an explanation for why extraterrestrials would *not* exist. One priest maintained that one would not "be able to understand the logic of the divine plan of man's salvation" if extraterrestrials were able to glorify God. From this, he argued they simply would not exist: "It is fantastic to suppose that God would place such men on other planets. Remember that the world was created by God for God's glory. What glory would God derive from men deprived of supernatural gifts?"²⁰

While the Catholic journalist Joseph A. Breig did not use the term *glory*, he did ask whether there are extraterrestrials capable of adoring God consciously. He contended that there is no need to assume the existence of extraterrestrials, because humanity provides a sufficient locus for the meeting of spirit and the entire created order.²¹

Lonely Planet

Another of Breig's arguments for the uniqueness of humans concerned their status as images of God. It was inconceivable to him that God would populate the universe with images of God other than those descended from Adam; Breig argued that humanity was an image of God by virtue of both spiritual and physical aspects.²² One priest believed that extraterrestrials would resemble humans insofar as they both have spiritual and material natures, "but in their bodily formation they could be as different from us as an elephant is from a gnat."²³ When McHugh explained how extraterrestrials could be images of God, he did not even mention their physical nature. Rather, he said that humans are made in God's image "radically through the possession of mind and will, accidentally through the doing of virtuous deeds."24 Unlike Breig, McHugh thought this image could be replicated many times. Another priest noted that even this spiritual component of extraterrestrials could differ from that of humans.²⁵

Breig's denial of the possibility of extraterrestrials relied upon more than his opposition to multiple incarnations. He felt there was no room in the universe for nonhuman forms of intelligence. In his words:

To me, there is a divine rightness to this concept of the singular unity of mankind, of the cosmos, and of the Creator, which cannot be present in any theory that there may be one or more races of thinking beings composed of matter and spirit.

McHugh saw this desire for uniqueness as a remnant of the belief that the Earth is at the center of the universe. It is a prejudice, he said, to which people still cling on the basis of a feeling of intellectual superiority. McHugh preferred to think that the "family of Adam, or *Homo terrenus*, as I shall dub him, is not a lonely wayfarer in a wilderness of glowing cinders and icy cosmic dust." Zoologist and psychologist Vincent G. Dethier, writing in *Catholic World*, was more explicit about the implications of being unique:

To be unique is to be lonely. It is a chilling thought that in all the universe man and his biosphere are the only living things. As long as all men believed in heaven man was not alone in the universe. Could it possibly be in this age of scientific materialism that man's desperate search for extraterrestrial life stems from a fear of being alone? That he is searching for a substitute for heaven?²⁶

For one priest, the central point was not simply that humans want to make contact with other equals. Instead, he said people have a need to worship superior beings, and some try to meet this need through postulating extraterrestrials that are wiser and more powerful than humans. Accordingly, they can hope for either a delivery from their Earthly suffering or "complete annihilation through some tremendous eschatological conflict."²⁷ Others raised the possibility of superior extraterrestrials who might adore God better than humans do.²⁸

While some individuals had either extreme positive or extreme negative expectations of making contact with extraterrestrials,²⁹ others were more ambivalent about encountering them. One writer

28.Carr, p. 256; "Space Theology," p. 81.

29.For a general discussion of extreme views of contact with extraterrestrial intelligence, see John Billingham, Roger Heyns, David Milne, Stephen Doyle, Michael Klein, John Heilbron, Michael Ashkenazi, Michael Michaud, Julie Lutz, and Seth Shostak, Social Implications of the Detection of an Extraterrestrial Civilization (Mountain View, CA: SETI Press, 1999), pp. 48-52.

^{20. &}quot;Space Theology," p. 81.

^{21.}Joseph A. Breig, "Man Stands Alone," *America: A Catholic Review of the Week* 104 (26 November 1960) : 294.

^{22.}Breig, p. 294.

^{23.}Raible, "Rational," pp. 532-533.

^{24.}**L. C. McHugh**, "Others out Yonder," *America: A Catholic Review of the Week* 104 (26 November 1960): 296-297.

^{25.}Zubek, p. 394.

^{26.}**Breig**, p. 295; **McHugh**, "Others," p. 295; **Vincent G. Dethier**, "Life on Other Planets," *Catholic World* 198 (January 1964): 250.

^{27.}**J. Edgar Bruns**, "Cosmolatry," *Catholic World* 191 (August 1960): 286.

was uncomfortable with the prospect of meeting beings who are biologically very different from humans. But simultaneously, he gained a sense of hope that even if humans destroy the Earth in a nuclear disaster, humankind "might continue in the life of other planets."³⁰ Similarly, the author of an article in *America* regarded the idea of a plurality of kinds of intelligent beings as both "engaging" and "intimidating."³¹

Some writers gave theological reasons for thinking humans are or are not unique, but many turned toward science to determine whether extraterrestrials actually exist. Often, the question of whether habitable planets exist around other stars was taken as a starting point, with authors emphasizing that the prevailing opinion of astronomers was that such planets probably do exist.³² The legitimacy of such claims was not universally accepted at the time. An anonymous writer in the Catholic magazine Sign said that such conclusions are unscientific, noting that a "scientist who makes such a claim is betraying the standards of exactness claimed for his profession."33 One Jesuit priest, however, thought a focus on planets habitable by life as we can conceive of it was an unjustified restriction of God's power. He reasoned that if God is capable of endowing human bodies with properties that will enable people to exist after their Earthly lives, then certainly God could create beings suitable for any planet.³⁴

Risen, Fallen, Redeemed?

In addition to biological differences between humans and extraterrestrials, many said the two groups might have fundamentally different relationships with God. Some references were relatively unelaborated. One priest simply noted the possibility of extraterrestrials being either "in the state of original grace" or "fallen into sin."³⁵ Another writer wondered "whether they would be better or worse than ourselves."³⁶ While there was certainly no consensus about the actual spiritual status of extraterrestrials, there was often a common, implicit framework within which to discuss these possibilities. Most schemes postulated beings that originally existed in either a natural state or a supernatural state. Of the latter, it was thought some might remain in God's grace and some might fall from it. Further, the possibility of redemption was discussed for those who fell. Two priests noted that different races of extraterrestrials could well fit two different categories.³⁷

Gifted Children

According to this categorization, extraterrestrial races that were never endowed with supernatural gifts would be in a state of pure nature. For three of the priests who raised this possibility, beings in this state were compared to human infants who die before baptism. Like such infants, these extraterrestrials would naturally know God in eternity.³⁸ This destiny would apply to extraterrestrials in a natural state, according to one of these priests, "if they remained faithful to God."39 While Zubek acknowledged the possibility of eternal bliss for these extraterrestrials, he did not think it was inevitable. In his view, "God would eternally reward such creatures with natural happiness or punish them forever, according to whether they did or did not serve Him in their lives."40

Within this basic framework of the different states in which extraterrestrials could exist, Raible and Zubek added the possibility of extraterrestrials being endowed with gifts that others did not mention. The quality of these preternatural gifts is most easily seen in Raible's writing. He contended that beings with an integral nature would be endowed with one or more gifts possessed by angels. Raible described some of the characteristics they might have:

For example, they might enjoy infused knowledge (they would literally be born with extensive knowledge and would find the acquisition of further knowledge easy and enjoyable); they might be blessed with harmony and concord in the working of their bodily and spiritual faculties; they might be spared the ultimate dissolution of death, passing to their reward at the end

^{30.}Harford, pp. 19, 21.

^{31.&}quot;Messages," p. 250.

^{32.}**Bruns**, p. 284; **Dethier**, p. 249; **Harford**, pp. 17-18; **McHugh**, "Life," p. 28; "Other Worlds, Other Beings?" *Newsweek* 60 (8 October 1962): 113; **Raible**, "Rational," p. 532.

^{33.&}quot;No Room for Christian Faith," *Sign: A National Catholic Monthly Magazine* 36 (November 1956): 14.

^{34.}**Perego,** "Rational," p. 177.

^{35. &}quot;Space Theology," p. 81.

^{36.&}quot;Messages," p. 770.

^{37.}Perego, "Rational," p. 178; Zubek, p. 396.

^{38. &}quot;Missionaries to Space," *Newsweek* 55 (15 February 1960): 90; **Raible**, "Rational," p. 533; "The Theology of Saucers," *Time* (18 August 1952): 62.

^{39.} Raible, "Rational," p. 533.

^{40.}Zubek, p. 396.

of their time of trial as peacefully as the sun sinks below the horizon at the end of the day. They might possess all these preternatural gifts or only some of them in any of various combinations that are limited only by the omnipotence and providence of God.⁴¹

The difference between pure nature and integral nature is less clear in Zubek's distinction. Though he specifically noted that beings in a natural state would have no preternatural gifts, he did say that they might receive "a sort of natural help by God."⁴² This help, he wrote, might be offered to extraterrestrials in a state of pure nature whose natural appetites conflict with God's will.

The third type of gift that many thought God could bestow upon extraterrestrials is of a supernatural form. For Raible, beings in this state of supernature "would be elevated, either at the moment of creation or shortly thereafter, to a condition surpassing absolutely all the natural needs and power of any existing or possible creature." The priests who maintained that preternatural gifts were a possibility also said that both preternatural and supernatural gifts could be given to the same beings, placing them in a "state of innocence."⁴³

Paradise Lost?

Extraterrestrials in either a state of innocence or a state of supernature, some priests contended, would have something in common with Adam and Eve: the freedom either to pass or to fail a test, along with all of the consequences of that choice. Supernaturally endowed extraterrestrials who passed their test, said Father Domenico Grasso, would be immortals "far ahead of us in science and related fields."⁴⁴

Grasso also considered another possibility: a race that had fallen and not been redeemed. For these beings, Grasso stressed, "crime, war, and hate would rule.... Compared to the vast nonterrestrial hell, our world would appear to be a privileged globe...."⁴⁵ Another priest compared them to fallen angels: "creatures with keen intellects, but with wills strongly inclined to evil."⁴⁶ Also comparing them to fallen angels and calling them "a sort of devil incarnate," Zubek raised the possibility of their passing on their state to offspring who also might be denied redemption. McHugh regarded unredeemed extraterrestrials as theologically defensible on the grounds that it would demonstrate God's justice and holiness. Though Raible acknowledged the possibility of fallen but unredeemed extraterrestrials, he thought it unlikely given the infinite mercy God has shown to humanity.⁴⁷

The last possibility that was considered—a race fallen but redeemed-raised questions about the significance of Jesus Christ for extraterrestrials. Grasso said that only humans, descended from Adam, could share in redemption through Jesus Christ. Other beings, not tainted by Adam's original sin, would be outside the church.48 Though Zubek concurred that extraterrestrials would not share in the sin of the human race, nevertheless he held that God could have saved such beings through Jesus Christ if God so wished.⁴⁹ A professor of dogma at the University of Munich said that Christ is the head of the universe, and thus would also be the head of extraterrestrials. This writer did note, however, that this does not automatically mean that Christ is also their redeemer.⁵⁰ When asked in an interview about the relationship between extraterrestrials and "Jesus Christ, the Incarnate Word," McHugh replied that extraterrestrials would be "under the universal dominion of Christ," but McHugh said he would leave further conjectures to theologians specializing in the incarnation. So too did Father J. Edgar Bruns affirm the universal dominion of Jesus Christ without taking a position about Christ's status as redeemer.⁵

Grasso denied the redemptive power of the Earthly incarnation of Christ for extraterrestrials, but he kept open the possibility of their salvation through other means.⁵² Some believed that this could occur through other incarnations of any one of the persons of the Trinity.⁵³ Breig found this notion totally unacceptable. Most inconceivable to him, it

50. "Space Theology," p. 81.

51.McHugh, "Life," p. 29; Bruns, p. 297.

- 52."Missionaries," p. 90.
- 53.**McHugh**, "Others," p. 296; **Raible**, "Rational," pp. 534; **Zubek**, p. 398.

^{41.}Raible, "Rational," p. 533.

^{42.}Zubek, pp. 396-397.

^{43.}Raible, "Rational," p. 534; Zubek, p. 397.

^{44.&}quot;Missionaries," p. 90.

^{45.&}quot;Missionaries," p. 90.

^{46.}Bruns, p. 286.

^{47.}**Zubek**, p. 398; **McHugh**, "Others," p. 296; **Raible**, "Rational," p. 534.

^{48. &}quot;Missionaries," p. 90.

^{49.}**Zubek**, p. 398.

seems, was the idea of more than one Mother of God, an idea that was no problem for McHugh.⁵⁴ Raible and Zubek thought God could redeem fallen races simply by forgiving their sins with or without requiring them to ask for forgiveness. They also said God could require a partial satisfaction for their sins by one or more members of the race. Only if God required an infinite satisfaction, they thought, would an incarnation be necessary. Raible added that if God chose to re-elevate a race, God could decide to return any or all of the gifts that were originally given.⁵⁵

A number of people commented on the theological implications of extraterrestrials between 1955 and 1965, but that number must not be overestimated. McHugh contended that "hard-headed Catholic theologians" had not considered the topic. He claimed that without more evidence that extraterrestrials actually exist, most theologians studying the incarnation "would regard such speculation as idle."56 A spokesman for the Vatican called the issue "slightly premature" in 1955.57 While acknowledging that thinking about extraterrestrial beings is "in its way fascinating," another writer concluded that "it's all too nebulous and far out to worry much about."58 Although the Jesuit priest and paleontologist Teilhard de Chardin said he did not want to discourage such hypotheses, he thought the probability of extraterrestrials existing was so unlikely that it did not seem worth becoming engrossed in.⁵⁹ Another writer saw this lack of attention as a reluctance of theologians to raise difficult questions.⁶⁰

Toward the End of the Millennium

In the years following the decade that is the primary focus of this paper, there were additional voices added to theological discussions about extraterrestrial beings. For example, in 1969 Father Clifford J. Stevens provided a view of theology quite different from those writing just a few years earlier. He believed that extraterrestrials should be judged on the basis of their *own* theologies, and not by terres-

60.Kleinz, p. 28.

trial standards. In fact, he believed that theology as humans know it could expand markedly if contact were established with extraterrestrial theologies. While he looked forward to an expansion of theology as a result of contacting extraterrestrials, he also acknowledged that this could be dangerous. "In human history," Stevens wrote, "the discovery of a new race has always meant the exploitation of one by the other, or at least an immediate state of hostility between the two groups. No one can yet gauge the effects of a cosmic hostility." But after presenting this scenario, he hoped that conflict with a race of nonhumans might bring humans together.⁶¹

For most other Roman Catholic priests, however, the central concerns voiced at the start of the Space Age were reiterated. For example, Father Theodore M. Hesburgh, President of the University of Notre Dame, provided the foreword to an early NASA study on SETI. In it, he noted the compatibility of belief in God and the scientific quest for intelligent life beyond Earth, concluding that "Finding others than ourselves would mean knowing Him better."62 Similarly, Father Thomas F. O'Meara, a theologian at the same university, summarized the range of possibilities that could characterize extraterrestrials in a manner reminiscent of the categories we saw earlier: "Distant creatures might be without grace and revelation, and they might be without evil, suffering, and sin."63 Moreover, he cautioned against assuming that human experience is sufficient to allow us to imagine all possible relationships between extraterrestrial beings and God: "The ways in which supernatural life touches sensate intellect and will, the modes of contact in revelation may be quite diverse, and it is a mistake to think that our understanding...exhausts the modes by which divine power shares something of its infinite life."64

As we move beyond those who *published* on theological implications of extraterrestrials, and instead examine the views of priests who were contacted for their comments, we again see a similar range of responses to those already documented. Victoria

64.O'Meara, pp. 23-24.

^{54.}Breig, p. 294; McHugh, "Others," p. 296.

^{55.}Raible, "Rational," p. 534; Zubek, p. 398.

^{56.}McHugh, "Life," p. 29.

^{57. &}quot;Space Theology," p. 81.

^{58.}Carr, p. 255.

^{59.}**Pierre Teilhard de Chardin**, *The Phenomenon of Man*, trans. Bernard Wall (New York: Harper and Row, Publishers, Inc., 1959), p. 286.

^{61.}**Clifford J. Stevens**, *Astrotheology: For the Cosmic Adventure* (Techny, IL: Divine Word Publications, 1969), pp. 32-34.

^{62.} Philip Morrison, John Billingham, and John Wolfe, *The Search for Extraterrestrial Intelligence: SETI*, NASA SP-419 (Washington, DC: U.S. Government Printing Office, 1977), p. vii.

^{63.}**Thomas F. O'Meara**, "Christian Theology and Extraterrestrial Intelligent Life," *Theological Studies* 60 (1999): 23.

Alexander conducted one such study, in which she sent a questionnaire to a thousand Roman Catholic priests, Protestant pastors, and Jewish rabbis throughout the United States.⁶⁵ Although the title of her report suggests that she queried clergy about their attitudes about UFOs, in fact the questions were asked in such a way that they also shed light on attitudes about extraterrestrial life that does not travel to Earth, and thus is relevant to SETI.

In a manner reminiscent of Hesburgh's comment about knowing God better through contact with extraterrestrials, one priest in Alexander's study maintained that, "The thought of more than one civilization expands the greatness of the God I believe in." Other priests emphasized the range of possible moral states in which extraterrestrials could exist. As one priest from Pennsylvania put it, "In the event they sinned, they would need redeeming.... If they did not sin, there would be no need for redemption and they would not suffer the effect of sin-death, a darkening of the intellect, pain, disease, etc." This assessment was partially reiterated by a priest serving a small congregation in Wisconsin, who expressed the view that it is "possible that life on another planet did not fall as on earth and had no need of redemption."

Several priests considered the implications that would follow from other civilizations not being in need of redemption. A priest from Illinois suggested, "Perhaps there is a race of intelligent beings out there who have never fallen from grace and who have made very great technological progress over many thousands of years." Similarly, another priest concluded, "if you placed 'Intelligent life on other planets' and these beings 'obeyed' Him then such beings would be inexplicably more intelligent than us and far more scientifically advanced." One priest suggested that extraterrestrials not in need of redemption would be so different from sinful humans that there might be problems in understanding one another: "any form of communication with, association with, or even minimal contact with [them] would be impossible in this material existence; they being so vastly different-their very life would be unintelligible to us and us to them."

Although a number of priests participated in Alexander's study, some questioned its usefulness or appropriateness. A priest from Michigan responded to the request to participate in the study by suggesting that other priorities are more important: "Try raising funds to feed hungry and clothe naked!" Similarly, a priest from Florida offered the view that the "survey is a waste of money that could be given to the poor and homeless here on this planet." A colleague from the same state replied simply by saying, "I think the whole thing is absolutely ridiculous." Apparently, some still agreed with the Vatican representative who said 40 years earlier that these issues are "slightly premature."⁶⁶

Prophets of the Future

At a seminar on the cultural implications of contact with extraterrestrial intelligence, sponsored by the Foundation For the Future in 1999, the value of both theological and historical perspectives was reflected in the choice of the participants, which included both a Buddhist priest and an historian of science. The purpose of the present paper has been to examine religious attitudes about extraterrestrials in an historical context, in the hope of preparing for some future date when actual contact might occur.

But exactly *how* can a theological discussion from several decades ago help us anticipate the future? One possibility is that such speculations may aid us in moving beyond the narrow constraints of our human experience of the world. Whether we are attempting to envision the range of forms that extraterrestrial intelligence may take, or whether we are trying to anticipate the impact of advances in genetic engineering and artificial intelligence on Earth in the coming centuries and millennia, we are constrained by the limitations of our imagination. Theological speculations may provide one way of expanding beyond those preconceptions:

...we may gain insights from theology into the possible nature of extraterrestrials that we might not consider if we focused only on human nature as studied by science. For instance, an extraterrestrial might have characteristics that theologians attribute to angels, such as immortality or innate knowledge. Because we are mortal and we acquire knowledge through learning, we are likely to overlook such possibilities on other worlds. And yet, such "gifts" as extremely long lives and a greater reliance on implanted or intrinsic knowledge

^{65.}Victoria Alexander, The Alexander UFO Religious Crisis Survey: The Impact of UFOs and Their Occupants on Religion, 1995, <http://www.accessnv.com/nids/articles/alexander/survey_religion.html>.

^{66. &}quot;Space Theology," p. 81.

might well occur elsewhere, either naturally or through artificial adaptations (e.g., through genetic engineering or in the form of artificial intelligence). In short, one benefit of theological reflections on extraterrestrials is to challenge—and thus potentially expand—implicit scientific assumptions about the nature of extraterrestrial intelligence. In the case of Catholic theology, such concepts as the preternatural and the supernatural whether taken literally or metaphorically—can help us see beyond nature as depicted by science.⁶⁷

If the scope of historical analyses is extended to centuries, rather than restricted to merely a few years, then we may begin to see recurrent patterns in people's views. For example, commonalities in ways of imagining the possible moral status of extraterrestrials, as seen in writings over the course of several hundred years (rather than just a decade), may be less influenced by the vicissitudes of the specific cultural milieus in which these views are discussed. And indeed, arguments for and against the existence of extraterrestrials-and about their nature if they do exist—have been raised by religious individuals in the past, sometimes in a framework consistent with that found in the current study. Nevertheless, within these broader frameworks covering large expanses of time, we should also continue to conduct more circumscribed analyses, carefully documenting the divergences from more typical views. Such is the attempt of the current study, which is focused on a single decade during a critical time at the beginning of the Space Age, and limited to a single denomination of one major world religion.

Given the global impact that detection of a signal from a distant civilization would have on Earth, it is important that future studies be expanded to examine the responses we might expect from a range of cultures and religions. In one recent empirical study of university students' attitudes about the implications of receiving an information-rich radio signal from an extraterrestrial intelligence, we concluded that "those Americans who viewed message receipt as spiritually significant were both more open to life existing beyond earth, and less apprehensive about making contact."⁶⁸ No such pattern was found for a matched group of Chinese respondents. Additional studies are needed to identify the factors responsible for this difference. When attempting to prepare for the future, we are limited in how adequately we can generalize from comparable situations in the past or the present. Since there are no instances of a confirmed detection of a signal from a distant extraterrestrial civilization, people engaged in discussions about the theological status of extraterrestrials could easily see the question as still very hypothetical. However, there *have* been situations in which—for at least a short time—people *believed* that extraterrestrial intelligence had been detected by very reputable scientists. If Lord Byron was correct, and "the best of Prophets of the future is the Past,"⁶⁹ then more detailed studies of those "false alarms" could be very enlightening.

One particularly promising historical incident that may help us anticipate the future detection of a signal from extraterrestrial intelligence is the Moon Hoax of 1835.⁷⁰ In that year, the *New York Sun* printed a series of articles reporting the discovery of life (including intelligent life) on the Moon by the eminent astronomer Sir John Herschel.⁷¹ This provides a useful analogue for signal detection at interstellar distances, because in the early 19th century, the Moon was viewed as a very distant celestial body with which humans could have no physical contact. Several accounts have been written indicating that for a short time, there was widespread acceptance of the existence of extraterrestrial intelligence due to the Moon Hoax.

However, these accounts have focused on *media reports* of the Moon Hoax, rather than on *individual responses*. To remedy this limited view of the event, one might contact archivists and historical scholars having access to diaries and journals of individuals who made regular entries during the 1830s. Because the event can be clearly delimited to a few days, it would be relatively easy to determine whether each diarist made reference to the news of an inhabited Moon. Using standard methods for coding the content of such diary entries, one could then characterize the range of responses. For those diarists who are sufficiently well known by at least one historian (e.g., by their biographers), a personality profile can be

^{67.}**Douglas A. Vakoch,** "The Dialogic Model: Representing Human Diversity in Messages to Extraterrestrials," *Acta Astronautica* 42 (1998): 707.

^{69.}Diary entry dated January 28, 1821.

^{70.}**Douglas A. Vakoch**, "Predicting Reactions to the Detection of Life beyond Earth," Paper presented at the Societal Implications of Astrobiology Workshop, NASA-Ames Research Center, Moffett Field, CA, USA, November 1999.

^{71.}See "Celestial Discoveries," *New York Sun* (25 August 1835): 2 for the first installment.

obtained using standard psychological assessment questionnaires, with the historian completing the surveys as he/she believes the diarist would have responded. This psychohistorical approach would allow an examination of such questions as: Were more religious individuals more skeptical about the news report?

The degree of interest that theologians have in speculating about extraterrestrial intelligence may well vary with changes in the perceived likelihood of actually making contact. In the view of one Roman Catholic priest, theology must wait, with respect to extraterrestrial beings, for "actual discovery before attempting studies of any practical significance; but theology, like the other sciences, must be prepared for new horizons of thought—however unfamiliar they may be."⁷² In the late 1950s and early 1960s, the

72.Stevens, p. 34.

reality of knowing about extraterrestrial beings was remote enough to make in-depth analyses seem premature. But simultaneously, the possibility of some day contacting life beyond Earth was real enough for a few people to begin discussing some of the theological implications of such a discovery. As searches for extraterrestrial intelligence continue to expand, we might expect—and hope for—a comparable increase in attention to the theological questions that would come to the fore if some day one of these searches succeeds.

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