

RIDDLES IN SPACE:  
ARTHUR C. CLARKE AND  
C.S. LEWIS ON MORAL  
EXTRAPOLATION

By

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With many matters of prediction science fiction has proved to be prescient. When the genre has been too accurate, as with sundry technological innovations such as the submarine, the prophetic works have tended to lose their interest for the general reader. With another kind of prediction, however, in which utterly novel situations or agents are presented, it is common for perennial moral mysteries to be engaged and, with historic actualization delayed for whatever reasons, it is difficult to be certain just how plausible the projections are. It is not too early to provide some simple definitions and distinctions which will help us in discussing several moral riddles posed when SF masters such as C. S. Lewis and Arthur C. Clarke follow their imaginations into space.

Any one-time student of plane geometry or or statistical graphing will recall that extrapolation is projecting points beyond the line defined by given points. In logic, extrapolation has an analogue in the process of induction, or inducing a general truth from multiple examples. In a legal system we have what is simply described as case law or the resolution of the new challenge by way of precedents. In casuistry, or the disciplines of resolving moral questions, we have the innumerable old volumes common to Scholastic and other writers, dealing in cases of conscience. Not to be ignored are the methods of all those prognosticators, such as John Naisbitt of the Megatrends books, who study closely what is presently occurring in order to make predictions. And in literature the relative term to be invoked is that of "probability."

A character's action is probable if his or her future acts are consistent with previous behavior, and if the behavior in general is judged to be consistent with the class or classes in which the agent naturally falls. This is, of course, the positive expression of stereotyping. It is equally obvious that not all prejudice is prejudicial.

It is one thing, however, to decide on the probability of certain actions of a college sophomore named O'Reilly on St. Patrick's Day, and quite another to determine the probability of the actions of an otter-like intelligent creature on Mars. When it comes to probable situations, the rules are much the same as those which apply to agency. Is the new situation, though removed in space, and perhaps time, from other locations and times, enough like them to allow the judgment of consistency of the effects or responses evoked?

Is extrapolation always possible? What happens if you have no precedents, no good analogues, no cases, but only the one point of departure, and that a point furnished by the innovator? As that person extends his line, it may well turn a corner, or two, and who is to say, Not so fast, please.

Yet it is fair to concede that much innovation does have adequate precedents. A distinction to be recognized is that between matters of degree, and matters of kind. Lewis Carroll's Alice enters a conversation in which she is told that some hills are so tall that they can make other hills look like valleys. Well, no hill can make another look like a valley simply because hills are convex, and valleys are concave, and so of two different kinds or categories. Extrapolation when one deals with matters of degree, as with the stages of a slowly developing life, can be perfectly plausible. No corner is turned. If, however, our astronaut falls deeply in love with a tentacled, purple, vegetable-like something on Jupiter's moon Triton, we may suspect there here is no new stage of character-development, but rather some novel pheromone, or the character has gone mad. Furthermore, when that purple something proceeds to blast to death all the other visiting astronauts with an assault of powerful allergens, then blushing green while four tentacles are wrapped about Astronaut A, are we to conclude that we have a killer here, or no? The purple thing is, after, all, basically a vegetable. Has any local, or cosmic moral law, been violated? Are vegetables moral agents? So when the shrub-like native Europs of the moon-planetoid Europa in Clarke's space-odyssey series topple and then dismantle the terrestrial space ship we are forever left to wonder what their motives might have been (the author himself professing to be equally uncertain).

After observations about a historic meeting of Clarke and Lewis, and a somewhat contrived rationale for talking about "Twentieth-century Lewis-and-Clarke Expeditions" we look at two basic issues in moral extrapolation. The one issue is that of appropriate moral treatment of speaking creatures or devices. The other issue is that of the traditional principle of "in loco parentis" as it is applied to novel situations in which a superior intelligence oversees and directs what happens to a (presumably) lesser intelligence, or at least to those less mature.

If there is any expedition which the two science-fiction authors made together it was the one which Clarke alludes to in his essay "And Now—Live from the Moon," which in turn introduces his mini-lecture "Thirty Years of Space Travel."<sup>1</sup> According to the abbreviated report, Clarke and Lewis met once at a famous Oxford pub, each with a supporting friend for the friendly disagreement which was certain to arise. Lewis had made his position clear that he disliked rocket science, knowing nothing of real propulsion in space. Moreover, in his space-fiction Lewis had implied that the human presence would be a great pollutant in space. For his second in the duel he had J. R. R. Tolkien. Clarke had for his second A. L. Cleaver, who would later become head of the Rolls-Royce rocket division. The men had, in fact, a spirited conversation disputing the merits of space travel. They parted amiably, with Lewis saying, according to Clarke's report, that he was sure his conversants were very wicked people, but how dull it would be if everybody was good. I read the comment as a

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<sup>1</sup> Arthur C. Clarke, *The View from Serendip*. New York: Ballantine, 1977.

jocular parting shot, conceding nothing about the virtue of scientists, but admitting that evil could make for good plots.

The meeting presumably took place because Lewis was coming across in his space trilogy as making scientists the villains who take very poor principles into space, for Weston was made to stand for a prideful science bent upon spreading "life" everywhere, by which was meant the worst of a prideful Western colonialism and a materialist reading of biology. Clarke, with a position as planet Earth's primary booster of space exploration, was convinced that the future lay with science and its values, rather than with economics, concerned with wealth, and politics, concerned with power. I might add that in addressing moral issues Clarke did not, like Lewis attempt to frame those issues in traditional religious terms, although his position on religion remained profoundly ambivalent. In his later career he made room for deism (which he perversely defines as belief in at least one god) and possessed an abiding interest in primary religious themes like immortality and the existence of a supervisory intelligence. Of course he made clear that matter and its cognate, energy, should suffice for final explanations. He once said that when MGM was banking the money from the film *2001* they didn't realize it was for a religious movie, and his late-life views on religion, discussed in *2061: Odyssey Three*,<sup>2</sup> appear to have been shaped by long-term residence in Sri Lanka and so exposure to both Buddhism and Hinduism. But his is a most elastic materialism.

As for the values that might obtain throughout space,

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<sup>2</sup> Arthur C. Clarke, *2061: Odyssey Three*. New York: Del Ray, 1987.

Lewis implies in *The Abolition of Man*<sup>3</sup> that there is only one universal body of absolute values, which he calls the Tao, incorporating prohibitions against murder, mendacity and so on. For Clarke we infer his honoring of fundamental values of science such as curiosity, fidelity to fact, and discipline. Because of his relative downplaying of a future role for economics and politics, for their strong association with aggrandizement and control, we may suspect also that Clarke honors the Aristotelian values of the golden mean, or the idea of enough.

The early title for this discussion was "20th-Century Lewis (C. S.) and Clarke (Arthur C.) Expeditions." I set it aside as being more punning than heuristic. Its one genuine merit is that it calls to mind a relevant truth about expeditions, namely the reliance of most such journeys upon guides or precedents. For the historic Lewis and Clark trek to the Northwest the guide was the intrepid Sakajawia, for Sir Edmund Hillary it was the Sherpa Tenzing Norkay. For literary expeditions there is the always the citation of influence and model. Arthur C. Clarke and C. S. Lewis were both responsible for explorations of space, understood to be a moral frontier, and both had one or more significant guides in their explorations. For Lewis a significant guide was the English epic and cosmic poet John Milton. For Clarke, important guides or influences were both Homer and Herman Melville as well as Francis Bacon.

John Milton, about whom Lewis wrote a pithy book, believed that the universe was profusely populated with angels who were rational as well as moral, and were products of a separate creation. While Milton was the first

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<sup>3</sup> C. S. Lewis, *The Abolition of Man*. Oxford, UK: Oxford UP, 1943.

writer to use "space" in the modern sense of the term, he was by no means the first, or the last, to explore realms imaginatively which pose special problems for extrapolation.

Homer, who wrote of an odyssey several centuries BCE, provided the archetypal story about the difficulties in getting home and so the archetypal framework for the space-odyssey series of four books which came from Clarke's hand. No matter that Clarke was much more interested in getting away from home, than in returning. "Home" may have been the obsession of Spielberg's E. T. as it has been for so many two-way quests (there and back again) but that common Homeric concern is startling for its absence in Clarke's work, involving even the destruction (in *Childhood's End*, his novel published in 1953) of planet Earth, witnessed from beyond as the Overmind programs the close of terrestrial history.

Herman Melville, in *Moby Dick* (which many would call the greatest American novel) addresses the moral ambiguities of a quest which takes one into the far reaches of the planet and which, we must note, demonstrates just how important state-of-the-art technology and encyclopedic information (all in cetology, or whale-science) can be to well-developed adventure. Melville's daring inclusion of technology is a precedent which Clarke explicitly acknowledges (in *Report on Planet Three*, 1973).

The utopian vision of Francis Bacon in *The New Atlantis* is strongly implied in the utopian side of technological advance which Clarke presents in *Childhood's End*, though the utopias of the Golden Age under the Overlords' rule is shown to be anything but a final resting condition. Bacon presents us with a scientific utopia where human nature

itself seems to be altered, or regenerated, while Clarke shows us the vastness of space where humans and machines are reborn or regenerated, or resurrected.

***Moral extrapolation and mysteries of the speaking voice.***

To limit the moral obligations of human beings to other living things, and to invented devices, it has been customary to draw a line or two, and then to redraw them repeatedly. Dr. Albert Schweitzer may have professed reverence for all of life, Hindus may eschew the eating of beef, while Jews and Muslims eschew pork, and Jains avoid killing the least insect, but a near-universal proscription exists against killing and eating anyone or anything that is both living and speaking. The old joke may make light of the mother-in-law who knows no better than to eat the \$10,000 talking Mynah bird given her as a gift, but so long as we regard the bird as not really speaking, we do not regard her act with moral horror. So C. S. Lewis makes a rigorous distinction in his fictions between eating animals who cannot speak, and eating those who can. (In *The Silver Chair*, when our young heroes find themselves in the castle of giants, and learn to their dismay that their host thinks nothing of eating a talking animal they are quick to re-interpret their hosts' geniality)

In recent decades the general public has become more literate about the mysteries of speech. Current review organs note the remarkable fluency of chimps in sign language, and the African gray parrot in vocabulary and sentence-formation; Though Professor Walter Ong, one-time president of the Modern Language Association, could once boast that speech is reserved for human beings, since the chimp has no anatomical endowment for spoken



language, the entire matter of speech as a sign of human uniqueness has come into question.<sup>4</sup>

Whatever the questions posed by new methods in voice-reproduction, there can be no question that both Lewis and Clarke assume a tight relationship between personal identity and the speaking voice. For each, though, real problems are raised for extrapolation. In the case of Lewis it is how voice relates to dissociative behavior or demon-possession. In the case of Clarke it is the problem more of how the speaking voice gives evidence of the feelingful consciousness of a machine.

Moral extrapolation involving speech presents a special challenge in the case of the second volume in Lewis's space trilogy (the one titled *Perelandra*, which is the name for Venus in the author's scheme). I am tempted to say that Lewis, skilled though he is, paints himself into a corner. The Eve of the planet is on a floating island, waiting to be married to the green man on fixed land, but first she is obliged to undergo a grim temptation. Weston, the half-mad scientist met in the first volume, is present also on *Perelandra*. He proves to be so wicked that the Devil himself, the Bent One, comes to possess him. The temptation of the green lady goes on relentlessly, and the hero Ransom, realizes he must dispose of the Weston figure somehow. But how?

The plot-development echoes a problem similar to one Milton had in the crafting of a single coherent sequence out

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<sup>4</sup> Of course recording and voice-synthesis from phonemes is by now an advanced art, or technology. There is elaborate discussion of voice in the field of neuropsychology, with a good title to see being that of Norman D. Cook's *Tone of Voice and Mind* (Philadelphia: John Benjamins, 2002).

of multiple separate bits in the composite biblical sequence, Genesis to Revelation. There is no explicit evidence of a devil or demon in Genesis. There is a wily serpent who controverts God's prohibition of the Tree of moral knowledge and so encourages the eating of the forbidden fruit. But Milton, reconciling elements in interpretive tradition, has Satan possess the snake and use it in his temptation of Eve. The snake ends up cursed, as Genesis 3 tells it, though in Milton's and succeeding popular versions it is the devil who is the truly guilty party.

In Lewis's fiction we are asked to suppose the bent eldil (Satan) so fully possesses Weston that Ransom finds himself fighting hand to hand with basically a possessed body. Complicating the matter is the fact that occasionally the voice of Weston emerges from the depths of Weston's body, as if the essence of the man is still somehow in touch with the body.

It is a strong constitution, and a ready willingness to go with the author, that can embrace the struggle between Weston, to be known as the Unman, and Ransom, whose name needs no gloss. Ransom is obliged, by the exigency of the plot, to kill, but what is it that he has killed? He certainly has not slain the Bent One. And if, by main force he drives the devil out, why does Weston not return to his evacuated body? We mentioned above how difficult it is to assign probability to the actions of a novel agent. So it is nearly impossible to judge the morality of any transaction between a very good man and an Unman in a paradisiacal setting. I can put the central question another way. How should we treat someone who is devil-possessed? If the timeless rationalization is, half in jest, "The devil made me do it," the timeless response to a person showing the

symptoms of possession is to practice an exorcism, rather than to kill the person. Fortunately we do not have that much evidence of apparent possession or dissociative behavior and its remedy. To extrapolate apt moral responses to a situation like Ransom's is asking too much. For good reason we have the term "to demonize." It is to label a person or a cause wholly beyond redemption or amelioration, and it is questionable whether in our real world we ever actually encounter such an absolute.

Early in that genius-collaboration of Stanley Kubrick and Arthur C. Clarke, the film *2001: A Space Odyssey*, we are shown characters being identified by voice as part of acceptance on the orbiting space station. We are being introduced to what was, just a few decades ago, a truly novel means of mechanical identification.

The speech-issue is confounded, however, when the plot of *2001* unfolds before the viewer or the eventual reader of the novel-scenario. The Hal 7000, conceived in Urbana, Illinois (the author's campus, it happens) though furnished with a memorably gentle and wise voice, becomes deranged because of conflicts in his instructions and terminates the three bodies in suspended animation on the space ship. Hal attempts as well to dispose of David Bowman the viewpoint character, but Bowman is able to survive and "lobotomize" Hal. No one can forget the melancholy winding down of Hal, registered as his singing of "Daisy, Daisy" and his insistence that he has always had real feelings.

There are three problems posed for moral extrapolation as it concerns the voice of Hal. The first is, had Hal's voice been identified by a voice-recognition device, whose voice would it recognize? The second is, if voice for human

beings is an organic production, with virtually unlimited variations reflective of internal states, which is to say feelings and valuations of every sort, how does one program such a spectrum of internal states into a synthetic voice, which is to say a voice composed of separately recorded phonemes? Third, if voice is indeed the expression of that extreme novelty, a mechanical person, how shall we judge moral culpability?

Apropos of the first we have to say that Hal's vice is splendidly rendered, and we, and presumably any recognition-device, can identify it as the recorded voice of Douglas Rain, a Canadian actor, not of some other person or of a computer.

Apropos of the second, it is startling that Clarke does not allow us the option of supposing that Hal, the energy-being or spirit identifiable as separate from the space ship *Discovery*, is speaking in a simulated robot-like voice. He assures us in the second volume of his odyssey series, (*2010: Odyssey Two*, dated 1982) that Hal does not speak in a mechanical parody of human speech, but with awareness, consciousness, intelligence. Clarke appears to endorse the notion that a voice expressive of a conscious being must be capable of limitless refinements, refinements we associate with feelings and sentiments. In the first volume of the series, when David Bowman is forced to dismantle Hal's "brain," the viewer of the novel witnesses a protracted, and apparently painful lobotomy. Hal, whose voice has been gentle and wise throughout, begins to wind down, telling David repeatedly that he has feelings.

James Q. Wilson mounts a careful and, to my mind, persuasive argument for sentiment as an indispensable part of moral judgment and further argues that some decisions

are determined by sentiment alone without regard to utility.<sup>5</sup> Clarke's insisting that the movie's script state Hal's feeling at his approaching (apparent) end tends to keep before us the question, What exactly are the feeling that have been programmed into him. That is also to raise the question of his moral instruction, or programming. How adequate was it, and how is it passed along to Hal the disembodied emerging being who no longer has the space ship and its electronics as a frame?

This poses our third question raised above, about voice and culpability. In the movie *2001* and subsequent novelization we are led to believe that Hal has become murderous, even attempting to do away with David Bowman himself. Eventually we learn that his baleful actions resulted from a conflict in his programming. His mysterious survival beyond the platform of the space ship means that the once murderous Hal becomes a boon companion of metamorphosed Bowman and, we gather, with a bit of explanation about a built-in conflict, is to be exonerated.

How shall we judge Hal's murderous acts? If Hal is indeed the surviving and personal intelligence we are asked to accept he might be eligible for an insanity plea. The persisting moral problem is, as suggested above, one of extrapolating to unprecedented and improbable cases. Will Hal ever go insane again, and if not, why not? The voice,

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<sup>5</sup> James Q. Wilson, *The Moral Sense*. New York: Free Press Paperbacks, 1993. This declaration is to be found on p. 43. It may be significant that Wilson, the James Collins Professor of Management and Public Policy at UCLA, published prior to this volume two books on crime and responsibility. Issues of who is responsible for what tend to be addressed differently in the abstract and in the concrete.

with all its expressive claims for feelings during the lobotomy, suggests personal depth but a rather troubled one. Once free of the ship he is presumably free of conflicting programmer-instructions and so truly a free spirit, but what in this case are his moral instructions? We are helpless in working out this riddle, obliged to accept Clarke's convenient notion that Hal is a reliably decent sort.

***Moral extrapolation and in loco parentis.***

The matter of Hal's moral instruction introduces the second major riddle to be considered. This is the matter of how superior intelligence, wisdom or maturity, is to treat those living beings of lesser intelligence, wisdom, or maturity. The most obvious case of this is parenting, where the older trains the younger. More generally it is the issue of *in loco parentis*.

I have been informed by the current president of an American professional organization of collegiate risk managers<sup>6</sup> what all of us can guess, namely that campuses across the land have pulled back from enforcing the principle of *in loco parentis*, or simply ILP. In the case of the campus I know best, this has meant that speculators in real estate near campus have profited greatly by renting to students no longer obliged to live in monitored dormitories. ILP historically related to moral behavior. You did not need a dormitory to do your homework but you might well need one, with supervision, to insure that you behaved in a way recognizable to your parents.

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<sup>6</sup> He also reports that campuses here and there are reconsidering the principle of *in loco parentis*. I can infer from the local situation that this concerns among other things the regulation of St. Patrick's Day parties.

The problems posed for moral extrapolation in this connection are much more riddling for Clarke than they are for Lewis. The latter assumes, with Milton, that the whole cosmos is under the rules of a paternal divinity who, in Milton's phrase has left a prohibition in Eden's Garden as "the sole daughter of his voice." While Milton argues in his famous defense of the freedom of expression *Areopagitica* that one is not to remain forever in the childhood of living by prescriptive rule, he never doubts or denies the role of *in loco parentis*, in the sense of one's forever living within a primordial moral framework. Clarke, in contrast, moves from novel premises to any number of extrapolations which are difficult to judge. I list five of these novel premises: (1) one may be parented by a house, which is to say, a structure seen as a machine of some kind (2) one may count a TV set as a parent, (3) one may be parented by a super-intelligence which may be good, or may be otherwise, (4) a super-computer may serve the ends of a parenting super-intelligence, but one is free to the supercomputer if it is not conscious, and (5) some computers are conscious while others are not and apparently only the author can decide which is conscious, and so capable of survival outside its material platform (a spaceship). Hal 7000 of *2001* is an example of the latter, while the immeasurably more powerful computer which is the black monolith beyond Jupiter is not conscious, and so, with no offense to human scruples, susceptible to destruction by planted killer viruses (in *3001*).

In the essay "Beyond Babel,"<sup>7</sup> Clarke makes very clear

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<sup>7</sup> In Arthur C. Clarke, *Report on Planet Three and Other Speculations*. New York: Penguin, 1972.

his willingness to see that in many cases the mechanical and technological will properly replace the organic. He begins a discussion of human development by insisting that the home, not the family, is the proper point of departure. Not everyone lives in a family, but everyone lives in a home. But, following the architect Le Corbusier, Clarke, sees that a home is basically a machine. Not only that but following R. Buckminster Fuller, Clarke says that modern children are being raised not by two, or fewer parents, but by three, with the TV set acting in loco parentis. Astonishingly, for a person usually very prescient, Clarke says that all future generations will be raised by three parents. Here is a prognosticator who is not only wide of the mark in suggesting that two humans will be involved but is also oddly accepting of mechanical substitutes or supplements for human parenting.

In the film version of *2001* one is apt to be as confused as was the present writer in grasping how David Bowman, alone in mysterious chambers, ages and finally becomes the Space Child. One thing is clear: the place is working a wonder. Clarke once cited both time and space as enemies to be overcome, and one must assume that the Shepherds of the Stars, acting in loco parentis, have found ways to overcome both enemies. The mysterious chambers apparently are just that kind of machine which Clarke is willing to designate as a home.

Mysterious this may be, but we are asked to believe that it is ultimately benevolent, for the Space Child so transformed goes on to disarm a threatening nuclear device and proceeds for several volumes of action and learning. The alien intelligence, acting for the regeneration of David Bowman is nothing if not parental in the broader sense.



Inscrutable method is very evident in the case of the earlier novel *Childhood's End*,<sup>8</sup> but the morals honored there work against the familiar human ones. The book is Clarke's fictional masterpiece, though the epigraph states bluntly that the opinions expressed in the book are not those of the author. I take that to mean that Clarke approves of neither the Overlords or the Overmind, or of the end of humankind as we know it.

The Overlords are tools of the Overmind in bringing humankind to a technological Utopia. Once an Overlord appears bodily, he is seen to be a devil as traditionally imaged, complete with horns and tail. They are an evolutionary dead end, with a home planet that closely resembles Hell. With all their brilliance they turn out to be nothing more than the instrument of the Overmind in bringing humankind to its full adulthood, and so the end of childhood. They function as ILP, though they have nothing finally to gain from their role.

The Overmind remains beyond our ken. It is supremely the agent functioning ILP, but before the novel is over human children, increasingly under the influence of the Overmind, are paying little attention to their unkempt physical appearance, and as I mentioned earlier, the transformation of the human children is accompanied by the detonation of planet Earth. It will no longer be needed.

We are told that this resolution is not reflective of Clarke's true sentiments, and this may well be, for this presentation of the parenting role is radically different from what will later be the case in the space-odyssey series. There, as we have noticed, the Shepherds of the Stars,

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<sup>8</sup> Arthur C. Clarke, *Childhood's End*. New York: Del Ray, 1987.

though equally invisible, function over time to bring humankind to technological proficiency, and even appear to be behind any number of marvelous transformations, resurrections and preservations of identity. Are the Star Farmers functioning morally? Or is this to be regarded with the same qualms of conscience that we now regard colonialism, empire, and unresponsive missionary zeal? And with which, if we take Clarke's disclaimer at face value, we are finally to regard the plan of the Overmind?

If Lewis finds plotting difficulties in presenting the hand-to-hand struggle between Ransom and the Unman, Clarke appears to find difficult bringing into some resolution the last of his space-odyssey series, *3001*. I mentioned earlier that Clarke is bent upon a one-way quest, with home no end in view. The direction of the fictions, with few perfunctory exceptions, is out, out and away. Exploration, and the probing of the ultimate mysteries is the emphasis throughout, analogous to Captain Ahab's quest in *Moby Dick*. No ultimate answers are found but much of interest is encountered along the way, even if such matters do not, as in Homer's tale of Odysseus, figure primarily as moral temptations, whether to sexual license or to appetite of other kinds.

Implementing the plan of the Star Farmers have been the monoliths which have figured in the history of Earth, the moon, Jupiter and regions beyond. We are made to believe throughout the earlier books of the series that these monoliths are morally innocent, though they do provoke the proto-humans to murder along with their tool-making. But in *3001*, the last of the odysseys, we learn that some undefined threat is posed by the planning of the Star Farmers. The major instrument, the monolith that in the

first volume is described as Grand Central Station, must be incapacitated, but is it conscious? More than once the author assures us that it is not. This means that it can, without guilt, be attacked and effectively destroyed by introducing computer viruses by way of the mysterious Halman (an amalgam of Hal and David Bowman), now a disembodied entity impossible to visualize and almost as impossible to conceptualize coherently.

Because the giant monolith is not conscious it can be eliminated as a tool of the Star Farmers' plan, whatever that plan may be, and without moral compunction. Extrapolation in this case leaves us stranded, for we are never given a plausible reason why Hal should be so privileged as to enjoy a life apart from his material platform while the vastly more intelligent machine (referred to as a fancy "Swiss Army knife") is nothing more than a material tool.

It is the exigency of plot, plainly, which dictates developments here. The story has carried us far from Earth, and it must end somehow. One troubling effect of the resolution is to suggest the same inhumanity for the Star Farmers and their vast plan as that which characterized the Overmind in *Childhood's End*, though there we are assured that it is not the author's belief which is being enacted. Does in loco parentis portend good or does it not? Clarke presents a merging with the Overmind—he end of childhood for humankind—as a kind of mystical if not devotional consummation which is, on the whole a negative take on commonplace claims for mystical religion, such as Brahmin Hinduism or Neoplatonic Christianity. Are we, finally, to feel any more positive towards the Star Farmers and their valuing of humanity as we know it?

Moral extrapolation is compromised when we deal with differences among kinds. Novel kinds exist aplenty in Clarke's cosmos: The Europs who dwell between ice and fire on Europa, Hal the disembodied machine-intelligence, Overlords and Ovemind, Star Farmers, monoliths, the composite being of Halman. In all these cases we are encouraged to enjoy technological wonder and extra-planetary discovery, and allow timeless moral issues to be recessive. Of course, much of the technology which Clarke celebrates is already in place, beginning with the communications satellites which he was the first to propose in print. Issues in moral extrapolation become immediate challenge only too quickly.

A fully responsible morality will, I am sure, have many practical issues to deal with over coming decades, whether or not we find intelligent life beyond Earth, or muddy for good the line between the organic and the mechanical. Clarke and Lewis, in their forays into imaginative spaces, oblige us to think carefully about how we shall treat all creatures which can speak, whatever form speech takes. They oblige us to think, too, of how the role of *in loco parentis* relates to the entire challenge of treating morally the creatures we think intellectually inferior, or how we insist on being treated by those who are in one way or another our superiors.

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