

Premortal Spirits: Implications for Cloning, Abortion, Evolution, and Extinction

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Any organism (animal or plant) living on Earth today or any organism that lived on Earth in the geologic past is largely the product of its genes, which in turn are inherited from two parents—or, in the case of asexual reproduction, one parent. No other parents can produce this organism. Hence, if each organism is patterned precisely after a spiritual precursor, as we are commonly led to believe by some interpretations of Moses 3:5, only one set of parents can produce this organism in the temporal world. Carried further, this scenario means that all of our spouses and children are predestined from the spirit world and that we really have not exercised free agency in selecting a mate or in having children in this life. It also means that each plant and animal that has ever lived on Earth was predestined to come from one or two specific parents. This would also seem to require that events in Earth history are predestined, because specific events are necessary to bring predestined individuals into contact with each other in the right time frame.

But how can a predestined or deterministic temporal world be consistent with traditional LDS belief in free agency? From the very onset of the restoration of the LDS Church, Joseph Smith taught that God “did not elect or predestinate.”¹ As Bruce R. McConkie states, “Predestination is the false doctrine that from all eternity God has ordered whatever comes to pass.”² Determinism advocates that all earthly events are controlled by prior events (usually in the premortal existence), but not necessarily by God. Although L. Rex Sears makes a case for compatibility of free agency and determinism, Blake Ostler shows that his arguments are easily refuted.³ Also,

many basic LDS doctrines are at odds with both predestination and determinism.

Although free agency and predestination/determinism are generally considered mutually exclusive, LDS teachings and scriptures often do not clarify inconsistencies in these concepts as applied to the preexistence and to God's foreknowledge. In this paper, I examine and explore ways to reconcile inconsistencies by proposing a model for premortal spirits. The viability of the model can be tested against scriptures and scientific observations. If we find factual information that the model cannot explain, then it must be modified or abandoned. The model I propose is that premortal spirits are not predestined for specific mortal bodies, an idea earlier suggested by Frank Salisbury.⁴ At present, I know of no evidence, scriptural or scientific, that would require rejecting the model outright. As with scientific models, however, future information may require modification or rejection.

I also discuss questions about cloning, abortion, evolution, and extinction related to the predestination question. This contribution, however, is not intended to be a discussion of predestination, free agency, or God's foreknowledge, all of which have been discussed from an LDS point of view in recent articles and books, many of which are cited herein.

The Spiritual Creation: Spirit-Body Relationships

Many LDS writers have speculated on how spiritual and temporal bodies are related. Most conclude that the earthly body is identical or nearly identical to the spiritual body.⁵ Parley P. Pratt was one of the earliest LDS theologians to comment on this subject: "The spirit of man consists of an organization or embodiment of the elements of spiritual matter, in the likeness and after the pattern of the fleshly tabernacle. It possesses, in fact, all the organs and parts exactly corresponding to the outward tabernacle."⁶ The most definitive statement is by the First Presidency in 1909: "The spirit of man is in the form of man, and the spirits of all creatures are in the likeness of their bodies."⁷ Also, almost all Mormons agree that spirits have gender, a concept most recently stated by President Gordon B. Hinckley in general conference: "All human beings—male and female—are created in the image of God. Each is a beloved spirit son or daughter of heavenly parents, and as such, each has a divine nature and destiny. Gender is an essential characteristic of individual premortal, mortal, and eternal identity and purpose."⁸

However, as discussed by Duane Jeffery and Jeffrey Keller, the gender of an earthly body is not always clearly defined.⁹ For instance, what is the gender of spirits who reside in the bodies of hermaphrodites (individuals with male and female sex organs) or in individuals who were males in the preexistence, but in this life have a female body and are raised as females? What about individuals who undergo a sex change? Could it be that some individuals may have a spirit gender different from their temporal gender?

Premortal Spirits: A Testable Hypothesis

There may be a way around the predestination problem if the spirits God creates are not predestined for specific organisms. In this case, a premortal spirit is really a *nonspecific* spirit in that it is not intended for any specific organism but can be placed in any one of many different organisms in a similar taxonomic group at approximately the same degree of complexity within this group. For instance, very simple spirits would be placed in unicellular organisms (like bacteria), while very complex spirits would be placed in mammals. However, because all gradations exist between taxonomic groups, there also must be all gradations between spirits. An important implication of the premortal model is that no premortal spirit, simple, intermediate, or complex, is predestined to be placed in any specific organism. When nonpredestined spirits are placed in embryos of humans they would develop along with the embryo and fetus. These spirits inherit individual mental and spiritual attributes from the intelligences they contain. As a human grows and develops during his or her lifetime, his or her spirit also “grows,” at least in terms of mental and spiritual capacities, if not in terms of size and shape. It is now the specific spirit of its host, and only one such organism will ever live on this planet or any place else. For instance, the spirit that was placed in the embryo or fetus that became Joseph Smith was not predestined for Joseph; but once placed in that embryo or fetus, it became the specific and eternal spirit of Joseph Smith.

We are told in Abraham 5 and in Moses 2 and 3 that God created everything spiritually *before* it was created temporally. Just what this means, however, is not entirely clear, since the time interval between the two creations is not specified. It could be billions of years or it could be microseconds. In referring to Abraham 3:22–28, Joseph Fielding Smith favored a long time between the two creations: “We were all created untold ages be-

fore we were placed on this Earth.”¹⁰ However, perhaps not all human spirits were present when the plan of salvation was presented in the preexistence. There are no scriptures to my knowledge that eliminate the possibility that spirits are still being created. We are told that God creates spirits from “intelligences,” which have always existed (Abr. 3:22–23; D&C 93:29–30). A minority viewpoint in the LDS Church, as championed by Bruce R. McConkie, who followed Joseph Fielding Smith on this point, is that “the intelligence or spirit element became intelligences *after* the spirits were born as individual entities.”¹¹ As Joseph Smith taught, however, “Intelligence is eternal and exists upon a self-existent principle.”¹² According to B. H. Roberts:

Intelligences are uncreated entities; some inhabiting spiritual bodies; others are intelligences unembodied in either spirit bodies or other kinds of bodies. They are uncreated, self-existent entities, necessarily self-conscious. . . . They possess powers of comparison and discrimination—they discern between evil and good; between good and better; they possess will or freedom. . . . The individual intelligence can think his own thoughts, act wisely or foolishly; do right or wrong.¹³

Thus, in Roberts’s view, intelligences must possess self-consciousness, the power to compare, and the power to chose one thing instead of another. Whether intelligences possess gender, however, is not known. As summarized by Rex Sears: “The God of Mormonism lives in a universe and among intelligences *not of his own making*. God acquires the ability to predict our behavior only by getting to know us; when meeting an intelligence for the first time, as it were, God does not know if things will work out with that intelligence.”¹⁴

We know very little about how or when spirits were created or whether they are still being created, a fact that has a bearing on the question of predestination. It is a common belief among Mormons that God placed each intelligence in a spirit intended for a specific temporal organism as suggested by Doctrine and Covenants 77:2: “. . . that which is spiritual being in the likeness of that which is temporal; and that which is temporal in the likeness of that which is spiritual; the spirit of man in the likeness of his person, as also the spirit of the beast, and every other creature which God has created.” This sounds a lot like predestination.

However, this interpretation is critically dependent upon when the spirits were created. If they were created at or near the time of the temporal creation, it is not surprising that they would have the “likeness” of the

organism in which they were to be housed. In this case, predestination is not an issue. But if spirits are created long before their temporal hosts, we are faced again with the predestination question. If we have a large “spirit pool” containing spirits of all forms of life, this would seem to predestine that all these forms of life must appear on Earth. Yet if mortal organisms are the products of evolution, which is a random process (see below), there is no reason that hosts for premortal spirits should have appeared on Earth. This observation strongly implies to me one or both of the following scenarios: (1) most or all spirits were not created eons before the temporal creation but were created at or near the time that their temporal hosts were created; or (2) God creates spirits as generic groups with no one spirit intended for a specific temporal organism.

Still another question is just how God decides which spirits to place in which mortal bodies. Some human spirits are placed in fetuses with inherited diseases or missing body parts. Some go into children born into rich families. Others go into children born into poor families. Some go into black children, others into white children or other races. Some go into females, others into males, bisexuals, and homosexuals. Some spirits enter bodies that are members of primitive societies, whereas others enter bodies in highly technical societies of the twenty-first century. Clearly not all humans have equal chances of survival or comparably enjoyable lives. Does God discriminate against some spirits and favor others, based perhaps on their performances in the preexistence?

Although many LDS members believe that our status and the nature of the body we have in this life depend on our performance in the preexistence, I do not share this point of view. The God I believe in is fair and does not purposefully discriminate among spirits. Just how he decides which spirit to place in which body is unknown. One possibility is that he randomly selects spirits or intelligences, thus giving each one an equal chance at where it ends up in this life. A common LDS belief, although not well-supported by scripture, is that the “choicest” spirits are reserved for the latter days. However, this belief again brings up the predestination question—i.e., some spirits are predestined for the latter days.

Can the idea of nonpredestined premortal spirits be accommodated within LDS doctrine? I think it can; and in the following sections, I test the concept against various LDS scriptures and teachings and explore more fully the ramifications of such an idea.

The Preexistence

The relationship between the spiritual creation and the temporal creation has a close bearing on the nonpredestined spirit model. There are several interpretations about which scriptures refer to the spiritual creation and which to the temporal creation.¹⁵ Milton R. Hunter, Bruce R. McConkie, and Joseph Fielding Smith interpret Abraham 4–5 as referring to the spiritual creation and Moses 2–3 and Genesis 2 as recording the temporal creation.¹⁶ In contrast, J. Reuben Clark and W. Cleon Skousen read the Moses and Genesis accounts as referring to the spiritual creation, saying little about the temporal creation.¹⁷ Others seem to think that both the spiritual and temporal creations are recorded in Moses and Genesis.¹⁸ Despite these differences, most LDS scripturalists agree on two aspects of the creation accounts: (1) the temporal creation was patterned at least in some degree after the spiritual creation, and (2) all living things were created spiritually before they were created temporally.

A critical question for the nonpredestined spirit model is just how closely the spiritual creation served as a “blueprint” for the temporal creation. If the correspondence was exact, as some believe,¹⁹ we are again faced with the predestination problem. On the other hand, if the spiritual creation was simply a general outline for the temporal creation or if spirits are created at or immediately before the creation of their temporal hosts, we may be able to sidestep the predestination issue. In either case, I suggest that the spiritual creation was and is the creation of spirits not predestined for a specific temporal home.

We are told of a great war in the preexistence (D&C 29:36–38; Rev. 12:7), suggesting that at least some part of the spiritual creation preceded the temporal creation. If the great war story is taken at face value, it would appear that approximately one third of the hosts of heaven followed Satan, and thus their spirits will never enter earthly bodies. The other two thirds of the spirits, however, have been or will be placed in earthly bodies. Joseph Smith and other Church presidents made statements suggesting that some human spirits “excelled” in the preexistence and that their placement in a specific terrestrial body reflects, at least in part, their progress in the preexistence.²⁰

How does a great war and the progression of spirits in the preexistence constrain the nonpredestined spirit model? If interpreted literally, it implies enough time between the spiritual and temporal creations for at least some humans to have progressed while they were in the

spirit world. James E. Talmage also implies this concept.²¹ Single spirits, much like single soldiers in an army, have individual differences because they house intelligences with individual differences. Given the opportunity in the premortal spirit world, some spirits may have significantly advanced, while others did not.

One of the problems with the great war story, however, is that the spirits who followed Christ and elected to take on a temporal body would seem to have been predestined from that time onwards. If evolution is the process by which organisms appeared on Earth, which seems likely (see below), then evolution had to give rise to a very specific group of mortal humans to house these spirits. Given the random nature of evolution, such a scenario is highly improbable.

One way to get around the predestination problem is if the word “spirit” in the scriptures that refers to premortal existence is misinterpreted. Could these scriptures really be referring to “intelligences,” the precursors of spirits? If so, the great war in the preexistence would have occurred before God created spirits. In the same light, it is possible that the progression in the “spirit world” referred to above is really progression in the “intelligence world.” There is no obvious reason why progression could not occur in intelligences; in fact, such development would be consistent with the principle of eternal progression, a commonly cited LDS doctrine.

Foreordination and Foreknowledge

The nonpredestined spirit model also helps solve problems related to foreordination and foreknowledge. Foreordination, which is a rather unusual LDS teaching, is the concept that certain spirits were called or assigned in the preexistence to carry out certain functions in this lifetime. Doctrine and Covenants 138:55–56 states that many of the “noble and great ones . . . were chosen even before they were born.” We can get around the predestination problem with the caveat that, if spirits are foreordained to fulfill some duty in this life, they can elect not to do so by exercising their free agency.²² Another factor to be considered is the possibility that some individuals may not be worthy to carry out their foreordained callings. In either case, the spirit is not predestined for a calling in the mortal world.

If intelligences and spirits can progress in the premortal world, there is no reason that God cannot assign or ask specific intelligences or spirits

to perform specific tasks when they arrive in this life.²³ God might pick individual intelligences or spirits that have excelled in certain ways in the preexistence and foreordain them for similar earthly endeavors.²⁴ However, foreordained intelligences or spirits are not predestined for specific mortal bodies. McConkie argues that God foreordains certain people for certain earthly missions because of the knowledge he has acquired through ages of observation that the person so ordained has the talents and capacities to perform the required task.²⁵ Perhaps God placed a foreordained spirit in the embryo that would become Joseph Smith simply because Joseph would be born at the right time and the right place to accomplish the foreordained duties of reestablishing the Church.²⁶ If Joseph had not met the challenge, however, some other individual of this time period and in this geographic location would have been given that opportunity.

As with predestination, an absolute foreknowledge of God seems inconsistent with free agency. As nicely summarized by Blake Ostler: "A major problem arises if God foresees precisely what must happen. For if I am morally responsible for an action, I must also be free to refrain from doing that action. But if God knows what my action is before I do it, then it is not genuinely possible for me to do otherwise. If the premises are accepted as sound, then foreknowledge and free agency in the stronger sense of freedom of alternative choices are not logically compatible."²⁷

Is the idea that a premortal spirit can be placed in any earthly body (and not predestined for a certain one) inconsistent with the concept that God has a foreknowledge of the future? It would seem to be if God's foreknowledge is absolute. In an LDS context, the question of the degree of God's foreknowledge has been extensively discussed.²⁸ One interpretation of God's omniscience is that he knows everything that can be known and knows how he will respond to various possibilities in the future but does not have an absolute foreknowledge of the future.²⁹ His omniscience, however, is not limited by what cannot be known at a given time. Talmage suggests that God's foreknowledge is not absolute and does not necessitate predestination but that "God's foreknowledge is based on intelligence and reason. God foresees the future as a state which naturally and surely will be; but not as one that *must be* because He has arbitrarily willed that it shall be."³⁰ B. H. Roberts also suggests that God knows all that is known, which includes all that is or has been, but that he does not know the future in an absolute sense until it arrives.³¹ Ostler supports the

concept of “existentially contingent omniscience,” meaning that God now knows all possibilities but does not know precisely which possibilities will be chosen in the future.³² For free agency to exist, alternatives in the future must exist. They must be real alternatives and not just “apparent” alternatives as would be the case if God had an absolute foreknowledge. If these interpretations of God’s foreknowledge are correct, then premortal spirits are not predestined for a given mortal body nor for a given mortal event.

Before leaving this topic, it is necessary to mention the philosophy of “timelessness” in respect to God. The idea that God is timeless (in the sense that for God there is no past, present, or future) has been discussed by both Robson and Ostler.³³ Although a few, Elder Neal A. Maxwell among them, seem to accept a timeless God,³⁴ many scriptures clearly indicate that God cannot be timeless, a fact superbly summarized by Robson and Ostler.³⁵ I accept these arguments and, for the purposes of this discussion, do not consider a timeless God as a viable alternative.

Premortal Appearances of Christ

One of the most difficult challenges to the nonpredestined spirit model of the preexistence is abundant scriptural references to Christ’s manifestations before his mortal birth. Although Christ (Jehovah) spoke to one or more people prior to his birth (e.g., Moses 1:2; Abr. 2:6–11; 3:11), he appeared in person relatively infrequently. One well-documented incident is his appearance to Mahonri Moriancumer, the brother of Jared: “Behold, this body, which ye now behold, is the body of my spirit; and man have I created after the body of my spirit; and even as I appear unto thee to be in the spirit will I appear unto my people in the flesh” (Eth. 3:16).

How do these premortal appearances of Christ avoid the problem of predestination? If the voice of Jehovah in the Old Testament was indeed that of Christ and if his appearances were in his “mortal form,” then the spirit of Christ must have been predestined to enter Christ’s mortal body. Romans 8:29–30 suggests that God created Christ’s spirit to enter a very specific human being:

For whom he did foreknow, he also did *predestinate* to be conformed to the image of his Son, that he might be the firstborn among many brethren.

Moreover whom he did *predestinate*, them he also called: and whom he

called, them he also justified: and whom he justified, them he also glorified. (Emphasis mine; see also D&C 93:21; 2 Tim. 1:9.)

If these scriptures are interpreted literally, they imply that the spirit of Christ had the same voice and appearance as the mortal Christ long before there was a mortal Christ.

I can see two ways around this problem that preserve the nonpredestined spirit model for most humans: (1) Christ was different from everyone else—he really was predestined for a certain mortal body; or (2) it was not Christ (Jehovah) who appeared in the Old Testament. The easiest way around the predestination problem is that it applies to everyone except Christ. Certainly Christ is a unique individual in many other ways: having God as a father yet an earthly (perhaps surrogate) mother; showing great leadership capacity in the preexistence (John 17:5); being the only person free from sin; and finally, being the Savior of all humankind. Why not add another exception to the list? In fact, the scripture quoted from Romans specifically states that Christ's spirit was predestined. Perhaps God created a spirit for Christ that could appear and speak to earthly inhabitants with a spirit body identical to the mortal body, which would appear in the future. This also implies that Christ's spirit body, which appeared as an adult to the brother of Jared, could return to some nascent state with a very small size before entering the mortal embryo Christ at a later time.

One problem with this idea emerges if Christ is really half mortal—if half his genes came from Mary. This would seem to predestine Mary to be his mother, which in turn would predestine many events that resulted in Mary being born at the right period of time and in the right place—in short, also predestinating her ancestors. It would seem that the only way around this problem is to have all of Christ's genes come from God and an eternal mother, and none from Mary. This scenario, however, relegates Mary to the role of a surrogate mother, not Christ's biological mother.

Alternatively, the images and voices of Jehovah described in the Old Testament may not have been those of Christ. Rather, God may have imprinted in the brains of Old Testament people the image (or/and voice) of a man similar to the way Christ would look or sound as a mortal. It makes no difference in terms of the lessons taught to Old Testament people whether it was really Jehovah's spirit talking to them or some other male voice. This alternative, however, requires that God deceived the individu-

als in the Old Testament who believed they were hearing or seeing Jehovah.

Cloning

The nonpredestined spirit model may solve doctrinal problems raised by cloning. Cloning is the production of a group of identical cells or organisms that come from a single organism. The genetic “parent” of Dolly, the cloned sheep in Scotland, was the nucleus from a single adult mammary gland cell.³⁶ Cloning is not new but has been used since the 1970s to produce cattle for breeding.³⁷ One potential use of cloning is to make human “replacements” for old people or dying relatives, or to make many copies of one’s children. Cloning can also be a valuable tool in studying human development, genetically modifying embryos, and developing new organ transplant methods.³⁸

Humans can be cloned in at least two ways: (1) split an embryo into several segments, and new individuals develop from each segment—this is the natural method that produces identical twins—and (2) clone cells from a human, thus producing individuals identical to that human. Every cell contains the genetic information to make an entire human being. On December 14, 1998, South Korean scientists of the Seoul Fertility Clinic announced that they had cloned a human embryo.³⁹ They claim to have inserted a new nucleus in a human egg cell and activated the cell, which reportedly divided twice *in vitro* before the researchers terminated the experiment. This claim immediately set off a wave of scientific doubt and controversy. Regardless of the outcome of this claim, we are close to the time when a human embryo will be cloned.

Most Christian religions believe in a human soul (spirit + body = soul; D&C 88:15), which brings up the question of whether it is possible to clone the soul. If a person’s physical body can be cloned, but not his or her soul, what does this mean for the clone’s eternal future? The only official statement of the LDS Church on cloning is ambiguous and not widely available to the general public.⁴⁰

It is interesting to explore some of the ramifications of cloning in light of nonpredestined spirits. I can see no reason why God would refuse to place spirits in human clones and, as with any other human, each clone plus its spirit (i.e., a soul) becomes a specific human being. Although the clone would be anatomically identical or at least very similar to its single “parent,” its mental and spiritual qualities could become quite different

depending on various environmental factors affecting the clone during its lifetime. Also contributing to divergence from the original organism are different cytoplasm and mitochondria in the clone. We can consider God as the creator of spirits while scientists, by using genetics, could play an important role in controlling and designing the mortal bodies into which some of these spirits are placed. I do not have a problem with this idea. In fact, God may be waiting for us to develop bodies by genetic engineering or cloning to house more advanced or complex spirits that he will create.

Can scientists clone spirits? Of course, we do not have an answer to this question since science cannot detect, identify, or even validate the existence of spirits. However, in the context of LDS doctrine, it seems that God reserves all manipulations of spirits for himself. There are probably enough intelligences or/and premortal spirits that each human-made clone can have its own God-made spirit.

What about unicellular organisms that propagate by cell division? When a cell divides, perhaps its spirit divides also, or alternatively, God may place a new spirit in one or both of the derivative cells.

Abortion

Perhaps no other moral issue divides the American public more than abortion. In part, the controversy hinges on the question of when the spirit enters the body. If a spirit were predestined for a given mortal body and that body is aborted before birth, the spirit would, technically, never be able to have a mortal existence. However, in the nonpredestined scenario, abortion prior to the time the spirit enters the fetus simply means that the spirit would be assigned to another fetus. Thus, the abortion would not prevent this spirit from acquiring a body but would simply transfer it to another fetus prior to birth. Brigham Young carried this idea even further when he stated: "When some people have little children born at 6 & 7 months pregnancy and they live but a few hours then die, they bless them etc. but I don't do it for I think . . . that such a spirit will have a chance of occupying another tabernacle and developing itself."⁴¹ Although this idea does not require that the spirits are not predestined for their first body, it is certainly consistent with this possibility, thus giving them another chance at life.

Just when the spirit enters the body is the subject of considerable interest and discussion as reviewed by Lester Bush and Jeffrey Keller.⁴² Consider three scenarios: (1) the spirit enters at conception, (2) the spirit en-

ters at birth, or (3) the spirit enters sometime between conception and birth. In the nonpredestined spirit model, if a spirit enters the embryo at conception, then clearly abortion at any time will prevent it from having a second chance to acquire a body. However, if a spirit enters at birth, abortion could result in reassignment of the spirit to another body, provided that the spirit was not predestined for the aborted fetus. The same argument can be used for any abortion, provided it occurs before the spirit enters the body. If Brigham Young is right, some spirits may have a second chance at life if they are born prematurely the first time around. This idea, however, is not consistent with the nonpredestined spirit model, if spirits are placed in the fetuses before the premature births.

There appear to be no unambiguous scriptures or statements by LDS prophets about when the spirit enters the body.⁴³ However, the official stand of the LDS Church on abortion allows us to infer an answer. Except for rape, incest, endangering the mother's life, or fatal defects in the fetus, the LDS Church has taken a very strong stand against abortion at any stage during fetal development.⁴⁴ Does this imply that the spirit enters the embryo at the time of conception? If so, it would suggest that, at the time spirits enter the embryo, they are very small (assuming they have a size) and that perhaps they grow along with the mortal body through its lifetime. However, if spirits enter the embryo at conception, what happens to this embryo if it is later cloned, if it fuses with another embryo, or if its genes are modified? Is the spirit also cloned or fused; and if so, are there some organisms with half spirits or multiple spirits (in the case of embryo fission or fusion)?

This scenario sounds improbable and seems to imply that spirits do not enter embryos until the embryos have developed beyond the stage that geneticists can modify them, or several weeks after conception. Also supporting this idea is the fact that 30–40 percent of human embryos are spontaneously aborted, chiefly in the first few weeks after conception. If spirits were already in these embryos, this would terminate their "life" before birth, thus discriminating against or perhaps favoring these individuals, depending on what happens to these spirits after death. In any case, unless they are recycled into another body, they are deprived of an earthly life.

Organic Evolution

The nonpredestined spirit model also resolves doctrinal problems

related to organic evolution. Although not everyone accepts it, the evidence that life on this planet has developed by organic evolution is overwhelming.⁴⁵ No longer must we rely on a few poorly preserved fossils, for we now have a vast fossil record with many of the so-called missing links identified, and more being identified every day.⁴⁶ To complement and support the fossil record, we have evidence from genetics, DNA biochemistry, and anthropology, all of which strongly support evolution as the mechanism by which life (including human life) has developed on Earth.⁴⁷ Fortunately, it is not necessary to consider evolution and Christian doctrine for the origin of humans as incompatible. Kenneth Miller summarizes nicely: "Evolution was much more than an indirect pathway to get you and me. By choosing evolution as His way to fashion the living world, [God] emphasized our material nature and our unity with other forms of life. He made the world today contingent upon the events of the past. He made our choices matter, our actions genuine, our lives important. In the final analysis, He used evolution as the tool to set us free."⁴⁸

Furthermore, LDS doctrine has the concept of eternal progression, and evolution can be considered as one example of eternal progression. Although officially the LDS Church takes no stand on organic evolution,⁴⁹ there are different viewpoints on whether evolution and LDS doctrine are compatible.⁵⁰ It is not my purpose here to summarize the vast evidence for organic evolution. As a scientist, I accept evolution as the process by which humans eventually appeared on Earth. My purpose here is to explore the significance of evolution in terms of the nonpredestined spirit model.

In studying the fossil record over the last four billion years we see an overall progression of organisms from simple unicellular types to a great variety of complex animals and plants. Actually, the origin of humans should be considered as a process, not an event. Humans as such (the genus *Homo*) appeared about two million years ago in East Africa and spread to Asia and Europe soon after this time. The combined results of studies of fossil humans, genetics, and DNA indicate that *Homo sapiens* appeared about 195,000 years ago, when African and non-African linguistic and genetic lines separated somewhere in eastern Africa.⁵¹ By at least 100,000 years ago, humans had moved into Asia and Australia, and sometime between 20,000 and 35,000 years ago, they had moved into Europe and the Americas. Prior to the appearance of *Homo sapiens*, human ancestral

forms such as *Australopithecus* were widespread in Africa. Just how do all these hominids fit into the creation of human beings?

One of the problems in making humans by evolution is the randomness that characterizes evolution, as Carl Sagan emphasizes: "Even if life on another planet has the same molecular chemistry as life here, there is no reason to expect it to resemble familiar organisms. . . . In general the random character of the evolutionary process should create extraterrestrial creatures very different from any that we know."⁵² Hence, humans are not a *necessary* product of evolution.

What does this mean for the LDS belief that humans are created in God's image? Some Christian religions avoid the problem by assuming that "image" does not mean physical image but only that our "hearts and minds are fashioned in the likeness of God."⁵³ Some scientists point out that genetics and selection are only two of the forces directing evolution; furthermore, the final organisms are constrained by mechanical factors controlled by laws of physics. In this case, God may have "plenty of room to operate with predictability within evolution's bounded variation."⁵⁴ Still another possibility that cannot be disproved by science is that mutations are not always random. Perhaps on occasion, God directs mutations to ensure that one evolutionary line eventually leads to humans. This occasional tweaking of the genes by God may not be recognizable in the fossil record. If this is the case, life forms that evolve on another planet may be quite different from those on Earth, as Sagan hypothesizes, but humans could still appear through an evolutionary line closely monitored and directed by God.

As life has evolved on Earth during the past four billion years, God may have created increasingly complex spirits to enter the evolving mortal hosts without, according to my argument, any specific spirit being predestined for a specific organism. In a very general way, spirits of one degree of complexity are placed in organisms of similar taxonomy and complexity. However, because evolution produces all gradations between taxonomic groups, there also must be all gradations of taxonomy and complexity among spirits. One group of complex spirits would enter individuals in the evolutionary chain of hominins (primitive hominids and humans). According to my hypothesis, God created the most complex and highly developed spirits of this group for the bodies of *Homo sapiens*.

But what if humans continue to evolve and their descendants do not look much like present-day humans? One appealing aspect of the

nonpredestined spirit model for evolution is its flexibility. As new hominins evolve, perhaps by cloning and genetic engineering, God may create appropriate spirits for these individuals. Perhaps even a different species of *Homo* will appear in the future through the efforts of genetic engineering and cloning.

Still another question related to evolution is that of how God acquired his physical body. As taught by Joseph Smith in the King Follett discourse, “[God] was once a man like one of us and God himself, the Father of us all, once dwelled on an Earth the same as Jesus Christ himself did in the flesh and like us.”⁵⁵ This statement implies that God acquired his body by a process of evolution—the same way humans acquire their bodies. Does this mean that there was another God at the time “our God” was going through his planetary existence? This idea is consistent with Joseph Smith’s teachings on the “multiplicity of Gods.” Furthermore, if our God created the universe with a big bang some 13.7 billion years ago, there must have been other universes, perhaps one God for each universe. In fact some cosmologists today consider the possibility of multiple universes to lie well within the province of scientific reality.⁵⁶

Extinctions

It is well known that many organisms have become extinct, some in the geologic past as recorded by the fossil record, and some very recently due directly or indirectly to the impact of humans.⁵⁷ Some extinctions involve single species, such as the dodo bird, the passenger pigeon, and the elephant bird, all of which have become extinct in the last two hundred years. Others involve many life forms and are referred to as mass extinctions, with many species from different ecological environments becoming extinct within short periods of time. An important example is at the Cretaceous/Tertiary (K/T) boundary 65 million years ago when more than two hundred animal families became extinct, probably resulting from an asteroid impact.⁵⁸ A second example occurred at the end of the Permian 250 million years ago, when more than three hundred animal families disappeared due to a combination of geologic and climatic changes at this time. Some groups, such as the dinosaurs at the K/T boundary, disappeared entirely during a mass extinction, although their relatives, the birds, survived.

Extinction brings up an important question: When an organism or a group of organisms becomes extinct, how does their disappearance con-

strain the timing of the creation of the spirits of these organisms? If these spirits were created long before the organisms appeared on Earth, what happens to them when their earthly hosts are no longer being produced? One possibility is that the spirits intended for extinct organisms “skip” a mortal existence and directly acquire an eternal body. If this is the case, however, why is a mortal existence necessary at all for any organisms?

A more plausible possibility, I argue, is that God creates spirits for many (or all) of His “worlds” and places them in one gigantic “spirit pool” to be used as needed. In this case, if a group of organisms becomes extinct on one planet, their previously created spirits can be used on another planet in some other part of the universe. Although we cannot eliminate this possibility, I know of no scriptural evidence to support it, and evolution, as a random process, would not necessarily produce terrestrial organisms on another planet. To me the most obvious answer to this problem is provided by the nonpredestined spirit model. God does not create spirits until just before their mortal creation, with the possible exception of the human spirits who participated in the war in heaven. If spirits are created by God as needed and placed in mortal organisms, there is no residual “spirit pool” for organisms that become extinct and no predestination.

Conclusions

The LDS concept of a spiritual creation may predestine spirits to specific mortal organisms, thus challenging the principle of free agency. The predestination problem, however, can be avoided if the spirits that God creates are not predestined to specific organisms. Instead, premortal spirits are not intended for any specific organism but can be placed in any one of many different organisms. However, because all gradations exist between taxonomic groups, there also must be all gradations between spirits. The common idea that the spiritual creation was a blueprint of the temporal creation must be modified to avoid predestination. This adjustment can be easily made by seeing the spiritual blueprint as a very crude outline, rather than as an exact rendering of the final product. Still another way around the predestination problem would be that spirits are created at or immediately before the creation of their temporal hosts.

Nonpredestined spirits can be foreordained, but foreordained spirits are not predestined for specific mortal bodies. The premortal appearances of Christ strongly suggest that Christ is an exception and that he really was predestined for a certain mortal body. To avoid the predestina-

tion of Mary and her ancestors, however, she must be the surrogate mother, not the biologic mother of Christ.

There is no reason that God should not create spirits for clones. Premortal spirits placed in human clones produce a human that develops into a specific individual just like a nonclone. In the future, geneticists may play an ever-increasing role in controlling and designing some human bodies, but only God can create the spirits that go into these bodies. In terms of the nonpredestined spirit model, if abortion is performed prior to the time the spirit enters the fetus, this spirit could be placed in another fetus, and there is no problem with predestination. The great unknown is when the spirit actually enters the body.

If mortal organisms are the products of evolution, which is a random process, there is no reason that appropriate hosts for previously created spirits should appear on Earth. This conclusion strongly implies that most or all spirits were not created eons before the temporal creation but were created at or near the time that their temporal hosts were created, or/and that God creates spirits as generic groups with no one spirit intended for a specific temporal organism. To ensure that humans, patterned after God's image, appear in one evolutionary line, God may direct some mutations. Occasional tweaking of the genes by God may not be recognizable in the fossil record. However, no spirit is predestined for a specific organism; rather, spirits of a given complexity are placed in organisms of similar taxonomy and degree of complexity. Extinctions in the geologic record avoid the predestination problem if God creates spirits as needed and places them in mortal organisms. This way there is no residual "spirit pool" for organisms that become extinct and no predestination.

A nonpredestined spiritual creation provides important insights into the well-established conflict between predestination and free agency, yet it preserves the individual as the distinct entity it was when it coexisted with God as an intelligence.

Notes

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13. B. H. Roberts, *The Truth, the Way, the Life: An Elementary Treatise on Theology* (San Francisco: Smith Research Associates, 1994), 287.

14. Sears, "Determinist Mansions in the Mormon House?" 141; emphasis mine.

15. For an excellent review, see Blake T. Ostler, "The Idea of Preexistence in the Development of Mormon Thought," *Dialogue: A Journal of Mormon Thought* 15, no. 1 (Spring 1982): 59.

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29. Ostler, “Mormonism and Determinism”; Robson, “Time and Omniscience in Mormon Theology,” 17.
30. Talmage, *Jesus the Christ*, 28–29; emphasis mine. Robson, “Time and Omniscience in Mormon Theology,” 17, also argues for this position.
31. Roberts, *The Truth, the Way, the Life*, 477–78.
32. Ostler, “The Mormon Concept of God,” 71; Ostler, *Exploring Mormon Thought*, chap. 10.
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