

HUMAN FREE CHOICE AND DIVINE OMNISCIENCE: TOWARD RESOLUTION OF AN APPARENT INCOMPATIBILITY*

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I. INTRODUCTION

For at least two thousand years, the question of the interplay between human free choice and Divine omniscience has been vexing, if not to the average layman, at least for many theologians and philosophers. During the twentieth century¹ Swedenborgians have also shown interest in this question. For most Swedenborgians, both human free choice and divine omniscience are operable in the process of spiritual development. To accept this reality, without worrying about the details, is enough for many Swedenborgians as they go about the business of spiritual growth. For those with a more philosophic inclination, the apparent conflict between human free choice and divine omniscience is often resolved as follows. Human free choice operates in a space-time framework of past, present, and future. God, on the other hand, being outside of space and time, is able to be omniscient in an eternal ‘present’, and therefore knows all, including the temporal future of humans as people exercise their capacity for making free choices. Yet, and this part can be tricky, God’s omniscience in His eternal present, it is said, does not predestine the activity of human free choice in the temporal human future.

There is much that seems mysterious about how this interaction happens. As thinking beings we would like to satisfy our curiosity as far as possible. The question then arises as to what degree one can inquire appropriately into the *how* of the process. At what point should a ‘mystery of faith’ remain a mystery? The “nunc licet” permission (TCR 508) that it is now permitted to enter with understanding into the mysteries of faith still has limitations. Perhaps, for Swedenborgians, the important limitation is

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the necessity of not doing violence to the general framework of Swedenborg's theological writings. Whatever new insights we find should be consistent with that framework.

A discussion of the relationship between human free choice and Divine omniscience can be framed in at least two ways. In this article we focus on the epistemological relationship between free choice and omniscience and try to contribute an increment to existing knowledge in that area. Of broader interest and perhaps more immanent for human salvation, is the related subject of Divine providence and human free choice. Divine providence is the government of Divine love and wisdom in human affairs (*DP 2*) and is therefore a dynamic relationship between God and His people. As evidenced by the activity described in endnote #1, and in other Swedenborgian journals, there have been many discussions of human free choice centered on the role of Divine providence with secondary attention to Divine omniscience. While our essay cannot exclude considerations of the effects of Divine providence, the focus will be on free choice and omniscience in a more narrow way.

We begin, in section II with brief descriptions of certain key ingredients, the nature of human free choice, scriptural indications of Divine omniscience, and a statement of our topic as a problem in logic. In section III we consider various historical approaches. Some of these suggest a rapprochement between human free choice and Divine omniscience, whereas others suggest dominance of one over the other. We go on to consider, in section IV, several mechanisms that might resolve the issue as raised historically and might partially intersect with Swedenborgian views. Thus in summarizing the various historical approaches we provide background color for the subject and suggest a context for the Swedenborgian approach.² Choosing from among these proposed solutions we suggest 'timelessness' as the most fruitful area for further investigation. Timelessness and the timeless nature attributed to God by Swedenborg seem to be consistent. The rest of the paper will concentrate on this question and lead to a hypothesis about Divine omniscience. In section V we move to a somewhat technical discussion of time and what it means to be able to know space-time events. We provide some elementary knowledge of Einstein's special theory of relativity. In section VI we further discuss the

implications of 'knowing' and finally suggest a way in which Divine omniscience might occur in an eternal present.

II. THE PROBLEM

1. The nature of human freedom

Human freedom is often defined in a negative sense. That is, in the first instance freedom is the absence of constraints, the state of not being under arbitrary controls, not subject to direction, not limited, and so forth. Freedom may also be defined positively as the ability to act arbitrarily in a variety of contexts: economic, political, philosophical, and religious. Typically each of these contexts has its own set of constraints upon free actions.

Freedom implies a lack of determinism. Some have seen classical physics, a deterministic science, as a problem for the existence of free will. It has been argued that if humans are made of physical particles (atoms) and are structured as physical systems then there seems to be no matrix for free will. Others have argued that the newer physical model of quantum mechanics with its oft mentioned Heisenberg uncertainty principle shows that nature is indeterminate at its deepest levels. The wave function solution to Schrodinger's equation provides a measure of the probability, not the certainty, that a system is in a certain state. Therefore the logical chain of determinism is broken in the structure and atomic substance that composes the biology of human beings. Willard Enteman has argued,³ quite reasonably, that Heisenberg's uncertainty principle does not prove the existence of free will. But by *partially* removing determinism from physics, it opens the door to free will and provides one necessary condition for free will, namely indeterminism in physical matters. Furthermore, the determinist now has a much greater burden of proof in his argument against free will.

A further consideration in a discussion of free will is what role, if any, can be assigned to chance. Chance comes in two guises. Chance may exist because of a lack of knowledge. Someone flips a coin and assumes that outcome is controlled by chance. Yet the dynamics of coin flipping are those of deterministic classical physics. If the coin flipper knew the exact initial conditions of the coin, had complete knowledge of the forces in-

involved in the coin toss, then she could predict the outcome. In this case chance is merely a measure of ignorance. On the other hand, according to quantum physics, chance-in-principle exists due to the uncertainty principle. More precisely, ignorance-in-principle exists. There are certain bits of information that a physical system will absolutely not give up. Speaking anthropomorphically, the system itself may not know certain information until it reveals its particular state in some experiment. From the perspective of free will, chance-in-principle would seem to be a necessary, but not sufficient condition for the existence of free will.

Another consideration is the place of causation in this discussion. Quantum mechanics exhibits causation as well as indeterminism. The time dependent equations of quantum physics predict exactly how probabilities will evolve. The uncertainty of the probabilities is preserved, but causation drives the uncertainty forward in a deterministic manner. Similarly in human affairs causation provides constraints on human choice. The choice of whether to buy a new car may be causally related to a person's spending habits, the available financial liquidity, the wish to try the latest model, or whether the neighbors bought a car. These circumstances are both psychological and material. While none of these circumstances may be deterministically causal there can still be a partial causal chain toward a positive action to buy a car. Other causal circumstances may be negative and quite deterministic for a choice against buying a car. For example, a shortage of materials during wartime may require that no new cars be produced. Or the buyer may lack liquidity and be unable to find a positive lender. The causes of a negative decision to buy the car are then the restrictions provided by external circumstances. Such causality is of a stronger variety and provides definite limitations to the exercise of free will. Similar considerations apply to the existence of legal and moral laws. In so far as these must be obeyed, they also provide causal limitations to free will. Thus, causality acts to shape the environment in which free will acts. Given a variety of material, economic, physical, legal, and other restrictions from our environment, we tend to see free choice in spiritual matters as the 'freest' capability that we all have, no matter what our circumstances. We seem most free in what we can think and will.

The existence of human free will requires that a person have a certain character. Each of us has a certain heredity, genetic tendencies, and envi-

ronmental influences that make one course of action more attractive than another. According to the philosopher Clifford Barrett, if the chooser has no preference then freedom is abridged.⁴ Barrett says, "The problem of freedom then turns out to be primarily one of discovering what we really and fundamentally *are*."⁵ And further Barrett states that ". . . genuine freedom is to be found in doing the most reasonable thing in any given situation."⁶ The philosopher W. C. Stace goes further by linking free will to morality, ". . . for it is certain that if there is no free will there can be no morality."⁷ Thus without free will, moral precepts are meaningless. Enteman also makes the ethical connection with free-will. The existence of free will makes logical the possibility of moral judgment. Stated differently, moral judgment is inconsistent with determinism.

Characteristically, Swedenborg defines free will by what it does and its importance in human spiritual growth. For example, in *True Christian Religion*, he states, ". . . it is free will that makes man a man . . ." (TCR 481). Or again, "Simply by observing one's own thought processes it is possible to know that everyone enjoys free will in spiritual matters" (TCR 497). Swedenborg recognizes obvious limitations on free choice in natural affairs, but places spiritual responsibility squarely with free choices made by people in the realm of spiritual matters. The most important aspect of human free choice is its activity in spiritual development.⁸

2. Divine omniscience

As in the previous section we provide some notions of omniscience leading to some quotes on the topic from Swedenborg's theological works. Let us begin with a definition.

In Christian theology, the notion of omniscience refers to the property by which God knows all past, present, and future things and all events, including all their circumstances and boundary conditions. Omniscience encompasses both the actual and possible things and events in past and present, but it includes knowledge of the possibilities that will be actualized as well as those that will not be actualized.⁹

God's complete knowledge of the *past* and *present* is not really the issue here although we note two out of many scriptural references that point to such knowledge.

Search me, O god, and know my heart!
Try me and know my thoughts!
And see if there be any wicked way in me,
And lead me in the way everlasting! Ps. 139:23–24.

Or again

The Lord looks down from heaven,
He sees all the sons of men;
from where he sits enthroned he looks forth
on all the inhabitants of the earth,
He who fashions the hearts of them all,
and observes all their deeds. Ps. 33:13–15.

The more difficult point is God's knowledge of the *future*, but here again the predominant impression from Scripture is that God does know what is going to happen, and he often informs His people in prophecy.

When a prophet speaketh in the name of the Lord,
if the thing follow not, nor come to pass,
that is the thing which the Lord hath *not* spoken. . . . Deut.18:22

The philosopher William Lane Craig lists a variety of prophecies in both the old and new testaments that point to God's foreknowledge and the communication of that foreknowledge to the prophets. These include various dire predictions about the fates of Israel and Judah, the destruction of Jerusalem, the Babylonian captivity, and so forth. In the new testament, the gospels often point to events in the life of Jesus that are fulfillments of prophecies in the old testament. Beyond fulfillment of old testament prophecies, Jesus Himself predicts the destruction of Jerusalem and says that He will come again.¹⁰

In our discussion of human free choice we were a little vague as to the boundaries of this human capability. On the face of things, it seems that Divine omniscience is a more defined property. As with human free choice, Swedenborg takes an operational approach. Here is a small selection of quotes.

God is omniscient, that is, he perceives, sees, and knows down to the tiniest detail everything that happens according to order; and from these things what happens that is contrary to order. (TCR 59)

The Lord foresaw from eternity what the human race would be, and what would be the quality of each member of it . . . (AC 3854:2)

The life of every man is foreseen by the Lord, as to how long he will live, and in what manner. Consequently he is directed from earliest infancy with a regard to a life to eternity. (SD 5002)

The above statements support Divine foreknowledge of human events and the ultimate fate of individual human beings. Yet in other statements, Swedenborg seems a bit ambivalent about an uninterrupted chain of Divine foreknowledge in regard to human decisions. For example, quoting from further on in *Arcana Coelestia* 3854 we find,

For every smallest moment of man's life involves a series of consequences extending to eternity, each moment being as a new beginning to those which follow . . . (AC 3854:3)

Every change and variation of the state of the human mind produces some change and variation in the series of things present, and consequently in the things that follow. (DP 202:3)¹¹

These latter quotations suggest that perhaps God adjusts some feature of His eternal view of an individual's final state according to human choices. His foreknowledge may consist of the knowledge of all possible outcomes of all possible choices, rather than knowledge of the actual future human choice. This version of Divine omniscience seems less strong

than that suggested by the previous quotations and therefore this latter version would seem to more strongly safeguard human free choice.¹² I call this version ‘weak’ omniscience. In contrast we define ‘strong’ omniscience as that of a Divinely, and precisely, known future happening in an ‘eternal’ Divine ‘present’. But rather than deal with this issue now we first present more facets of the main problem.

3. Logic considerations¹³

The apparent conflict between human free choice and Divine omniscience has been discussed in recent decades by several philosophers.¹⁴ The point of this subsection is simply to suggest that such discussions are extant and may be of interest to readers with a technical background in logic.

Most treatments begin with a statement of what is referred to as the ‘incompatibility’ problem. This characterization refers to the alleged incompatibility of human free choice and Divine omniscience. Let us briefly follow the treatment by Michael Robinson.¹⁵ He describes a relatively simple statement of the problem, which has some logical problems, and then a slightly more complex statement, which, at least initially, appears to prove incompatibility between omniscience and free choice. Thus, resolution—showing that incompatibility is ultimately incorrect—requires changes in what some might consider to be a naïve notion of omniscience.

Following Robinson, the ‘simple’ statement of the incompatibility problem is as follows.

If God knows that I will do A, then surely I must do A. (A is some action or thought.)

God knows that tomorrow I will do A.

Therefore, tomorrow I must do A.

Now one could put this into technical language as p and q propositions, but let us try to use the sort of words given in the above statement. Robinson suggests that there are two possible faithful technical statements of the above. The first is

Necessarily, if God knows that I will do A, then I will do A.

God knows that I will do A

Therefore, I will necessarily do A.

This first interpretation, according to Robinson and others suffers from a technical logic flaw known as a *modal fallacy*. This is a subtle point and the reader is referred to philosophy texts for a full discussion. The point is that this first statement of the argument does not make the case for incompatibility of free choice and omniscience.

The second interpretation differs only in the first line.

If God knows that I will do A, then I will necessarily do A.

The problem here is that the premise here is questionable. In other words the argument in this form seems to already assume that there is no free will. The argument assumes what it is trying to prove. At this point, the incompatibility argument is in trouble. However, a valid argument can be recovered by adding a further assumption. This is the more complex statement because we now add an important new premise. That is, we go back to the first statement of the argument but change the second statement to a *necessary* condition. The argument now reads

Necessarily, if God knows that I will do A, then I will do A.

Necessarily, God knows that I will do A

Therefore, I will necessarily do A.

If the new second line is true then, according to the rules of logic, this argument is solid. This being the case, we need to examine the change carefully. Justification for the modified second line comes from what incompatibilists call the 'necessity of the past'. That is, God knew, at some time in the past that I would do A in the future. Therefore *since the past cannot be changed*, God's (past) knowledge of what I would do in future is necessary. Thus, it seems difficult to avoid a strong logical case for incompatibility.

Rather than try to intellectually wrestle our way out of this seeming dilemma at this point, we next consider some thoughts on the subject from important figures in history

III. HISTORICAL SUMMARY

The problem of human free choice versus Divine omniscience has roots in pre-Christian Greek and Jewish thought.

1. Pre-Christian thought

One of the first notions about freedom and free will was the distinction between a slave and a free individual. Early Greek thought held free will was the denial of intrinsic limitations in pursuit of voluntary goals. Free choice was a matter of action and doing. Plato and Socrates shifted the emphasis to freedom in the mind or freedom of thought. Aristotle held that free will was the power to harmonize that which was good or the good life. To be free is to think and act virtuously. The polytheism of the Greeks and the Romans tended to diminish the idea of Divine omniscience. Each god and goddess had certain superhuman qualities, but as mythology tells us, the gods could be tricked and therefore divine omniscience seems unlikely. Furthermore, religion was a matter of habit and timely propitiation of the gods rather than a personal commitment in the Christian sense. Because the personal commitment and subsequent salvation were not issues, the idea that the gods might know a person's future destiny would not have been of primary concern.

On the other hand, Greek thought was also fatalistic. According to the Stoics, the wise person was one who came to terms with life as provided by fate. Fate was inexorable, unvarying, pitiless, often felt to be providing a counterbalance of misfortune to compensate for an abundance of good things that might have been given to an individual. Thus, in that context, there was significant tension between fate and free will. Cicero, among others, grappled with this problem. He questioned the point of sacrifices and propitiations to the gods if fate was inexorable. Yet he suggested that perhaps fate already took into account such propitiations when deciding

an individual's destiny. This would be a form of foreknowledge which is part of omniscience. Nevertheless, in the end he argued that divine omniscience only relates to fortuitous events and is of less importance than human free choice.¹⁶

The Jewish tradition seems to have held human free choice and Divine omniscience as absolutes without attempting reconciliation of the apparent incompatibility. For example, omniscience is confirmed by the following passage. "God is the almighty ruler of heaven and earth who knows all things" (Ps 93:9). Free will is supported by other passages such as, "I call heaven and earth to record this day against you, that I have set before you life and death, blessing and cursing; therefore choose life, that both thou and thy seed may live" (Deut 30:19). See also Joshua 24:15 and 1 Kings 18:21. Within this general context different groups held various opinions. Josephus Flavius (37AD–ca100), Jewish historian, described these positions as follows. The Pharisees considered events to be predestined, but that human will is involved in issues of virtue and vice. The Sadducees rejected determinism. The Essenes believed in predestination but also held that people were accountable for the doing of evil. Rabbinic tradition held free will and omniscience equally as indicated by "All is foreseen and yet freedom is granted."¹⁷ Later thinkers seem to have emphasized free will.

2. Christian thought

In the context of our problem, Christianity brought some unique circumstances to the situation. After its initial early days, Christianity became an international religion spreading monotheism throughout the Roman Empire. Christianity further emphasized personal responsibility in the relationship of the individual with the neighbor and with God. Thus God became more omniscient than perhaps the many gods of polytheism, and man became more responsible for his relationships both temporal and eternal.

The early church fathers were aware of this newly enhanced dichotomy. Prominent among these was Paul (ca 10–ca 67) who seems to have introduced the doctrine of Divine *grace*. Christians achieved salvation through the grace of God which was predestined or foreordained

from the beginning of time in the Divine plan. No one is saved by his own efforts (free choices) but by the grace of God. God, the father, foresaw that Christ would atone for the sins of humankind, and therefore the elect who were chosen from the beginning would be saved through Divine grace. The elect are predestined to profess faith in Christ through baptism whereas the damned will choose not to believe. (This was later called ‘double predestination.’) As Paul said in his letter to the Roman church, “For he saith to Moses, I will have mercy on whom I will have mercy, and I will have compassion on whom I will have compassion. So then it is not of him that willeth, nor of him that runneth, but of God that sheweth mercy” (Rom. 9:15, 16). Paul thought that good people could only choose to do good because of God’s grace. Early Christian writings (but not the gospels) by Paul and others, as well as the book of Acts, contain several instances of the Greek word for foreknowledge (*proginosko*) and thus provide an explicit emphasis on Divine omniscience of the future.¹⁸ (We note that Swedenborgians only considered the four Gospels and the Apocalypse to be canonical.)

Augustine (354–430), was one of the most influential figures in the formulation of Christian doctrine. His efforts to resolve the seeming conflict between free will and omniscience were based upon two key ideas. First, he said that evil was not something positive but was negative and second, “that God’s omniscience is not the same as advance human understanding but is based upon the eternity of God according to which earthly events are not progressively known to Him but are *always present*” (Emphasis added).¹⁹ In regard to free will Augustine felt that it could not do good unless helped by grace. In book V, chapter 9 of his *City of God*, Augustine argues against Cicero for his ultimate rejection of divine omniscience as a way to save free will. In chapter 10 of the same book, he seems to give equal weight to free will and omniscience. “Therefore we are by no means compelled, either, retaining the prescience of God, to take away the freedom of the will, or, retaining the freedom of the will, to deny that He is prescient of future things, which is impious. But we embrace both.”²⁰ Despite this statement Augustine is usually considered to favor predestination through God’s grace. Yet on balance, Augustine’s position seems not unlike the ‘strong’ omniscience position of many Swedenborgians (See footnote 12). In *True Christian Religion* 840 Swedenborg describes a conver-

sation with Augustine in the other world and how the latter intended to spread the new revelation. Thus we assume that Augustine eventually 'got it right'.

A contemporary of Augustine, Pelagius (ca 354–ca 420/440) was also active in the debate and was the special target of Augustine in four of his letters. Pelagius did not hold with the doctrine of original sin and thereby diminished the power of the doctrine of Divine grace with the resulting stronger emphasis on the ability of humans to make the right choices and thereby achieve salvation. Thus he gave human free choice a stronger position than omniscience. His ideas spread widely and were followed in Britain, Palestine, and North Africa.

The Thomistic approach—Thomas Aquinas (1225–1274)—which was advanced by Dominican medieval scholastics, was a slight modification of the Augustinian doctrine. Divine foresight was still omniscient and man's free will was used in the "planned sending of a rational creature to the end which is eternal life."²¹ "Man's turning to God is by free choice; and thus man is bidden to turn himself to God. But free choice can only be turned to God when God turns it . . ." "Man can do nothing unless moved by God according to John 15:5."²²

This theme of God moving man's will toward good continues through the thinking of many Catholic and Protestant thinkers. In most cases there is a mixture of varying degrees of priority given to the role of grace upon the elect (those to be saved) in helping them to make free will choices to meet a predestined end.

John Calvin (1509–1564), a French protestant reformer, placed a very strong emphasis on the omniscience of God and predestination either to election (through grace) or reprobation (damnation). He wrote a series of 'Articles concerning Predestination'.

Here is a sampling.

Before the first man was created, God in his eternal counsel had determined what he willed to be done with the whole human race.

In the hidden counsel of God it was determined that Adam should fall from the unimpaired condition of his nature, and by his defection would involve all his posterity in sentence of eternal death.

Upon the same decree depends the distinction between elect and reprobate: as he adopted some for himself for salvation, he destined others for eternal ruin.

Calvin continues in this same vein for a few more lines and then, quite remarkably, he goes on to assert the following:

While the will of God is the supreme and primary cause of all things, and God holds the devil and the godless subject to this will, nevertheless God cannot be called the cause of sin, nor the author evil, nor subject of any guilt.²³

This is an extreme example of the Protestant emphasis on predestination and the diminishment of free will. Thus salvation requires faith in being one of the elect, much more than in any human attempt to live a good life through free will.

Directly opposing Calvin was the doctrine of Jacobus Arminius (1560–1609) a Dutch theologian at the University of Leiden. Arminius opposed the doctrine of ‘damnation by determinism’ and his influence gave rise to a movement called Arminianism. In 1610 the Arminian clergy published a codification of Arminius’ beliefs into five major points, the first four of which were rejections of the major Calvinist doctrines of election, predestination, the belief that Christ died for the elect alone, and the belief in irresistible grace. And finally there was an assertion that the saints could fall from grace. In 1615 the Calvinist synod of Dort declared these tenets to be heretical and followed up with persecutions of Arminians. Clearly the Arminian theology provided an increased emphasis on human free choice and an apparent diminution of Divine omniscience and predestination.²⁴ In colonial American the Congregationalist (Calvinist?) minister Jonathan Edwards preached against Arminianism, beginning in 1731, and wrote a detailed rebuttal in his work “A careful and strict inquiry into the prevailing notions of the freedom of the will.”

The history of Christianity contains many further shades of point of view. The debate between Desiderius Erasmus (1466–1526), a Dutch Catholic theologian, and Martin Luther (1483–1546) the first protestant is also part of this story. Erasmus emphasized the free will side by having free

will as *cooperating* with God whereas Luther held to his view of salvation by grace alone and dismissed the notion of any cooperation of God with man.²⁵

More recently, Christian denominations, especially more liberal denominations, have tended to emphasize the role of human free choice, and tacitly de-emphasized the effect of predestination and therefore Divine omniscience. Let us end this very brief review with a quote from Swedenborg's pre-theological work.

It is evident that the supreme wisdom of God requires this free will in man, and that His providence is directed chiefly in guarding and promoting this faculty, and indeed to such a degree that he will not suffer the slightest thing to interfere with it; but He rather permits men to rush into the most abominable crimes than deprive them in the least of their free determination. (*R. Psych.* 377)

Now let us turn to some extant philosophical and theological resolutions of the apparent contradiction between human free choice and Divine omniscience.

IV. SOME POSSIBLE RESOLUTIONS

Historically, it seems that most established theological resolutions of the problem have proposed some version of the 'strong' omniscience view, often with reference to God's knowledge existing in a timeless eternal present, whereas at other times God's omniscience is extant simply 'before creation'.²⁶ On the other hand, we have seen that the proponents of 'weak' omniscience have often been deemed heretical by organized conventional Christianity. Yet with a more tolerant modern attitude this latter option is being explored again. In this section we will give brief summaries of two general avenues toward the resolution which are respectively somewhat in the camps of weak and strong omniscience. The first is a position called the 'middle way' and the second is 'timelessness'.

1. The middle way

The middle way originated with the Spanish Jesuit theologian Luis de Molina (1535–1600) and the Spanish theologian and philosopher Francisco Suarez (1548–1617). Both attempted to find a way around double predestination which reformers such as Luther promulgated. While still holding that grace was a necessary and sufficient condition for salvation Molina gave humans a stronger hand in the process. To do this without diminishing Divine omniscience, he attributed to God a certain kind of knowledge about people that is called ‘middle knowledge’; thus it was suggested that God has several kinds of knowledge.

Molinism describes three types of Divine knowledge. The first and third types are firm Divine knowledges, providing a kind of sandwich for middle knowledge. The first type of God’s knowledge is necessary truths, or natural knowledge (*simplex intelligentia*). These are apparently somewhat like the rules of logic. For example, both X and not-X cannot be true, or $1 + 2 = 3$. These knowledges are considered to be independent of God. Because of this independence, these knowledges place constraints on the kind of things God can do in regard to His creation. Such knowledge is sometimes called ‘prevolitional’ because it exists before (logically before) any possible Divine choice to create. The third type of knowledge, the other side of the sandwich, is God’s free knowledge (*scientia visionis*) of what He chooses in the way of creations, and even His choice of creatures. This knowledge is called ‘postvolitional’ because it depends on God’s choices. (The categories of ‘natural’ and ‘free’ knowledges are due to Aquinas.)

Between these categories Molinism inserts ‘middle’ knowledge (*scientia media*). Middle knowledge is simply Divine knowledge of all the outcomes of all the conditionals: “If *p* then *q*.” (These are sometimes referred to as ‘counterfactuals’ with a meaning that is shaded toward ‘things that might have happened but did not.’) Human choice is exercised in this realm. God knows the outcome of all possible logical implications (choices), and yet the choices made are really free. Choices made by people really do affect the world and activities in that world. A typical scriptural support for middle knowledge is the oft quoted verse in Matthew 11:23. “And you, Capernaum, which art exalted unto heaven, shall be brought down to hell:

for if the mighty works done in thee had been done in Sodom, it would have remained until this day.”

According to Molinism there is, then, a *logical* (but not in time) order of the events of creation. God’s knowledge of necessary truths is the foundation of the process. Next in logical priority is God’s knowledge of counterfactuals or all possible contingencies. Following logically from here, is the *use* of counterfactuals in creation of the world. Finally God’s free knowledge allows him to create a world that will progress toward Divine purposes, such as the creation of a heaven from the human race.

The place of human freedom is enhanced by allowing people to have free choices that are meaningful, yet because of Divine middle knowledge, God may act providentially to create circumstances in which people will tend to make the choice for good, the choice that will lead toward an ontology that suits God’s purposes. In this way several key theological goals are achieved. Divine omniscience is preserved, God is not responsible for evil, grace becomes possible for all, and the actions of Providence are somewhat explained.

Modern supporters of Molinism include William Lane Craig²⁷ and Alvin Plantinga. Yet, we must note that Molinism and its variants do have Thomistic critics in the Catholic Church as well as secular detractors.²⁸ Nevertheless, Molinism does seem to be an appealing compromise that maintains a plausible balance between human freedom and Divine omniscience in the tradition of ‘weak’ omniscience.

A more extreme version, Process Theology, goes somewhat further in supporting the role of free will, contributing to what might be called the ‘slightly weaker still’ view of omniscience. Process theology has its origins in the work of Alfred North Whitehead (1861–1947) with further development by Charles Hartshorne, Richard Rice,²⁹ and Nelson Pike. Briefly stated, process theology says that people are only free, really free, when nobody, not even God, knows how things are going to turn out. God experiences an unfolding and dynamic creation rather than omnisciently envisioning, from the beginning, a static world. God takes risks with His creation. On the other hand, “God’s infinite capacity to work for good provides a basis for confidence that His ultimate objectives for the world and for those who trust Him will finally be realized. If God can work for good in every situation, then He can use every development to promote

His purposes.”³⁰ Thus, Providence attempts to work with individual people toward a good, but yet to be determined *in time*, state. Similarly, Providence works with collective humanity to achieve overall Divine goals.

2. Timelessness, Part A

Middle knowledge, a position that provides a sense of compatibility between free choice and Divine omniscience, is in the general category of ‘weak’ omniscience. The other usual resolution of incompatibility lies with the unique nature of God with time or eternity. Judging from the history of this question this possible resolution will appear to be familiar, and fits in the general category of ‘strong’ omniscience. However, as we will see in the final section, timelessness can also incorporate the “if-then” aspect of weak omniscience. We review several versions of timelessness, both historical and contemporary.³¹

Perhaps the first timelessness argument is due to the Roman Christian philosopher, Anicius Manlius Severinus Boethius (480–524). Boethius addressed the question somewhat along the lines of our discussion on the logic of incompatibility argument. The first premise—that yesterday God infallibly believed a certain thing—is false, according to Boethius. The ‘yesterday’ part is irrelevant since God is not in time, has no temporal properties, so God’s beliefs do not occur in time. All temporal events are before the mind of God. Thus the ‘necessity’ of the past as used in the incompatibility argument of section II.3. is no longer valid. Yet one must not think of all temporal events as being present before God at a single temporal instant since God is outside of time in eternity.³² Thus God’s knowledge is descriptive as opposed to prescriptive. The emphasis is not, therefore, upon God’s preordained gift of grace to the elect, but rather on God’s omniscience as a static and eternal thing. However, there is still a strong flavor of fatalism to this possible solution.

Thomas Aquinas compared God’s presence to being at the center of a circle and the events in time occur at the perimeter. Thus God sees all from the center.

But there is a problem with how temporal events are seen in God's 'eternal' view. What is the connection between eternal present and temporal activity? Boethius shied away from saying that human events are contained in God's eternity. "Rather, temporal events are known by eternal knowledge *as if* they were eternal. Thus, Boethius sees creaturely events as dynamic and exclusively temporal."³³ On the other hand Anselm of Canterbury (1033–1109) put temporal events inside eternity. "Eternity has its own "simultaneity" *wherein exist* all things that occur at the same time and place, and that occur at different times and places."³⁴

The Swedenborgian 'strong' omniscience position also utilizes timelessness, in the sense of God seeing all temporal events, past, present and future in His 'eternal' and timeless present.

It is because God is non-temporally in all time that in His Word the present tense is used in speaking of the past and the future, as in Isaiah, 'A child is born for us, a Son is given, whose name is Hero, the Prince of peace. Isa. 9:6. . . . God is everywhere present throughout the world, yet nothing . . . spatial or temporal, is present in Him. . . . (TCR 30)

To continue this discussion we need to sharpen our ideas of space and time, and therefore we now introduce some ideas from the modern physics of relativity. Clearly, Swedenborg and other classical thinkers did not have the benefits of Einstein's 1905 theory of relativity and therefore it may be possible to provide some further insight into the nature of concepts such as past, present, and future, and simultaneity. We note that the term 'theory' as applied to Einstein's theory of relativity does not mean that the ideas are speculative or unsubstantiated. Indeed the reality of relativity theory has been demonstrated abundantly in the behavior of elementary particles at high energies, and most dramatically, in the testing and use of nuclear weapons of mass destruction. We only use the word 'theory' because such usage is traditional in this context. One should really speak of the 'laws' of relativity, for they are just as certain as the laws of gravity that predict the fall of apples from the tree.

V. TIME AND KNOWING

Einstein's special theory of relativity provides a model which may, by analogy, give some insight or at least some sympathy with the notion that God, through His omnipresence, may be strongly omniscient.³⁵ Explanation of the model requires some elementary mathematics and therefore we attempt to guide the reader through the necessary technical details. Perseverance will, we hope, be rewarded with a much enhanced understanding.

There are two axioms on which special relativity is founded: a) that the speed of light, c , is observed as constant in all inertial frames of reference, and b) that the laws of physics have the same general mathematical form in all inertial frames of reference. What do these axioms mean?

The effects of special relativity are most pronounced for objects that are traveling near the speed of light. In ordinary life we do not observe relativistic effects because the speeds that objects, such as automobiles and airplanes, exhibit are miniscule compared to the speed of light—about 186,000 miles per second. Therefore we expect that relativity will predict phenomena for which we have no prior experience and, consequently, for which we have poorly developed intuition. (The most familiar example of applied relativity theory is the conversion of mass to energy as it occurs in the sun or a nuclear bomb.)

One of the most important consequences of the finite speed of light is that information also cannot travel faster than the speed of light. That is, in the physical world, information about a physical system can propagate no faster than the fastest carrier of information—light. This is true of any physical interaction, be it electromagnetism, gravity, or nuclear forces. As humans living in the usual context of a much slower world our intuition finds this limitation counter intuitive. Nevertheless, it is real and the fact of finite speed of information transmission has implications for our discussion. For example, if a solar flare occurs we, on earth, do not see that flare until about eight minutes after its happening on the sun. The information of the flare's occurrence takes eight minutes to reach the earth. Further-

more, there is often a causal relationship between increased cosmic ray detection at the earth and solar activity on the sun. Because of the eight minute delay in information travel, we know that enhanced cosmic ray detection at earth can only be due to a particular solar flare if that flare occurred eight minutes earlier, as measured by the clock of an observer at rest in the solar system. If a smaller time interval is measured then there is no causal relationship between a given flare and the cosmic ray activity. Thus, causal relationships involve finite time lags because of the finite speed of light.

Increased intuition about the effect of the finite speed of light may be developed through the geometric construction of a *space-time* diagram. In a typical geometric representation of *space* we draw three mutually perpendicular axes and then locate an object at a given position by specifying the coordinates of the location as an ordered triplet of numbers (x,y,z) . In relativity, the geometric representation consists of *four* mutually perpendicular axes. A given space-time 'position' is represented by coordinates (x,y,z,ct) . (The use of ct for the time axis converts the units of the time axis to spatial units, although this practice is not uniformly followed.) Figure 1 illustrates a typical space-time diagram. Ideally, space-time would be represented by four coordinate axes, but on the two dimensional paper we settle for one space dimension x and one time dimension ct . Thus we have one space and one time dimension combined in a two-dimensional figure. The origin of the coordinates represents the 'here', in space, and the 'now', in time. The diagonal lines bound the possibilities for the future (and the past.) That is, since nothing travels faster than light, and the diagonals represent how light can propagate from the origin, then future motion of any finite mass particle is constrained to lie inside the cone formed by the two diagonals because it necessarily travels slower than light speed. (If a second spatial axis is added then the past and future regions form cones. Because the boundaries of possible past and future are shaped like a cone, the figure is called a *light cone*.)

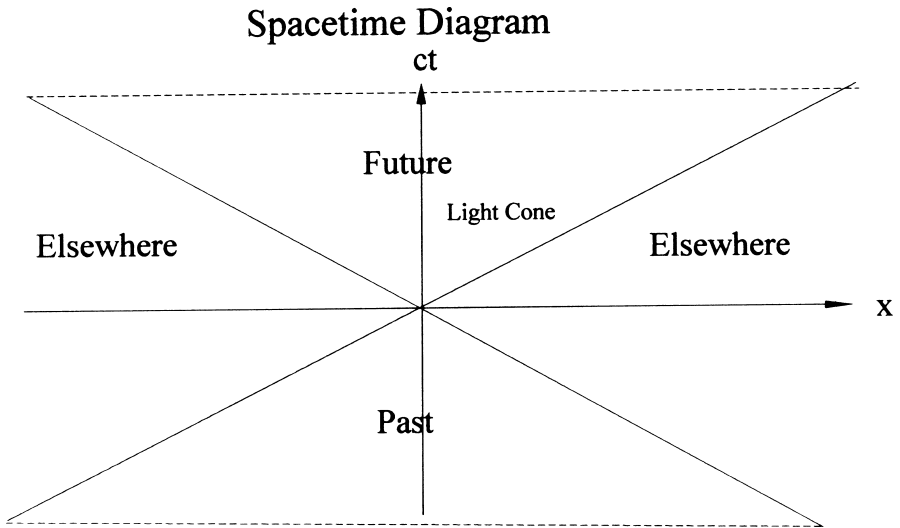


Figure1. A typical space-time diagram showing future, past, and elsewhere. Because the drawing is made on a two dimensional surface only one space and one time dimension are shown.

The past motion of the particle, which brought it to the present at the origin of the coordinate system, is constrained to the lower inside part of the cone. All other regions are forbidden to this particle. A different 'now' for another particle would result in another space-time diagram whose origin is shifted along the x -axis relative to that of the first particle. Figure 2 illustrates this condition and shows a small region of 'elsewhere' for both particles in which they could never come together. Their nearest time of coming together is at the time corresponding to the intersection of their respective light cones. If each particle was a human observer the 'elsewhere' region illustrates a region of time during which they could not communicate, even with light beams.

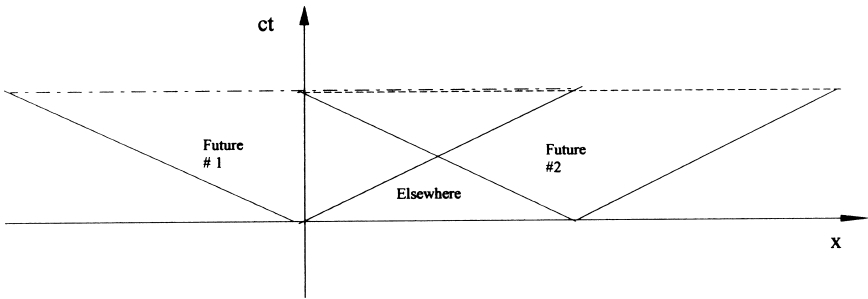


Figure 2. A pair of light cones displaced relative to each other along the x-axis. The space-time region 'elsewhere' where they do not overlap is not accessible to either observer.

To illustrate, consider the fact that a person in China and a person in the United States are several thousand miles apart and it therefore requires more than 100 milliseconds for information to travel between them. Thus, the space-time diagram illustrates more vividly what we already know from the common experience of seeing a slight delay in television transmission from the other side of Earth.

An important idea in this discussion is that of inertial frames of reference. In ordinary conversation a frame of reference is a point of view from which one makes observations. This is similar to the scientific usage. A frame of reference is a platform from which one makes observations in space and time. An inertial frame of reference is one that is traveling with a constant velocity. Therefore two cars traveling on a highway at different constant speeds form two inertial frames of reference relative to, perhaps, the earth.³⁶ In a baseball game, a runner moving with a constant speed forms one inertial frame whereas the fielder observes the runner from his own different inertial frame. Relative to each other they are traveling with equal and opposite velocities. The fielder and the runner will see events in the game happening differently, but to each player the game still appears to be behaving according to the laws of physics. This is what is meant by the second axiom which states that the laws of physics are the same for all

observers in inertial frames. Note that this does not mean each observer will see the same data for position, time, and speed of motion. It only means that each observer will sense that the underlying laws governing motion are the same for each observer. Thus the runner and the fielder will each see a thrown ball from, for example, the catcher to the first baseman as having different velocities, but they will both understand that the laws of dynamics governing the motion are independent of a particular frame.

At low relative speeds of frames of reference, time and time intervals as measured in one frame are the same as those measured in another inertial frame. But one consequence of the finiteness of the speed of light, and therefore the finiteness of the speed of information transmission, is that if frames are traveling at high relative speeds then time and time intervals are *not the same* as measured in the two inertial frames. Let us consider the differences. We first examine the low speed case and then discuss the case where the relative speed of the frames is comparable to the speed of light.

Suppose that two frames are traveling at low speed u relative to each other. Let one frame be denoted as S and the other as S' . Similarly position, time, and speed in S and S' will be denoted as unprimed and primed quantities respectively. Measurements made in S' may be denoted as x' , t' , and v' whereas measurements of the same quantities made in S may be denoted as x , t , and v . At low speeds, if a measurement of a certain event given by the primed coordinates is made in S' , then to the person in S the event will appear to have coordinates given by the following transformational equations.

$$x = x' + ut'$$

$$t = t'$$

$$v = v' + u$$

(For simplicity we again assume a one dimensional world with only the one position coordinate, x .) We see that observed velocity from one frame to another frame changes by adding or subtracting the relative speed of

the frames, as in the third equation. Think about the baseball players in order to see that this is the expected result.

In 1905,³⁷ Einstein showed us that the case was quite different at speeds comparable to that of light and therefore a more general form of these transformations is required. For position and time these are

$$\begin{aligned}x &= \gamma(x' + ut') \\t &= \gamma\left(t' + \frac{ux'}{c^2}\right) \\ \gamma &= 1 / \sqrt{1 - \frac{u^2}{c^2}},\end{aligned}$$

where

is a factor that is about equal to unity for $u \ll c$ and is very large as u approaches c . The increase of γ for increasing speeds is responsible for the increasing mass of high speed objects and the consequent increase in cost of very high energy particle accelerators as these accelerators gain the capability of pushing particles to speeds that are ever closer to the speed of light. Such accelerators are found at the Fermi National Accelerator Laboratory in Illinois or at the CERN facility in Europe. For historical reasons these equations are called the Lorentz transformations.

What are the geometric consequences of these transformations for the space-time diagram? One consequence is that the measurements of position *and* time of an event in a frame of reference for one observer will be different from that of another observer in another frame of reference.

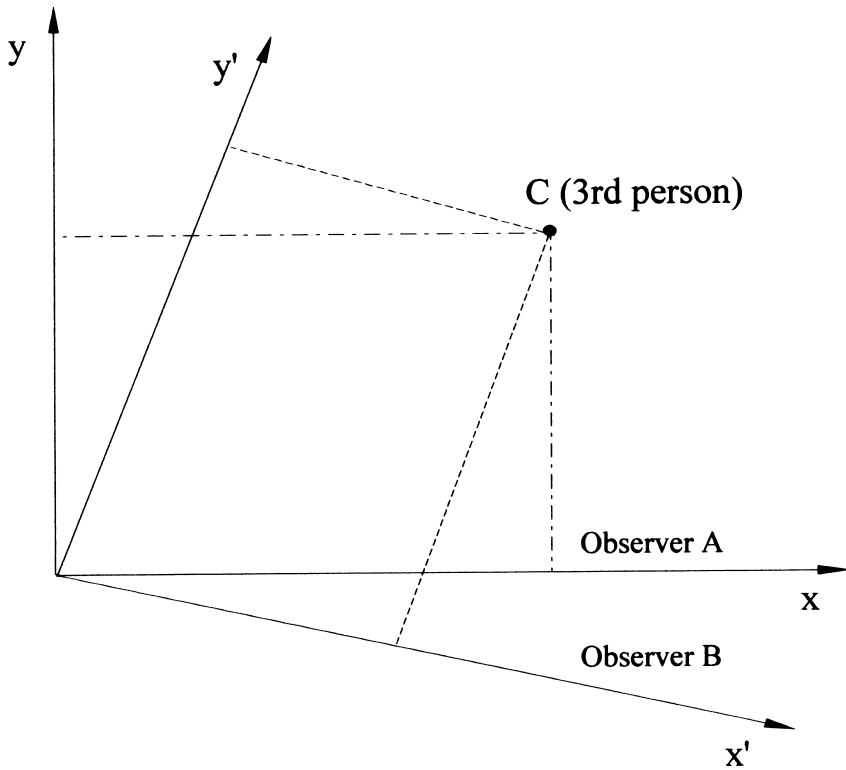


Figure 3. Observers facing in directions that differ by 22.5 degrees. Each observer then has her own frame of reference rotated relative to that of the other observer.

We can see how this might work with a simple *non-relativistic* example in a *two* dimensional spatial world. Suppose observer A, who measures coordinates (x,y) , is facing north and observer B, who measures coordinates (x',y') is facing north-north-east. Furthermore, each observer sees her y -axis as being the direction defined by her nose and her x -axis as being the perpendicular direction defined by her right arm being out-stretched from the side of her body. Then any position occupied by a third person has two sets of coordinates defined by (x,y) and (x',y') in the frames of reference of observers A and B, respectively. Figure 3 illustrates the two sets of frames of reference as being rotated by 22.5° relative to each other. Lines drawn perpendicular from the axes show how the location of the third person is found from measurements made from the two frames of reference.³⁸

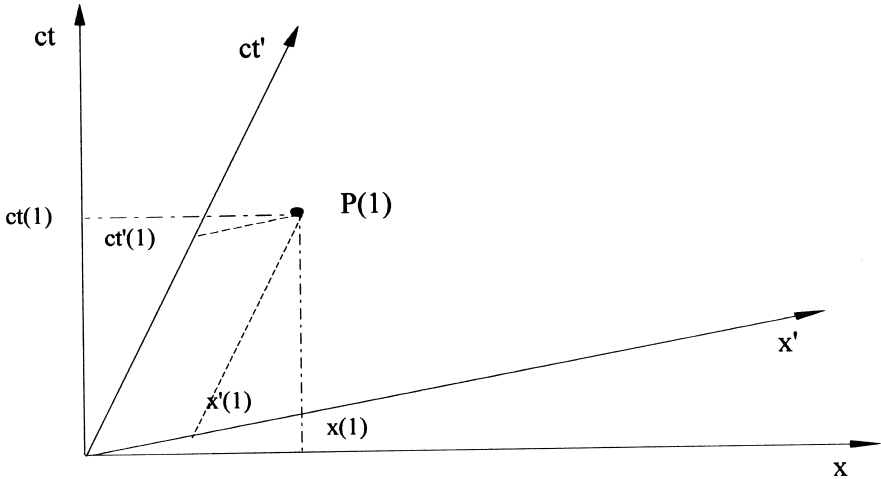


Figure 4. The space-time transformation between two observers traveling at some relative high speed is less intuitively obvious than that of the two observers whose relative orientation was simply a rotational difference as in Figure 3. From the view of the unprimed frame an event at rest in the other frame appears strange and yet this appearance reflects the geometry of the Lorentz transformations.

A space-time transformation, is less intuitive than a simple rotation transformation. But the same general mathematical idea applies. Figure 4 shows the space-time relativistic case analogous to the space-only non-relativistic case in Figure 3. It is a pictorial representation of the Lorentz transformations. The unprimed space-time coordinates are those measured by the artist, Sam, for the figure. The primed coordinates are those attributed, by the artist Sam, to an observer Sue traveling in a high speed rocket relative to Sam's unprimed frame. Thus the unprimed axes seem to have a 'normal' appearance whereas the primed coordinates no longer have mutually perpendicular space and time axes. This is a striking departure from the appearance of Figure 3. While the simple rotation of two dimensional spatial coordinates shown in Figure 3 seems to make sense, the coordinate transformation of space-time in Figure 4 is counter-intuitive.

These geometric transformations are a result of working with the Lorentz transformation equations to arrive at

$$x' = \gamma(x - ut)$$

$$t' = \gamma\left(t - \frac{ux}{c^2}\right)$$

which are the just the inverse transformations of the equations given above. The coordinates and lines going to point P in Figure 4 illustrate how distance and time are calculated by the observers in the different frames of reference. (Technically, the coordinate transformation of Figure 3 involves circular or trigonometric functions, whereas the coordinate transformation of Figure 4 use hyperbolic functions.)

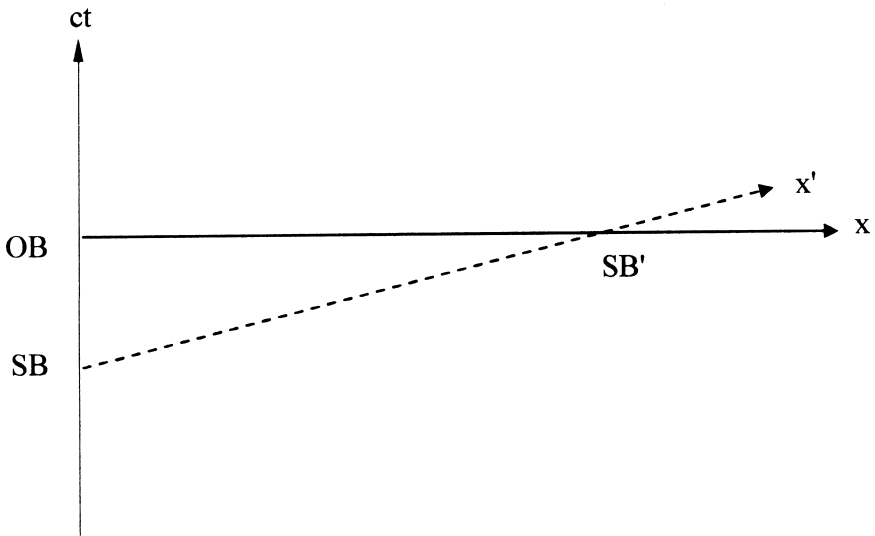


Figure 5. Sam's frame is the solid line structure. Sue's final spatial coordinate as seen by Sam is the dashed line along which $t' = \text{constant}$.

This unusual geometry has many implications, but we need only consider one idea for this discussion. Consider two events that happen in the unprimed frame for observer Sam. One event, the opening of a newly constructed building at the present time, will be denoted as OB (open building) and let us suppose this event's coordinates are $x=0$ and $t=0$, the

here and *now* in the unprimed (Sam) frame. This event is at the origin of the coordinates in Figure 5. Now let us consider the previous event, namely the start of the construction of the building, an event to which we give coordinates $x=0$ (again) and $t = -2$ years, for example, and denote this event as SB (start building). This event is marked by a lower place on the t axis of the space time diagram. Thus one event is in Sam's past and one is in his present. The spatial coordinate for both events in Sam's frame is $x=0$, since the building does not move in his frame. Now consider an observer Sue sitting in Sam's frame some distance from Sam along the x -axis on which $t=0$. Suppose that Sue suddenly moves quickly and therefore becomes part of the dotted primed frame, traveling relative to Sam such that her dotted diagonal space line of constant time t' cuts the x and t axes of Sam's frame. Thus Sue has changed coordinate systems and her 'now' is along the *angled* t' axis. We note that her speed is fast enough that this line passes through the event SB'. From this construction we infer, quite dramatically, that while Sam believes the event SB to have occurred in his past, Sue now sees the event SB to have occurred in her present. Thus Sam's *past* is somehow in Sue's *present*. Furthermore, by reversing the direction of S' one could have events that are in Sam's *future* occur in Sue's present.

This apparent commingling of various past, present, and future events leads to the following question. Could Sue somehow tell Sam that the building would be successfully erected? In the physical world, the answer is negative since there is not sufficient time for a signal to pass from Sue to Sam with the information. Sue is really located in Sam's *elsewhere* and vice-versa. Sue cannot communicate anything to Sam about his future that would allow him to change that future. Yet, in a certain way, Sue knows Sam's future. It is intriguing to consider that in some sense one person's past can be another person's present, or that one person's future can be another person's present, even if such persons cannot communicate with each other.

There is one final notion we should comment on: simultaneity. In pre-1905 thinking spatially separated events could be simultaneous even if viewed from different inertial frames. For example, anyone might look at the night sky and think that his or her view represents a simultaneous and universal snapshot of the universe. Thus one could intelligently speak of a universal past, or present, or future. Events in many different frames

could still be considered to be simultaneous.³⁹ But post-1905 we realize that simultaneity needs a more careful definition and simultaneity becomes a much more limited happening. In modern relativity, two contiguous events occurring at the same time are said to be simultaneous *in any frame*, whereas two spatially separated events are said to be simultaneous *in a given frame* only if their times of occurrence are the same *as measured in that single frame*. That is, spatial separation destroys the notion of simultaneity for all observers. In general, simultaneity is observer dependent.

VI. A MODERN RESOLUTION

1. Timelessness, Part B

What have we learned from this brief and partial summary of modern relativity theory that applies to our problem? For one thing, we have learned that the speed of information flow, in this world, is limited. This has two important consequences. First, there are a lot of things (events) that we cannot know. That is, each of us has a huge part of our space-time world that is *elsewhere*. For example, it is impossible for me (in North America) to know what *anyone* in China is doing *at this exact moment*. Second, we have learned that because of these segments of ignorance (elsewhere) there is some sense in which one observer may see a future that is yet to be realized in another observer's frame. This is a very odd phenomenon, but all other testable predictions of relativity have come true, so there is no reason not to think this one is not true also. Of course, because of the involvement of 'elsewhere' this prediction cannot be tested scientifically, so we can never be certain. But it is the prediction of a proven scientific theory.⁴⁰

In some ways, the fact that the future already 'exists' somewhere (elsewhere) is a disturbing notion as it points toward a negation of free will. Yet one gets a different sense if we imagine that each of us is created in our very own space-time universe and that those people in other, momentarily 'elsewhere', universes do not describe or see our universe, and are certainly not causally associated with our universe.⁴¹ We are free in our own universes and God interacts with each of our separate universes.

A further way to enforce free choice is, as Russell Stannard suggests, to note that we have been discussing *physical* time, and perhaps physical time is not so important to our sense of free choice. Rather, our personal sense of past, present, and future comes from *relational* or psychological time.⁴² This latter kind of time is what happens in our minds, as we connect events together. It gives us current placement in the streaming history of our lives. Relational time also gives us the sense of time's asymmetry. We remember the past, but only approximately predict the future.

Drawing on these last results and the modern notion of simultaneity, we now see that there is no universal 'present' in the natural world. There is no observer that can legitimately claim to see the 'present' everywhere. Time is not stagnant, but ". . . one may claim that actualizations of events are relative to frames of reference."⁴³ Therefore in the timelessness scenario God must see a unique 'present' for every individual. Clearly this concept reinforces the idea that the eternal view of God has a discretely different character than the temporal view of humankind. ". . . the fact that the future is in some sense already out there, does lend plausibility to the idea that an Intelligence operating in some altogether different way to ourselves could have access to it."⁴⁴ With this perspective of the human condition in mind, let us now look more closely at the question of God's sight of the 'eternal present'.

2. God's eternal present

Swedenborg writes, "The infinity of God...as predicated of time is called eternity . . . and His eternity is totally devoid of time." ". . . because the Divine from eternity, does not involve the existence of days, years, and centuries . . . these are to God a single instant . . ." (TCR 31). How might this be a single instant and what does the word 'instant' mean here? In the same paragraph and elsewhere Swedenborg states that the only way to get some idea of eternity is to remove time from one's thinking. Perhaps so, but having come this far with relativity, there might be further insight obtained by a bit of speculation that is consistent with relativity.

In the work *Heaven and Hell*, Swedenborg describes many characteristics of the spiritual world. Swedenborgians are familiar with the idea that time does not exist (in the physical sense) in the spiritual world but that

there are successive progressions of spiritual states. (HH 163) This mental 'time' somewhat corresponds to our relational or psychological time. Similarly, in the spiritual world there is again no space but only differences of state of each individual (HH 192). Furthermore, spiritual individuals travel from 'place' to 'place' according to their desire to be with another who is in a different state. Most interestingly, the 'speed' at which this occurs depends upon the *strength* of this desire. ". . . he arrives more quickly when he eagerly desires it, and less quickly when he does not . . ." (HH 195).

Putting these ideas together we might then consider the speed of information flow in God's view. For mortals in the physical world that speed is the finite speed of light. For spiritual beings that speed seems variable. For God with His *infinite* love or *infinite* desire to communicate with and providentially work with people in both natural and spiritual worlds, one might infer that the speed of information flow (influx) could be *infinite*. This suggestion has enormous implications in relativity theory.

In relativity theory, the consequence of there being an infinite speed of information flow is that 'elsewhere' completely disappears. The geometric light cone flattens out to become a plane and 'elsewhere' no longer has any part of space-time. There is no 'elsewhere' for God. Thus, in the Divine view, *all* space-time is accessible. Therefore, the primary suggestion of this section is the following. *For God, all information flows infinitely fast, and consequently all is seen in the Divine 'present'*. In this way, we are provided with a mechanism as to how all of human drama, past, present, and future, is seen in the Divine 'present'. We have arrived at some idea of how 'strong' omniscience might work, preserving human free choice, yet making all information available in the Divine 'present'. Such a mechanism is consistent with modern relativity and a single reasonable speculation about the flow of information to and from God.⁴⁵ (This same model also provides an explanation for Divine omnipresence. Because of the infinite speed of Divine information flow, all of space-time (and thus all of space) is immediately accessible to God.)

Does this discussion negate the idea of 'weak' omniscience? We recall that weak omniscience held that God saw all possibilities and then accommodated His providential care to meet the result of human free choice through the use of conditionals or counterfactuals. Weak omniscience is

somewhat like the middle way, which we described above. Accordingly, while creating a world directed toward His purposes, God's actions in providence are conditioned by human free choices to which he responds instantaneously in the 'moment' that is His eternity. Even though formulated in His eternal present, God's responses are manifested at various temporal moments in the various space-time frames of human beings. Thus, it seems that our discussion of information flow can also accommodate some version of the middle way or 'weak' omniscience.

3. Conclusion

We see that both 'strong' and 'weak' omniscience can be supported by the relativity model. In this model the intellectual distance between both views seems to shrink. Relativity theory and a reasonable speculation about an infinitely fast information flow in God's sight are sufficient to protect the dual notion that even though God sees all in his eternal present, He can still respond, through his omniscience of conditionals, to essential free human choice. The terms 'weak' and 'strong' omniscience may no longer be necessary. Freedom and omniscience are both preserved in either scenario.

We will probably never fully understand the mysterious workings of the interaction of God and His people. That there are still mysteries of faith is important to our sense of awe and majesty at the Divine ability to both create on the grand scale and redeem on the individual level: Divine transcendence and Divine immanence. Nevertheless, we hope this discussion has somewhat forwarded the human discussion of one such mystery—the relationship between Divine omniscience and human free choice. □

ENDNOTES

1. The author perused the index of *New Church Life* (a primary Swedenborgian journal) since 1900 and found a flurry of activity on this subject during the 1920s and then less activity in the 1950s and 1980s. The author admits to not doing an exhaustive study of other Swedenborgian journals and therefore apologizes in advance to those whose work in this area may have been slighted.

2. Much of Swedenborg's theology is revolutionary, especially for example, the doctrine that the purpose of Christ's advent was to restore human free choice as opposed to the contemporary Christian doctrine that Christ's advent and crucifixion were to propitiate the Father's anger over the sins of humankind. On the other hand Swedenborg's theology is given in the context of the 18th century intellectual milieu and the solution to the incompatibility problem suggested in his Writings is not that different from some that were extant.

3. Willard F. Enteman, in *The Problem of Free Will: selected readings* edited by Willard Enteman (New York: Charles Scribner's Sons, 1967), 298.

4. Clifford Barrett, *Philosophy* (New York: Macmillan, 1935), 245–248.

5. *Ibid.*, 247.

6. *Ibid.*, 248.

7. W.C. Stace, in *The Problem of Free Will: selected readings* edited by Willard Enteman (New York: Charles Scribner's Sons, 1967), 76.

8. By attributing human free choice in spiritual matters as a foundational characteristic, Swedenborg has shown that the existence of evil is not due to God, but due to bad choices made by humankind. Those who err too much toward a dominance of Divine omniscience, in relationship to human free will, risk an intellectual position that attributes the existence of evil to God.

Free choice in spiritual matters is constrained by certain lacks in human knowledge of spiritual matters. Such areas include limitations to spiritual self-knowledge, limitations to knowledge of the spiritual world, and limitations to knowledge of the activity of Divine providence. For a discussion of these issues together with possible corresponding limitations in scientific knowledges, see chapter 9 of my *Religion and Science* (New York: Solomon Press, 1992).

9. *Encyclopedia of Science and Religion*, editor in chief, J. Wentzel Vrede van Huyssteen (New York: MacMillan reference, 2003), 629.

10. William Lane Craig, *The Only Wise God* (Eugene, OR: Wipf and Stock Publishers, 2000), 27–37.

11. To a physicist, both quotes are reminiscent of a famous observation in the history of physics. In the classical study of the interference of light with a material object, such as a diffraction grating, Christian Huygens (1629–1695), famous inventor of the pendulum clock, postulated that each point on a wave front (of light) is assumed to act as the source of a secondary wave that spreads in all directions. This proposition can be used to mathematically derive a very good approximation to the actual intensity pattern of a diffracted light beam on a distant screen. Now, the connection with our study is that one can imagine, at least conceptually, making the calculation at each point in the beam as it travels to the distant screen. Analogously, one thinks of God readjusting the future of a spiritually free individual every time the individual makes a free choice. However, the correspondence may not be valid, for the outcome at the screen is completely *pre-determined* by the initial light source and the geometry of the diffraction grating. No change occurs in the physics because a calculating observer chooses to make computations along the beam path.

HUMAN FREE CHOICE AND DIVINE OMNISCIENCE

In both the quote from *Arcana Coelestia* 3854:3 and *Divine Providence* 202:3 there is reference to “new beginning” or “the things that follow” respectively. Presumably these new things refer to human events and possibilities rather than changes in God’s ultimate plan. But then the question may arise as to the amount of detail in God’s ultimate plan.

12. I am indebted to the Rev. N. Bruce Rogers for these quotations and for his articulation of what I term ‘weak’ omniscience: the idea that God sees all possibilities in all circumstances, rather than a fixed future. My informal poll of Swedenborgian clergy suggests that Rogers’ position is likely a minority one. Most hold the ‘strong’ omniscience position of a Divinely and precisely known future happening in an ‘eternal’ Divine ‘present’.

13. This section is provided to give some flavor, but not a complete discussion, of the philosopher’s approach to our topic. Since this brief treatment is a bit tangential to the proposed tentative solution, it may be omitted without serious loss of continuity.

14. Examples of those who, in recent decades have examined the dilemma philosophically include William Lane Craig, John C. Moskop, Michael D. Robinson, Richard Swinburne, Linda Zagzebski, Alvin Plantinga and Charles Hartshorne, to name a few.

15. See chapter 1 of *Eternity and Freedom*, Michael D. Robinson (Lanham MD: University Press of America, 1995).

16. Alfred Acton, “Divine Government and Human Freedom of Choice,” *New Church Life* (1928): 533–563. Acton provides a helpful summary of historical thought on pp. 536–540.

17. Quoted in *Encyclopedia of Religion*, 2nd edition, ed. Lindsay Jones (Farmington Hills, MI: Thomas Gale, 2005), 3202.

18. For specific references, see William Lane Craig, *The only wise God* (Eugene, OR: Wipf and Stock publishers, 2000), 32–34. Interestingly, Craig does not indicate use of this word in the Gospels themselves.

19. *Encyclopedic Dictionary of Religion* (Washington DC: Corpus Publication, 1979), 1407.

20. Augustine, *The City of God*, in *The Great Books of the Western World*, Vol.18, ed. R. M. Hutchins (Chicago: Encyclopedia Britannica, Inc., 1952), 216.

21. Quoted in ref. 17, 3207.

22. Aquina, *Summa Theologica*, in *The Great Books of the Western World*, Vol. 20, ed. R.M. Hutchins (Chicago: Encyclopedia Britannica, Inc., 1952), 343.

23. From Calvin’s *Theological Treatises* as quoted in *The Problem of Free Will*, ed. Willard F. Enteman (New York: Charles Scribner’s Sons, 1967), 86.

24. This section on Arminianism is abstracted from Donna M. Campbell, “Forms of Puritan Rhetoric: The Jeremiad and the Conversion narrative.” *Literary Movements*. 05/21/2007 Accessed 07/25/2007. <<http://www.wsu.edu/~campbelld/amlit/jeremiad.htm>>

25. See *Luther and Erasmus: Free Will and Salvation*, ed. E. Gordon Rupp and Philip S. Watson (Philadelphia: Westminster Press, 1969).

26. This section is a certainly a condensed and simplified version of both historical and current philosophical efforts to resolve the apparent conflict.

27. Chapters 11 and 12 of Ref. 10 give current objections to the middle way and replies to these objections.

28. In this connection see entries in the online *Stanford Encyclopedia of Philosophy* under “Foreknowledge and Free Will” by Linda Zagzebski, and the *Catholic Encyclopedia* under “Free Will.” Also see her book, *The Dilemma of Freedom and Foreknowledge* (Oxford: Oxford University Press, 1991) for a rigorous philosophical discussion and possible solutions to the dilemma.

29. See, for example, Richard Rice, *God's foreknowledge and Man's free will* (Minneapolis: Bethany House Pub., 1985).

30. *Ibid.*, 105.

31. Much of the discussion in this section rests upon a book by the Christian philosopher and theologian, Michael D. Robinson cited in ref. 15.

32. This argument follows the description in reference 28.

33. P. 43 ref. 15.

34. Quoted from Anselm's *De Concordia* in ref. 15, 43.

35. This model is inspired by similar ideas by Russell Stannard (see chapter 2 of *Evidence of Purpose* edited by John M. Templeton, NY: Continuum, 1994) and, in a non-religious context, by Brian Greene (see *The Fabric of the Cosmos*, NY: Knopf, 2004).

36. The earth surface is really not an inertial frame as it actually accelerates by rotating about its pole. Furthermore, the earth orbits the sun, the sun orbits the center of the Milky Way, and so on. Nevertheless in our low speed example it approximates an inertial frame of reference.

37. A. Einstein, "On the electrodynamics of moving bodies," *Ann. Physik* 17 (1905): 891–921.

38. For the quantitative minded, the relationship between the coordinates (x',y') and (x,y) is

$$x' = x \cos \theta - y \sin \theta \quad \text{and} \quad y' = x \sin \theta + y \cos \theta \quad \text{where} \quad \theta = 22.5^\circ.$$

39. We now know that the picture of each star that we see is a portrait of that star as taken, at a different time than other stellar objects, because each object is at a different distance. The epoch of the portrait depends on the distance of the star because of the finite speed of light.

40. See both citations in ref. 35 for similar arguments.

41. More precisely, our universe, at that space-time interval, is separate from others by what is called a *space-like* interval.

42. P.C.W. Davies, *The physics of time asymmetry* (London: Surrey U. Press, 1974), 20.

43. Ref. 15, 237.

44. Russell Stannard, "God's purpose in and beyond time," in *Evidence of Purpose*, ed. J. M. Templeton (New York: Continuum, 1994), 34.

45. One may hesitate at looking for an understanding of spiritual ideas such as 'eternal present' with ideas from relativity science as found in the material universe. See, for example, *Divine Love and Wisdom* 69. Yet all things correspond between the natural and spiritual domains. Therefore, even if the suggestion about the flow of information with the Divine seems a bit 'natural' there may exist some spiritual analog. The final section of this paper is offered in that spirit.

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