

# OVERCOMING OBJECTIONS TO SWEDENBORG'S WRITINGS THROUGH THE DEVELOPMENT OF SCIENTIFIC DUALISM<sup>†</sup>

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## INTRODUCTION

The Writings of Swedenborg (1688–1771) have elicited a variety of reactions over the centuries, ranging from making them a basis of a new Christian revelation to considering them the grandiose output of a mere madman and mystic. Recently, Talbot (1997) revisited the long literary history of Swedenborg's alleged insanity, a charge which understandably has offended many New Church intellectuals.<sup>1</sup> The logic and arguments of the Swedenborgian supporters (see Larsen, 1988; Williams-Hogan, 1988) appear far superior, more detailed, and weightier than the meager, insufficient, and contentious speculations of the Swedenborg detractors.

The latest of these insanity charges, which Talbot fully and definitively demonstrates to be *unfounded and untenable*, is a brief note by John Johnson in the *British Journal of Psychiatry* (1994) in which he concludes on the basis of psychohistorical methods (“psychopathography”) that Swedenborg's spiritual experiences were “hallucinations” of “acute schizophrenia or epileptic psychosis.” Similar charges by other psychiatrists are referred to (for example, Maudsley) held together by the unifying idea that Swedenborg had “the conviction that he was the Messiah and the Second Advent of the Lord Jesus Christ.” As Talbot points out, this charge is clearly inaccurate to anyone who reads Swedenborg's writings. Swedenborg never claimed to be the Messiah but rather to worship the Messiah as God-Man and to announce to the world the good news of the Messiah's Second Advent for which he was a witness and revelator in response to a special and unique Divine calling. He always insisted that it was not he, Swedenborg, who was holy or special or infallible, but his given mission, and that people should test the ideas in his writings by their own common sense and rational thinking. He always insisted that people should not believe anything except what their common sense and reasoned thought convince them to be the truth. Thus he always presents the

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<sup>1</sup> The article was reprinted in the January–June, 1998, issue of *The New Philosophy* (vol. CI, nos. 1 & 2) which was devoted to the so-called madness hypothesis in reference to Swedenborg. This 220-page issue consists of nine articles, both original and reprinted, on a range of topics, and is recommended reading for anyone interested in examining in depth the subject of Swedenborg's state of mind.

ideas in the writings as one would present scientific or legal issues in a court of law or legislative body, thus, from a rational perspective with a rational method, and following a rational sequence. The purpose is always to prove logically and common sensically and by analogy, avoiding blind acceptance or persuasion as one ought to avoid the plague.

Perhaps to many psychiatrists it makes no difference whether Swedenborg thought he was the Messiah or whether he thought he was merely announcing the Messiah's Second Coming, with himself as the only earthly witness to it. In both cases modern psychiatry would almost compulsively assign a diagnosis of psychosis. Strengthening this diagnosis, psychiatrists would point to facts acknowledged and commonly accepted by Swedenborgians, such as the following:

- Swedenborg kept a diary of his daily conversations with "spirits" who are inhabitants of the spiritual world after their death in this world.
- Jesus Christ personally appeared to him in a vision on more than on one occasion and directly instructed Swedenborg to write about his experiences with spirits and their relation to the Bible, and to call these writings Sacred Revelations, the Second Coming of Christ, as a means of effecting a new Christian dispensation for the entire future to come.
- As part of this New Christian revelation Swedenborg presents his series of experiences in the spiritual world including the direct communication with spirits who had been born on various planets inside and outside the solar system, and even some episodes that involved actually "seeing through the eyes" of living inhabitants on distant planets, through the mediation of spirits.
- Also as part of this new revelation, Swedenborg includes his extensive conversations with "angels" who are the inhabitants of celestial regions after their departure from planetary life, and who shared with him their knowledge and wisdom about human behavior, about life on planets, about human anatomy, morality, religion, and God.
- Swedenborg reports conversations with well-known historical figures such as Moses, David, Mary, Aristotle, Luther, Newton, as well as contem-

poraries who had just departed including a Swedish king and other acquaintances and family members. In these conversations, Swedenborg reveals new facts about these people, not known from history, such as Newton's recantation and rejection of his concept of vacuum (see below), an idea Swedenborg abhors as irrational. Another: his conversations with Luther (SD 5103) who confesses that an angel appeared to him at the beginning of his attempts to effect a religious schism in Catholic Christianity, warning Luther not to continue pushing his idea that "faith alone saves, not works" because it is a false idea and harmful. But Luther did it anyway because he saw no other way of solidifying the Protestant schism, and then he confessed his regretfulness to Swedenborg.

- Swedenborg's description of the afterlife, or "the spiritual world," is universalized in absolute terms. He offered his extensive writings of more than two dozen volumes, self-published in Neo-Latin at his own expense, as the very Word of God, equal to the Bible, describing himself and his work as "the greatest miracle ever granted by the Lord" in the history of humankind.
- Swedenborg's writings cover both spiritual and natural or scientific revelations.

### SCIENTIFIC REVELATIONS

These include:

- Cosmology, or the origin of the universe, through the "two suns" and their intervening atmospheres, and the methods of its current maintenance by the Laws of Divine Providence and Permissions—see *Divine Love and Wisdom* and *Divine Providence*. Also: the character of evolution of civilizations on planets, such as the fact that our planet is the only one among numerous other inhabited planets that have a mechanized or industrialized society.
- Medical science, including the characteristic functions and origins of some viruses not yet identified in his lifetime—*Spiritual Experiences*, and Blom-Dahl (1996).

- The nature of psychosomatic operations, such as the observation that “anxieties about the future affect the stomach more than the rest of the viscera” (AC 5178).
- The anatomy of brain structures too small to identify with the microscope (see *Economy of the Animal Kingdom*, and *Psychological Transactions* (1743).
- The lack of sensation and thought in the fetus (DLW 405).
- Anthropology and archeology, including many unknown facts about ancient peoples, sacred scriptures, culture, religion, life-span, death rituals, symbols, hieroglyphics, science of correspondences, the nature of unconscious motivation in human affairs, and still others—see *Arcana Coelestia* throughout.
- Psychology and neurophysiology, especially the detailed working of the mind/body interaction, including the unobservable elements and components of brain cells, their respiration, and their initiation of activity through the will and the understanding. Also, the relation between the cerebellum and the affective domain, on the one hand, and on the other, the relation between the cerebral cortex and the cognitive domain. Also included, are many psychological revelations about relationships, marriage, and life’s developmental phases, including language, thought, memory, and reasoning—see *Divine Love and Wisdom*, *Conjugal Love*, and *True Christian Religion*.
- Physics and chemistry, such as the impossibility of a vacuum (see below), or the description of the inner structure of objects in terms of three degrees of discontinuity analogous to the universal law that applies without exception to every single phenomenon, object, process, or functional quality:
  - I) its essence, origin, source, purpose, or first end
  - II) its form, cause, structure, or composition
  - III) its effect, resultant, outcome, or usability.

By way of illustration, we find the following from *Conjugal Love* 329:

After the Chief Teacher and the rest had left me, some boys who also had been in the gymnastic sport followed me home and there, for a time, stood by me while I was writing. And lo, they saw a cockroach running over my paper and asked in surprise, "What is that little creature which runs so fast?" I said, "It is called a cockroach, and I will tell you marvels about it." I then said: "In that living creature, small as it is, there are as many members and viscera as in a camel. It has brains, hearts, pulmonary tubes, organs of sense, of motion, and of generation, a stomach, intestines, and many other things; and each of them is a contexture of fiber, nerves, blood-vessels, muscles, tendons, membranes; and each of these a contexture of things still purer which lie deeply hidden beyond the reach of any eye."

[2] The boys then said that to them this little living thing seemed nothing more than a simple substance. To this I said: "Nevertheless, there are innumerable things within it. I tell you this, that you may know that it is the same in every object which appears before you as a one, a simple, a mite. It is the same also in your actions, affections, and thoughts. I can assure you that every grain of your thought, and every drop of your affection is divisible to infinity, and that so far as your ideas are divisible you are wise. Know then, that everything divided is more and more multiple, and not more and more simple; for when divided again and again, it approaches nearer and nearer to the infinite in which are all things infinitely. **This that I tell you is something new and never before heard of.**"

[3] After I had said this, the boys went from me to the Chief Teacher and asked him if, in the gymnasium, he would at some time propose as a problem something new and unheard of. He asked, "What?" They said: "That everything divided is more and more multiple and not more and more simple, because it approaches nearer and nearer to the Infinite in which are all things infinitely." He promised to propose it, and said: "I see this because I have perceived that a single natural idea is the containant of innumerable spiritual ideas; yea, that a single spiritual idea is the containant of innumerable celestial ideas. Hence the distinction between

celestial wisdom, in which are the angels of the third heaven, and spiritual wisdom in which are the angels of the second heaven; and also between [the latter and] natural wisdom in which are the angels of the ultimate heaven and also men.”

Every object in the natural world, whether planet or gene, exists within these three discontinuous but related planes of existence. This is indeed a major new scientific revelation which could not be discovered merely through observational data, as was also the case with gravity, quantum, the speed of light, and hypothetical or posited particles, all of which were arrived at through calculations and inferences, not direct observation. The new revelation that the cause of an event in “successive degrees” is still “within” the effect in “simultaneous degrees” opens a new era in science, preparing the way for the future dualism. As Swedenborg pointed out, one of the implications of this shift in paradigm is that most of what scientists today call cause-effect relations are actually effect-effect correlations.

To give but one illustration: the *cause* of the car speeding up is not the greater rate of fuel combustion, these two being merely correlations of effects; instead, the *cause* of the car going faster is the *driver’s intention* of going faster. These three are not in a continuous relation: the driver’s intention is in a different plane of the universe than the mechanically built-in relation between gas pedal and combustion engine. In the new paradigm of dualist science, these events, which today are considered separately by physics and psychology, will be integrated into a dualist theory of events that integrates human intentions or functions with physical properties of phenomena. Swedenborg’s dualist science is anthropomorphic, as indicated by these additional scientific revelations:

- The shape of the universe is not spherical but humanoid, as visually witnessed by Swedenborg when, by Divine Providence, he was taken to an outside position to look at it.
- The universe contains *two suns*, that in the spiritual world forming and generating all those in the natural world on a successive basis; further,

after generating them, remaining “within” them on a simultaneous basis, and directing them from that position continuously, synchronously, and ceaselessly.

- Events in the natural universe are totally constricted within limits imposed by events in the spiritual world, the latter being “within” the former as cause is “within” effect in simultaneous degrees of existence.
- Randomness (or chance) and evolutionary patterns such as selection and adaptation, are in reality nonrandom but totally determined by humanoid purposes involving love, good, value, wisdom, morality, truth, justice, usefulness, and their opposites or corruptions. For instance, the variety and evolution of animal forms parallel and are constrained by the variety and hierarchical structure of human affections, emotions, and sentiments. Every species and genus, every homological structure, every biochemical process is constrained by and parallels exactly the taxonomy of the human mind—its affections, thoughts, and sensations built up into selves within cultures through personality and society. Nature is a theater of the spiritual: Swedenborg gives this principle a scientific basis.

### **SPIRITUAL REVELATIONS**

These include:

- the inner structure of the Trinity as three aspects of the one Divine Person known variously as Father, Jehovah, Jesus, Messiah-God
- the developmental phases of the Divine dispensations over history, or the history of churches from the beginning of time to the unending future
- the spiritual meaning of the Bible and the method of correspondences by which this meaning can be extracted, formed into Doctrine that then serves as the basis of one’s regeneration (or preparation for heavenly life)
- the nature of one’s life in heaven or eternity, and in hell, revealed in great detail through his journeys and conversations in the spiritual world



- the methods of regeneration we must follow in order to prepare for heavenly life, how we must live our daily lives in orderly obedience to God *through religion and conscience*. Thus we choose heavenly or hellish life in eternity by our cumulative choices which form our permanent inner character as a spirit.

### HOW SWEDENBORG HAS BEEN PORTRAYED

It is obvious from this brief listing that Swedenborg represents a unique case in the history of writers and that no one has ever come forth to claim what he has claimed and achieved as a scientist and revelator. These amazing claims and treatises would have been totally ignored by Europe's 18th- and 19th-century intelligentsia had they not had solid, incontrovertible internal merit. Here is a partial list of European and American writers who have publicly acknowledged their admiration of Swedenborg's writings not as a madman's psychosis, but as intellectually valuable, convincing, and unique: John Bigelow, William Blake, Robert and Elisabeth Barrett Browning, Thomas Carlyle, Andrew Carnegie, Samuel Coleridge, Ralph Emerson, Benjamin Franklin, Robert Frost, Henry James, the Elder, Carl Jung, Immanuel Kant, Helen Keller, Czeslaw Milosz, James Moffat, John Oberlin, Ezra Pound, Sundar Singh, August Strindberg, Daisetz Suzuki, Henry Thoreau, Alfred R. Wallace, John Wesley, Colin Wilson. (Swedenborg Foundation, 1984)

Not all of these contacts with Swedenborgian thinking were entirely positive (Brock et al., 1988). Although William James edited his father's papers on Swedenborg for posthumous publication, only two or three passing references to Swedenborgianism occur in William James' own works (Taylor, 1997). Contemporary study of Swedenborg's thought is carried out by a small active following that, generation after generation, continues to publish his works and produce updated translations and collateral interpretations (see also Brock et. al., 1988). As Jane Williams-Hogan points out, Swedenborg did not have a personal following like all the other "mystics" who founded new religious groups in the past two centuries. His Writings constitute a *written* revelation and are characterized by the intellectual requirements of such a cultural-religious instru-

ment which she calls “a new form of charisma with its own structure or order and its own pattern of development”:

Charisma must meet us where we are and speak to who we are. In traditional societies, charisma is located in shamans and prophets; in modern societies, I theorize that it appears in text. What to us is extraordinary can be appreciated and responded to when presented in the rational form of the charismatic book.

Rational and critical people must be addressed in rational and critical forms. They need to explore in freedom. That critical intellectual freedom into which we are socialized in this age is most satisfactorily engaged when privately reading text. (Jane Williams-Hogan, 2)

Contemporary encyclopedias generally carry entries on Swedenborg and universally acknowledge his broad intellectual influence. An authoritative catalogue of Swedenborg’s writings lists over 200 titles (Tafel, 1875) and the current complete set of Swedenborg’s works in English contains 57 volumes (Swedenborg Foundation). Most public and academic libraries in the U.S. appear to have one or more books by Swedenborg. In a well known biography of Swedenborg and his writings, Trobridge ends his discussion on “spiritual philosophy” with this conclusion:

The principles that Swedenborg has elucidated have a very wide bearing; they are applicable, indeed, to all the great subjects that have exercised the human mind from time immemorial. A new light is thrown upon all of these problems and a new order is brought into the region of philosophic inquiry. (Trobridge, 1976, 134 )

The entry on Swedenborg in *The New Encyclopedia Britannica* (1993) describes him as a “Swedish scientist, Christian mystic, philosopher, and theologian who wrote voluminously in interpreting the Scriptures as the immediate word of God.” Swedenborg is described as a precursor of key modern concepts involving the structure of the atom, the formation of planets, the nebular theory, and the localization of mental processes in the right and left hemispheres of the brain. *The Encyclopedia of Philosophy* (1967) describes Swedenborg as a “scientist, Biblical scholar, and mystic”

and ties him to rationalists like Descartes, Leibniz, Christian Wolff, Malebranche, and empiricists like Locke. In the classical vein, Swedenborg is dubbed both Aristotelian and Neoplatonic. There is no entry for Swedenborg in the *International Encyclopedia of the Social Sciences* (1968) and in the *Encyclopedia Judaica* (1973).

*The Encyclopedia of Religion* (1987) qualifies Swedenborg as “Swedish scientist and mystic” who “reported on what he had heard and seen in his supernatural experiences.” It mentions Swedenborg’s doctrine of correspondences which was referred to as “a vision of the truth hidden by the confusion of sense data and everyday language” by “many of the greatest poets of Western literature, particularly in the Romantic and Symbolic traditions.” The most extensive entry on Swedenborg was found in *The New Schaff-Herzog Encyclopedia of Religious Knowledge* (1957). This comprehensive article covers Swedenborg’s call to his mission as revelator, his subsequent intromission into the spiritual world while continuing his professional duties as a government mining engineer and legislator, as well as Kant’s concealment of his indebtedness to Swedenborg’s ideas. The article also discusses the sequence and content of Swedenborg’s major works. In contrast to this sympathetic coverage, the *New Catholic Encyclopedia* (1967) ends its brief article on Swedenborg with the suggestion that “his visions were manifestations of a mental disease (paranoia), subconsciously developed to confirm the theories that he had already worked out.” Still, there is the recognition that “his influence, however, has been considerable, affecting particularly the philosophy and literature of the Romantics, and the development of the psychical sciences.” An extensive bibliography of Swedenborg’s writings will be found in Brock et. al., 1988.

The great paradox of Swedenborg is that his writings have had such an enduring and deep influence on American and Western thought, and yet he is not directly cited in the professional literature of science, theology, philosophy, and psychology (Taylor, 1997), despite the fact that well-known mainstream psychologists like William James (through his father, Henry James, Sr.), Gordon Allport, and Henry Murray, were deeply involved with Swedenborg according to Taylor. There undoubtedly exists a reluctance on the part of writers to cite Swedenborg openly. Kirven (1988) and Zwink (1988) have examined the reasons why Kant, Goethe, Schelling,

and writers in the 19th century German Southwest, have avoided direct citations to Swedenborg in their published works, though they have acknowledged his influence in indirect allusions and in private letters or comments to friends.

Famed Zen master Daisetz Suzuki (1996), who translated some of Swedenborg's books into Japanese, attributes Swedenborg's obscurity to the fact that he provides too many details about what he has 'seen and heard' in heaven and hell (cited in Nagashima, 1993). He felt that Swedenborg's theology would be more acceptable to the intelligentsia if he had provided fewer details about life in the afterlife. Famed transcendentalist and theologian Emerson chose Swedenborg as one of his Representative Men in science and history and was deeply influenced by the description of correspondences between natural phenomena in the physical environment and spiritual phenomena in the mind. Despite this Emerson could not get past the simplistic narrative descriptions Swedenborg had of his heavenly travels and conversations with angels. To Emerson's desire for more sophisticated conceptions of the spiritual, Swedenborg's report of childlike quality of angels' wisdom and conceptions was ultimately unbelievable.

Contemporary scientists understandably hesitate to refer to a writer who makes claims such as this, about the origin of his knowledge:

I sacredly attest that I have been intromitted into the Kingdom of God by Messiah Himself, Jesus of Nazareth, and have there spoken with heavenly Genii, with Spirits, with the dead who have risen again, yea with those who called themselves Abraham, Isaac, Jacob, Esau, Rebecca, Moses, Aaron, and the Apostles, especially Paul and James; and this now through a period of eight months . . . (*Adversaria* 475, cited by Potts, Vol. VI, p. 114)

Years later, towards the end of his long career, Swedenborg states that his intromission into dual life is the greatest miracle in human history and has not been granted by God to anyone before. The Lord's purpose for this new revelation is to bring on His long promised Second Advent, a process which is to be accomplished through and in the writings of Swedenborg, the appointed revelator. He writes:

As it has been granted me by the Lord to be in the Spiritual World and in the natural world at the same time, and therefore to speak with Angels as with men . . . for I have spoken with all my relations and friends, and likewise with kings and dukes, as also with learned men, who have met their fate; and this now continually for twenty-seven years, I am able to describe from living experience the states of men after death . . . (TCR 281)

### EVALUATING SWEDENBORG

Talbot (1995) starts with the question of how one knows whether someone is telling the truth or not. Specifically, how do you know that this man Swedenborg was sane or truthful? So he masterfully elaborates the various logical steps we must consider, or conditions that must be met in order for a reasonable person to conclude that Swedenborg was sane and truthful. This argument had to be made, of course, in order to counteract the psychiatric diagnosis of Swedenborg as just another case of a man who has become insane, psychotic, delusional, or epileptic.

The most recent article, written by John Johnson and published in the *British Journal of Psychiatry* (1994) is barely two pages long and presents no believable evidence other than repeating some undocumented and highly disputed hearsay claims made by one of Swedenborg's landlords in London where he was lodging for awhile. The article makes no reference to Swedenborg's contributions and achievements throughout his life and does not refer to any of the biographies of Swedenborg that discuss and refute the delusion diagnosis. No one who knows anything about Swedenborg would give any serious attention to this type of historical psychiatric hype. Yet its publication in a respectable professional journal is of some significance and needs to be evaluated.

This type of global attack on Swedenborg through the insanity charge has had a long history in Swedenborgian literature, as ably documented in Talbot's rebuttal of Johnson's gratuitous claims. So rather than ask, as Talbot already has, "How do you know that this man Swedenborg was sane or truthful?", let me formulate another question, namely, "When do people ask how you know that this man Swedenborg was sane or truthful?" I will take up two conditions or motives that bring people to ask this question. I encountered these motives in my own process of becoming a

Swedenborgian scientist in middle age, when my academic and scientific career as a psychologist and social scientist was at its peak.

At age 43 I had been a full professor for a decade and had garnered a long list of publications and government research grants in my specialty field of psycholinguistics and cognitive science. That year (1981) I was browsing one day in our University of Hawaii library in the BS and BX category looking for a Bible commentary we could take home (I was with my wife). At one point we saw several shelves of books in one edition, all authored by Emanuel Swedenborg. I recognized the name from a comment I had read in one of Rudolf Steiner's magazine articles. All I could remember was that Steiner called Swedenborg a mad genius and that I had made a mental note to look him up some day. I had not expected his books to be in the Bible-exegesis category, but I was delighted at the double opportunity and took home my first Swedenborg volume of what I later came to know fondly as "the Writings."

### **RESISTANCE TO SWEDENBORG**

My wife and I spent hours every evening reading volume after volume in this astonishing series of revelations. Our perspective on everything was fundamentally changed—on religion, on science, on nature, on life, on death. It was during this time that I ran into the two types of situations in which I was asked by someone, "How do I know that Swedenborg is sane and truthful?" I thus became empirically aware of two types of resistance to the revelations in the Writings of Swedenborg: first, from family and friends; second, from scientists and theologians. The first type of resistance may be called informal or commonsensical; the second type, formal or doctrinal.

Common sense dictates that we be wary of grandiose and delusional claims other people may make. It is useful to adopt a "negative bias" as reflected in, "Why should I believe these fantastic claims?" Note, however, that this is in the form of a question, thus indicating willingness to at least listen to the argument and evidence, if any. The informal, common sense stance is less rigid than the formal, doctrinal stance, which operates by

excluding in advance anything that is not already in agreement with the primary assumptions and proposals.

Commonsensical and doctrinal resistance to Swedenborg are purely external to the Writings. From this external perspective people may see my involvement with Swedenborg as gullibility or intellectual affectation for the occult or unusual. However these attitudes and judgments reflect on *the people who have them*, and leave untouched any examination of the merit of Swedenborg's proposals and revelations. It is important to see that Swedenborg cannot be treated as an ordinary case. Swedenborgians do not ordinarily question the standard basis of psychiatric medicine and diagnosis. Thus, if an adolescent in a Swedenborgian family in say Bryn Athyn, PA, a suburb of Philadelphia where hundreds of such families live today, should suddenly start claiming that he talks to spirits and travels to heaven and hell on a recurrent basis, and speaks to spirits from other planets, the Swedenborgian parents would surely take the adolescent to a psychiatrist and might admit the diagnosis of mental illness.

Looking at Swedenborg as an ordinary case history almost certainly forces a psychiatrist to a diagnosis of mania or psychosis of some sort. It's only when we remove Swedenborg from the ordinary-case scenario, and categorize him as historically unique and special, that the psychiatric diagnosis can be lifted as inappropriate or inapplicable. This cannot be done from an external perspective because psychiatrists would have no warrant or opportunity to lift the applicability of the standard diagnosis. But from an inner perspective, which critically and analytically examines the writings as a scientific proposal, it is possible to confirm that Swedenborg is a unique case requiring a paradigm shift.

The process will soon begin whereby scientists will be examining Swedenborg's writings as scientific proposals, and from this inner perspective, a judgment will arise which I predict will be positive and will fundamentally alter science and its theory and method. As a scientist and behaviorist within scientific psychology, I have made such an examination of Swedenborg's writings and have seen their fundamental merit. It has influenced my subsequent scientific research and theory, and has led me to attempt some of the conceptual translation process that is required to bridge the gap between the eighteenth century and the twenty-first.

## IS SWEDENBORG'S DUALISM SCIENTIFIC?

Contemporary scientists are by training oriented to empiricism, that is, to a mutual agreement that hypotheses, theories, and explanations are to be confirmed by data obtained through an approved scientific methodology. Scientific disciplines differ in detail regarding what are considered "approved" methodologies. However, there are general, cross-disciplinary agreements which are based in the logic of experimentalism and research design. These principles are transmitted formally to new scientists, so that graduate students in any discipline that want to be recognized as scientific, cannot obtain their Ph.D. degree without proving their understanding of these principles in required examinations and in the doing of research that conforms to these principles.

What today's scientists acquire by routine training, eighteenth century contemporaries of Swedenborg had to acquire by intellectual genius and leadership. It was the genius of Descartes, Leibniz, Wolff, Hume, Locke, Swedenborg, Newton, and Kant, among the well-known early figures, who engineered the basis of our modern scientific intellectual structure upon which we have relied to build a rapidly evolving modern society.

Swedenborg was obsessively concerned with rationality and empiricism. This is evident in both his Philosophical Works and his Theological Writings. He was extremely careful to use only rational appeals, and he insisted that all rational accounts can and should be confirmed with empirical facts or observations.

In many instances he describes experimental manipulations of conditions to produce a predicted effect, emphasizing that without these factual, sensual, empirical observations or confirmations, the human mind does not give interior assent to anything. In other words, the modern mind can only accept an account of God that is rational and can be empirically confirmed. This idea is known in New Church circles as "Nunc Licet," which is Latin for "Now it is permitted" and represents an inscription Swedenborg saw in the spiritual world on a temple gate that contained the Word of the Second Coming (see *TCR* 508).

Here are a few passages that show Swedenborg's orientation toward empirical confirmations. The relevant specific phrase is emphasized.



A certain person was let into that dark cloud where the infernals are, *in order that he might know* how the case is with those who are there; he being protected by the Lord by means of angels. Speaking from thence with me he said that there was there so great a rage of insanity against good and truth, and especially against the Lord, that he was amazed that it could possibly be resisted; for the Infernals breathed nothing but hatred, revenge, and slaughter, with such violence that they desired to destroy all in the universe; so that unless this rage was continually repelled by the Lord, the whole human race would perish. (AC 3340)

It has been given me to know *from much experience* that in the natural world and its three kingdoms there is nothing whatever that does not represent something in the spiritual world, or that has not something there to which it corresponds. Besides many other experiences, *this was made evident* also from the following. On several occasions when I was speaking of the viscera of the body, and was tracing their connection from those which are of the head to those which are of the chest, and so on to those which are of the abdomen, the angels that were above me led my thoughts through the spiritual things to which those viscera correspond, and this *so that there was not the least error*. They thought not at all of the viscera of the body of which I was thinking, but only of the spiritual things to which these correspond. Such is the intelligence of angels that from spiritual things they know all things in the body in general and particular, even the most secret things, such as can never come to man's knowledge; nay, they know everything there is in the universal world, without a mistake; and this because from spiritual things are the causes, and the beginnings of causes. (AC 2992)

That the Word in the letter stores up such things within it, is often presented to the sight of the spirits or souls who come into the other life; and it has sometimes been granted me to be present when this was done, as may be seen from the experiences adduced in the first part of this work concerning the Holy Scripture or Word, as containing things Divine which *are manifest to good spirits and angels* (nos. 1767–1776, and 1869–1879); from which experiences I may for the sake of confirmation again relate what now follows. (AC 3473)

Nevertheless all these means have been disclosed in the internal sense of the Word, and *are manifest before those who* are in that sense, thus before the angels, who *see and perceive* innumerable things on this subject, of which scarcely one can be unfolded and explained in a manner suited to the apprehension of man. [3] *But from effects and the signs thereof it is in some measure manifest to man how the case is with this conjunction*, for the rational mind (that is, man's interior will and understanding) ought to represent itself in the natural mind just as this mind represents itself in the face and its expressions, insomuch that as the face is the countenance of the natural man, so the natural mind should be the countenance of the rational mind. (AC 3573)

It was also once *shown me to the life* what societies they are, and of what quality, and how they flow in and act, which constitute the province of the face, and flow into the muscles of the forehead, of the cheeks, of the chin, and of the neck, and what communication there is between them. *In order that this might be presented to life*, it was allowed them by means of influx and in various ways to present the appearance of a face. *In like manner it was shown* what societies, and of what quality, flow into the lips, into the tongue, into the eyes, and into the ears *and it was also given to speak with them*, and thus to be fully instructed. *In this way it was made evident* that all who come into heaven are organs or members of the Grand Man; and also that heaven is never shut, but that the greater its numbers the stronger is the endeavor, the stronger the force, and the stronger the action; and further, that the heaven of the Lord is immeasurable, so immeasurable as to exceed all belief; the inhabitants of this earth being very few in comparison, and almost as a pool compared with the ocean. (AC 3631)

*In order that it may be still better known how the case is with* representatives in the other life, that is, with those things which appear in the world of spirits, take some further examples. When the angels are speaking about the doctrinal things of charity and faith, then sometimes in a lower sphere, where there is a corresponding society of spirits, *there appears the form or pattern* of a city or cities, with palaces therein exhibiting such skill in architecture as is amazing, so that you would say that the very art itself

was there in its native home; not to mention houses of varied aspect; and wonderful to say in all these objects both in general and in particular there is not the smallest point, or visible atom, that does not represent something of the angelic idea and speech: *so that it is evident* what innumerable things are contained in these; and also what is signified by the cities seen by the prophets in the Word; and likewise what by the holy city or New Jerusalem; and what by the cities in the prophetic Word; namely, the doctrinal things of charity and faith (nos. 402, 2449). (AC 3216)

But I know that these are arcana too deep to fall within apprehension; and this as before said for the reason that they are things unknown; but as the internal sense describes them, and this as to all their circumstances, they must needs be set forth, no matter how much they may appear to be above the apprehension. At the very least *it may in this way be seen* what great arcana there are in the internal sense of the Word; also that the arcana are such as scarcely to be seen in the light of the world, in which man is during his life in the body, but that *they always appear more distinctly and clearly* in proportion as man comes from the light of the world into the light of heaven, into which he comes after death; thus into the light in which blessed and happy souls are, that is, the angels. (AC 3086)

*Who could know*, except from an interior searching of the Word, and at the same time from revelation, that these words, "Laban ran out of doors unto the man, unto the fountain," signify the desire of the affection of good toward the truth that was to be initiated into truth Divine? And yet *this is what the angels perceive* when these words are read by man; for such are the correspondences between a man's ideas and an angel's that while the man takes these words according to the sense of the letter, and has the idea of Laban as running out of doors to the man unto the fountain, the angel perceives the desire of the affection of good toward the truth which was to be initiated into truth Divine. For the angels have no idea of Laban, nor of running, nor of a fountain, but they have spiritual ideas corresponding to these. That *there is such a correspondence of actual things*, and thence of ideas, natural and spiritual, may be seen from what was said

above concerning correspondences (see nos. 1563, 1568, 2763, 2987-3003, 3021). (AC 3131)

[2] That there can be no conjunction of falsity with good, or of truth with evil, but only of falsity with evil, and of truth with good, *is has been given me to perceive to the life, and I have perceived that* the case is as follows: When a man has the affection of good, that is, when he wills good from the heart, then whenever anything is to be thought of that is to be willed and done, his good willing flows into his thinking, and there it applies itself to the knowledges which are there, and joins itself with them as its recipient vessels, and by this conjunction impels him so to think, to will, and to act. (AC 3033)

[3] In the other life such persons (however much in this life they may have seemed to be more highly instructed than others) are more stupid than others and so far as they are in the persuasion that they are in truth, *they induce* thick darkness on others. *Such have at times been with me;* but they were not susceptible of any affection of good from truth, *howsoever the truths were recalled to their mind* which they had known in the life of the body; for evil was with them, with which truths *could not be conjoined*. Neither can such persons be in the company of the good; but if there is anything of natural good with them, they are vastated even till they know nothing of truth; and *then there is insinuated* into the remaining good something of truth, as much as the little remaining good can receive. But they who have been in the affection of good from the heart, *are able to receive* all truth in accordance with the amount and the quality of the good that has been with them. (AC 3033)

To the above I will add two *memorable experiences*. First: After the problem concerning the soul had been discussed and solved in the gymnasium [no. 315], *I saw* the audience going out in procession, the Chief Teacher in front, after him the elders in whose midst were the five young men who had given the answers and then the rest. Coming out, they withdrew to the sides of the house where were walks bordered by shrubs. Gathering there, they separated into small groups which were so many companies

of young men conversing together on matters of wisdom. In each group was one of the wise men from the balcony. *Seeing them* from my lodging, I became *in the spirit*, and *going to them* in the spirit, approached the chief teacher who lately had proposed the question concerning the soul. When he saw me, he said: "Who are you? *When I saw you* coming on the road, it surprised me that you now came into my sight and now passed out of it; that is, at one moment you were visible to me and suddenly became invisible. You certainly are not in our state of life." To this I answered, smiling, "I am not a player of tricks, or a Vertumnus, but am by turns, now in your light, now in your shade, and thus a sojourner and also a native"

[2] At this, the Chief Teacher looked at me and said, "You speak things strange and wonderful. Tell me who you are." I then said: "I am in the world called the natural world, in which you were and from which you have departed; and I am also in the world into which you came and in which you now are, which is called the spiritual world. Thus it is, that *I am in a natural state and at the same time in a spiritual*, being in a natural state with men on earth, and in a spiritual state with you. *When in a natural state, I am not visible to you*, but when in a spiritual state I am visible. My being of this nature has been granted me by the Lord. To you, enlightened man, it is known that a man of the natural world does not see a man of the spiritual world, or the reverse. Therefore, when I let my spirit down into the body I was not visible to you, but when I sent it out of the body I was visible . . ." (CL 326)

To the above shall be added the following *memorable experience* : ( . . . ) [3] An angel, looking down from heaven, *heard these words* and in order that the young man might go no further in profaning marriages, he interrupted him and said, "Come up hither and *I will show you in a living way* what heaven is, and what hell and the nature of the hell for confirmed whoremongers." He then showed him the way, and the young man went up. After being received, he was led first into a paradisaal garden where were fruit-trees and flowers which from their beauty, pleasantness and fragrance filled the animus of all with the delights of life. Seeing these, he expressed his great admiration; but he was then in the external sight in

which he had been when seeing like things in the world. In this sight he was rational, but in his internal sight, wherein whoredom played the chief role and occupied every least thought, he was not rational.

*Therefore his external sight was closed and his internal sight opened.* With this opened, he said, “*What do I see now? Is it not straw and sticks of wood? And what do I smell now? Are they not bad smells? Where now are the things of paradise?*” The angel said: “*They are near by and at hand, but they do not appear before your internal sight which is scortatory, for that sight turns heavenly things into infernal, seeing only their opposites. Every man has an internal mind and an external, and so an internal sight and an external. With the evil, the internal mind is insane, and the external wise, while with the good, the internal is wise and from this the external also; and in the spiritual world a man sees objects according to the nature of his mind.*”

[4] *From power given him, the angel then closed the young man’s internal sight and opened his external. He then led him through the gates towards the center of the dwellings. There he saw magnificent palaces of alabaster, marble, and various precious stones, and beside them porticos, and columns round about, overlaid and encompassed with stupendous insignia and adornments. On seeing these, he was amazed and said, “What do I see? I see magnificent things in their true magnificence, and architecture in its true art.” Thereupon the angel again closed his external sight and opened his internal sight, which was evil, being filthily scortatory. When this was done, he cried out, saying, “What do I see now? Where am I? Where now are the palaces? And the magnificent things? I see heaps, ruins, and places full of holes!”*

After this . . . his internal sight was opened *and the external closed as before*, and being asked what he saw now, he replied, “*Nothing but walls, here of rushes, there of straw, and yonder of fire-brands.*” [6] *He was then brought once more into his external state of mind, and maidens who were beauties, being images of heavenly affection, were brought to him and addressed him with the sweet voice of their affection. On seeing and hearing them, his face changed and he returned of himself to his internals which were scortatory; and because these cannot endure anything of heavenly love and, on the other hand, cannot be endured by heavenly*

love, *they both vanished*, the maidens from the sight of the man, and the man from the sight of the maidens.

“. . . Know, however, that with every one in this world, his externals are successively closed and his internals opened. In this way they are prepared for heaven or for hell. And because the evil of whoredom defiles the internals of the mind more than any other evil, you must needs be brought down to the filthy things of your own love, and these are in hells where the caverns stink of excrement. *Who cannot know from reason* that in the spiritual world, what is unchaste and lascivious is impure and unclean, and thus that there is nothing which more pollutes and defiles a man and induces on him what is infernal. Take care, therefore, that you glory no more in your whoredom that therein you are a masculine man above others. *I predict that you will become* so feeble that you will scarcely know where your masculinity is. Such is the lot that awaits those who glory in the potency of whoredom.”

After hearing this, the young man descended and returned to the world of spirits and to his former companions. He then spoke with them modestly and chastely, yet not for long. (CL 477)

Numerous additional examples can be found that show Swedenborg's empirical orientation through and through, his continuous effort in never asking the reader to believe by authoritativeness or blind belief from a trusting attitude. He understood and taught that nothing can be accepted in an interior way but that which is freely seen as true from one's own perspective, knowledge, and understanding. Hence his persistent effort in casting *every* principle or concept into a rational mode that examines theoretical propositions in the light of empirical confirmations. Any account or explanation about God's Divine operations on the planet, such as those systematically laid out in his work titled *Divine Providence*, are worthless unless they can be empirically confirmed by the reader. This confirmation process is thus inevitable and at the center of Swedenborg's description of regeneration and character change. Hence he spends so much text carefully presenting the scientific facts that knowledgeable persons can confirm, and thus come to freely accept the rational explanation of spiritual principles and facts.

The exclusion of Swedenborg from most, if not all, scientific disciplines is not due to his lack of empiricism. This fact cannot be stressed too strongly. Swedenborg is excluded by the attitude and commitment to monism (materialism) and atheism (secular humanism), not lack of empiricism. Such a single-minded commitment *automatically* and without consideration excludes Swedenborg who has made scientific dualism a central aspect of his orientation. The major empiricists in the history of modern science, like Hobbes, Descartes, Leibniz, Newton, Darwin, and Einstein, who acknowledged nature as a work of God, then believed that He removed Himself from the equation, "Watching us from a distance" as a recent popular song says. But Swedenborg refused to be a weekday scientist, and felt compelled by sincerity and consistency, to integrate the weekday science and the Sunday deity. This integration was achieved by developing the dualist position, which was, that there exist two substances, one natural, and the other spiritual within the natural, but not in time and space. His works are about the scientific and empirical details of this proposition.

A recent article titled "Toward a Science of Experience" by A. Kukla appeared in *The Journal of Mind and Behavior* (Spring 1983). It presents a reevaluation of the legitimacy of introspective evidence in scientific psychology and concludes that the usual private/public distinction behaviorists make, is not logically tenable because both types of data fulfill the requirements of objectivity: terms must refer to events, events must be publicly observable, explanations must be verifiable by events, concepts must apply to a class of observations or properties, observations must have inter-subjective agreement when conditions are met, experimental manipulation of known conditions must produce predictable results.

It is remarkable that all of Swedenborg's writings fully meet these six requirements for scientific objectivity. The quotations presented just above in this section clearly show this, especially in the emphasized phrases that show his empiricism. Swedenborg always defined his terms precisely where others started being vague. Numerous people have written about spirituality, about the afterlife, about heaven and hell, about the subconscious mind, about sin and regeneration, about life on other planets, about the past, present and future. Swedenborg is the only one, to our knowledge, who has combined all these areas, has integrated them into one



rational theory or account, and has presented numerous pieces of empirical evidence to confirm them. In Swedenborg's writings we find a complete exposition of scientific dualism and its empirical methodology.

Swedenborg does not appeal to unique capabilities in presenting his experiences and observations "when in the spirit." Anyone who is brought into that mental state can witness what Swedenborg has reported. As shown in the quotations immediately above, Swedenborg's observations were social in nature, always involving other people. Anyone present could objectively perceive what Swedenborg observed and reported. His witnessings, or testimony, are in that sense public, not private. The fact that we can't place ourselves into that mental state by our current level of skills, is a technical problem of methodology, to be solved in the future. In the meantime, his data stand.

## THE SIX MINIMAL PREMISES OF DUALIST SCIENCE

### 1. The existence of the dual sun

All scientific theories and models of phenomena must include an account of the dual sun: the Sun of the spiritual world and its atmospheres and geography, and the sun of the natural world with its atmospheres and land masses on planets, replicated numberless times in sun-planet locations throughout the natural universe.

The dual sun is replicated in all parts thereof. Thus, any object produced through the dual sun such as a pebble or protein cell, will replicate within its structure the vertical degrees of the dual sun. The external structure of the object will be visible or measurable through tools of the senses, such as an electronic microscope or an identifiable biochemical reaction, but the internal structure produced by the spiritual Sun will require spiritual detection devices, which are rational, objective, and confirmable by others.

The scientific account of phenomena, objects, and properties includes the dual sun when it shows how cause-effect relations are actually relations between the object's inner and outer structure, replicating the original cause-effect relation between the Sun of the spiritual world and the sun of the natural planetary system. The former produces the latter and is

contained within it synchronously. Sequential cause-effect in production or etiology is replicated in synchronous action between the vertical degrees.

The dual sun creates its own atmospheres and geography which Swedenborg describes in minute detail. These descriptions must be accepted as scientific revelations, that is, facts about reality that were unknown in science, and serve to assist us in building a rational civilization that is in harmony with spiritual reality, thus serving to improve the orderly evolution of society and mind.

## **2. The existence of vertical degrees**

The cause, which precedes the effect, continues its presence in the effect by remaining within its interior and acting synchronously. Remove the cause within the synchronous effect, and the effect ceases to exist. Every natural phenomenon that physics and biology have seen so far can now be looked at again in this new paradigm. For instance: what is the cause of your car accelerating when the light turns green? It is common to give a mechanical account of the cause in terms of sequences involving gas pedal, fuel, combustion engine, axle, wheel, and tire friction. In the new dual paradigm, these sequences would be correlated effects, while their cause lies in their interior structure determined by the spiritual Sun, in this case, your intention as a driver to speed up. This human motive is the cause of the acceleration, and the acceleration continues to exist until this spiritual cause is removed from its interior.

Similar, but more complex dual accounts will no doubt be constructed for say, the action of hostile bacteria on the spine in meningitis, or a catastrophic earthquake, or the diffusion properties of light. Many such dual scientific accounts are found in Swedenborg throughout his voluminous writings, both theological and pre-theological. The relationship between inner and outer in vertical degrees is called “correspondence.” When we consider the production phase of any object or process the cause precedes the effect in time, thus the functional relation is asynchronous. But when the production phase is completed, and the effect is fully in existence or operation, then the prior cause enters and remains within the inner structure of the effect. Thus, cause and effect operate synchronously.

As soon as the correspondential coupling is interrupted, the effect ceases to exist.

For instance, the body is alive with integrated biological operations as long as these natural effects retain a functional connection with the soul, the spiritual organ responsible for maintaining and directing cell action. When the physical organs and processes no longer respond to their inner cause due to illness or mechanical injury, the soul together with the mind, also called the spirit, separates from its relation to the body. At this point the natural body becomes a mere corpse, quickly losing its human form and returning to its mineral form, while the spirit now assumes its role as the external body within which is contained the mind or will and understanding. This is called the afterlife in the spiritual world, or life in eternity.

Swedenborg has described this life with many details that inform us on its geography, government, daily activities, philosophy, and knowledges. It is a dramatic social-psychological life in which people's inmost degree, the plane of their feelings and intentions, produces as cause, the outward effects in the ecology of the spirit such as location or co-presence with others and the quality of the appearing surroundings such as weather, vegetation, animal life, mood, and the artistic style of visible objects.

### 3. The existence of influx

Newton passed into the spiritual world in 1727 before Swedenborg's sojourn and stay in London. Later, however, the two men met in the spiritual world: "I spoke with Newton concerning a vacuum, and concerning colors" (*LJ Post.* 265), and he goes on regarding Newton's changed view on the concept of vacuum:

When he had heard these things, Newton said that before this he had desisted from that idea, and he would desist from it hereafter; knowing that he is now in the spiritual world, in which, nevertheless, according to his former idea, would have been his vacuum; and that even now he is a man, and therein he thinks, feels, acts, yea breathes, and this could not take place in a vacuum which is nothing, but in something which is, and

from Esse exists and subsists, and that an interstitial nothing is impossible, because that would be destructive of something, that is of essences and substances which are something. For something and nothing are altogether opposites, even so that he was horrified at the idea of nothing, and would beware of it, lest his mind fall into a swoon. (CL 266)

Newton in the spiritual world has a new concept of color, as described by Swedenborg:

Concerning colors he said that in the world he had believed that they originated from the substances, as it were, of different colored materials continually flowing forth from the solar ocean, and adding themselves continually to like things in objects in the world, likewise when they pass through pellucid objects following then the ways of light, according to its diffractions and refractions, and proceeding as like to like, thus red to red, blue to blue, yellow to yellow, and so on, as in prisms, crystalline globes, and vapors whence come rainbows.

But the angels did not acknowledge this cause of colors, saying that there are colors in the spiritual world as well as in the natural world; and in the spiritual world they are vivid, splendid, and variegated more than in the natural world, and that they know that they are variegations of their light corresponding to their love or good, and to their wisdom or truth, and that the sun from which their light proceeds, is the Lord Himself, whose Divine love presents around Him the appearance of a sun, and the Divine wisdom therefrom the appearance of light, and that from that sun, which as was said, is pure love, no such substances or matters flow forth, but that pure light presents to view variegations of colors in objects according to the reception of wisdom by the angels the color red according as their wisdom is derived from good, and the color bright white according as their wisdom is derived from truth, and the rest as they partake of the defect and absence of them, which there correspond to shade in the world.

Moreover the angels, by their spiritual ideas, by which they are able to present and bring forth the causes of things to the life and to full consent, demonstrated that colors are nothing else than variegations of flamy light and bright white light, in objects according to their forms; and

that colors are not materials, so neither is light, because they correspond to the love and wisdom of the angels, from whom they proceed by Divine operation; and their love and wisdom are not material but spiritual. Neither are heat and light in the world material, but natural, and they inflow into matters, and they modify themselves in them according to the arms of the parts. Therefore neither are colors material, as they would be if they existed from different colored atoms. At length from some indignation they said, "Who cannot see a paradox in the Newtonian cause, yea what is absurd?" And they departed, saying they would return if he would discern spiritually or even naturally concerning colors, and not so materially and sensually.

Then some spirits approached, and said to him [Newton], "We entreat you to think of colors not as originating from some small prism or from some wall, but from the green color of all the woods and grassy fields of the whole world in which you were; can you conceive of a continuous efflux from the sun of a green color alone, and at the same time an influx, and a continual restoration, likewise of a continual influx of gray or stone color into the mountains of the whole earth, and so on? Can you then conceive of a continuous ocean of green alone, and of rock color alone? Tell us where they go, where they subsist, do they proceed into the universe? Or do they fall downwards somewhere, or ascend upwards? From these things perchance new earths exist, for they must be in great abundance because they are material." After he thought of this thing more deeply, he said, "Now I know that colors are modifications of light in objects, in the forms of which they make general planes, upon which the light is variegated according to the forms of the parts, whence are colors." These are the words of Newton himself, which he wishes me to communicate. (*LJ Post. 267*)

And in another place he adds:

Respecting the planes of colors, he [Newton] spoke in this fashion: that there were three: white from light, red from fire, and black from shade; and that all the varieties of colors arise therefrom. (*SD 6064*)

These accounts, and many others like it on the subject of influx, reveal that light and its phenomena of colors visible in the natural world are not

material substances but spiritual. In other words, visible or measurable aspects of light such as quanta, wavelength, and speed, are natural effects produced by spiritual influx. Newton's self-conscious presence in the afterlife forces him to modify his scientific paradigm that is based on vacuum, light, and motion as material forces and substances. By acknowledging the dual sun, the continuity of cause-effect as vertical degrees, and the operation of influx, Newton shows the way our modern science can forge the new dualism.

#### 4. The existence of vertical community

On this subject, Swedenborg writes:

Before my mind was opened, so that I could speak with spirits, and so be persuaded by living experience; for many years previous, such proofs existed with me, that I am now astonished, that yet I did not come into persuasion concerning the Lord's government, through spirits. Not only were there dreams, for several years, informing me concerning those things which were written, but there were, also, changes of state, when I wrote; a certain extraordinary light in those things which were written. Afterwards, also, many visions, when my eyes were closed, and light miraculously given; and spirits sensibly (inflowed). It was as manifest to perception (*sensum*) as the corporeal senses. Many times (occurred) infestations through various modes, by evil spirits, in temptations. Then, afterwards, when those things were written to which evil spirits were averse, so that I was so obsessed as nearly to be overcome with horror (*ita ut poene obsiderer ad horrorem*). Fiery lights were seen. Speech (*loqueloë*) in morning-time (was heard), besides many other things; until a certain spirit addressed me in a few words. I was greatly astonished that he should perceive my thoughts, and afterwards wondered greatly when (my mind) was opened so that I could converse with spirits; in like manner the spirit (was then surprised) that I should be astonished. From these things it may be concluded with what difficulty man can be led to believe that he is ruled by the Lord through spirits, and with what difficulty he recedes from the opinion that he lives his own life from himself, apart from spirits—1748, August 27. (SD 2951)

In terms of psychological impact, this scientific revelation is the most dramatic and may have extraordinary influence on our civilization and self-conception as a human race. "Horizontal" community can be used to discuss ethnic and cross-cultural differences and similarities as we first study them in history, geography, government, social sciences, and the humanities. But "vertical" community is a reference to influx by correspondence of what people in the spiritual world feel and think into what people on earth feel and think. This kind of influx has not been described or even suspected in the entire history of science, let alone described in great detail as it is in Swedenborg.

Our thoughts and feelings vary moment to moment. Psychology, psychiatry, cognitive science, and neuroscience have all dealt with aspects of thinking and feeling, but no one has proposed a full and adequate explanation of the source of this variation. In Swedenborg we now have the revealed details of how and why thoughts and feelings we have vary and succeed one another in highly constrained ways not unlike these by which linguistic syntax constrains the form of the sentences we utter (*DP* 48; 49; 71).

Our thoughts and feelings are constrained and influenced in two ways: immediate by the Divine and mediate by the Divine through the vertical community. Divine constraints exercised immediately and directly without intermediaries are described by Swedenborg under the rubric of the Laws of Divine Providence and the Laws of Divine Permissions. The Divine "permits" certain departures or modifications (corruptions; adulteries) but only in so far as good can be brought out of them. The Divine blocks or inhibits mental departures that are not of spiritual benefit to anyone, actor or victim. Though we have freedom of choice and freedom of thought, it is not absolute but constrained within limits that have been revealed.

Divine constraints are also exercised indirectly, through intermediaries, along a vertical chain of human beings by correspondence across vertical degrees. The Divine then acts into the highest plane of the mind and those who dwell in that state called "celestial angels of the third heaven." They become conscious of the thoughts and feelings whereupon these constrain by correspondence and influx the thoughts and feelings of the plane immediately below it and those who dwell in that state called

“spiritual angels of the second heaven.” The vertical chain of correspondence thus descends from the Divine through the entire range of the vertical community from highest heaven to lowest hell.

Our thoughts and feelings while we are in the physical body from the moment we take our first breath at birth (but not the fetus) to the moment we breath our last (coma or death) are entirely constrained by our spiritual associations which we inherit and which we strengthen or weaken by means of the decisions and choices we make and love. The vertical community implies the existence of a common unlearned universal thought-language used by the entire race. It also implies that thinking and feeling are social activities, not individual. It is not possible to think on your own. Some spiritual society must be in contact to provide influx from their mind to ours and without this influx we cannot think—we would “swoon” or be like someone in a coma.

Our thinking or feeling is a group phenomenon, a community affair. The content of what we think or feel and what the spiritual societies in contact think and feel, is determined by correspondence. These laws of correspondence, known to the ancients but later forgotten, have now been revealed again through Swedenborg. Surprise of surprises: these correspondences are embedded in Sacred Scriptures and in ordinary language, such as the correspondences between light and truth, emotion or love and heat, water and truth, poison and sin, and many less known ones such as garden and intelligence, snake and science, seed and intentions, the number forty and temptation, the number three and completion, and so on.

Swedenborg was able to instruct himself empirically as to these correspondences. His revelations are not by poetic inspiration of metaphors and similes. He was able to observe correspondences visually and experientially through his ability to be present consciously in the plane of the spiritual world. For instance, when people there discussed spiritual ideas from revelation, horses appeared. When someone he conversed with had a hostile vindictive personality, all sorts of dangerous and noxious animal and vegetative life appeared. When speaking with angels or visiting their plane of habitation, the surroundings similarly reflected natural things that were exact correspondences of the spiritual meaning of their life-style, affections, and topics of discussion, reflected in unending detail about the color of walls, the material of clothes, the art of architecture and jewelry,



and so forth. In the twelve volumes of the *Arcana Coelestia* and the eight volumes of the *Apocalypse Explained and Revealed*, Swedenborg undertook a verse-by-verse, and phrase-by-phrase analysis of three books of the Bible (Genesis, Exodus, Revelations) in which he enters into the vast details of correspondences, or the cause-effect analysis of natural phenomena by synchronous influx.

Our civilization has thus received a new consciousness of ourselves as human beings, including the knowledge that our intimate and most personal thoughts and feelings are in fact operations of communication and mutual influence between ourselves and the entire human race across all times and planets. Swedenborg says that in God all things are as one and that God sees the entire human race as one person. This is another way of saying that nothing in the universe can exist by itself and that all things are interconnected (DP 74; 124). Though this wisdom was long known to individuals in many generations, it is only in Swedenborg that we are finally given the details of how this operates.

Many issues will be investigated as psychology and society as a whole begin to assimilate the concept of the vertical community. How can we influence our vertical associations? If we knew this we could apply the knowledge to our activities in therapy, instruction, inventiveness, and social activism to bring about new thoughts and feelings, hence new values and ways of behaving. Swedenborg clearly states that the purpose of the universe and all its phenomena such as the dual sun, influx, and the vertical community is a human purpose serving our regeneration, that is, our ability to raise our immortal mind or spirit into the higher planes of human existence to eternity.

Without these two faculties [liberty and rationality] we would not have immortality and eternal life. This follows from what has just been said, that by means of them there is conjunction with the Lord and also reformation and regeneration: by conjunction we have immortality and by reformation and regeneration we have eternal life. Since by means of these faculties there is conjunction of the Lord with every person, with the evil as well as with the good, as has been said, therefore every individual has immortality. But eternal life, that is, the life of heaven, is given to that person in whom there is reciprocal conjunction ranging

from inmost things to ultimates. From these considerations may be evident the reasons why the Lord preserves these two faculties in us unimpaired and as sacred in every step of His Divine Providence. (DP 96)

### 5. No function without substance or the dualist methodology

The new scientific paradigm needs a workable methodology in order to proceed and progress. We now have a scientifically revealed method of research and theory in dualist science. It consists of our following the map available in the hard-wired built-in structure of correspondential influx across vertical degrees. We now have available a practical method for investigating empirically cause-effect relations in the natural world. We have been given the rational principles that constrict what can happen and what cannot as laid forth in the laws of providence and permissions. We have also been given the principle of correspondences across vertical degrees, how they operate and functionally interrelate, both in etiology or development, and in synchronous operation. No one has offered a count of the size of the database of correspondences in Swedenborg, but as a global guess I would say it runs into the millions. There have been attempts to enumerate and categorize some of the correspondences by Swedenborg in the indexes at the ends of his works, and definitional lists (for example, *Ontology*), and there have been dictionary compilations by Swedenborgian scholars (Potts; Worcester; Sechrist; L. James).

Noam Chomsky, architect of the new generative linguistics, is one of the few influential figures in science who have fought a long intellectual battle against “behaviorism,” which has been a dominant approach in Psychology identified with B. F. Skinner. Chomsky defied the long tradition of materialism and asserted that humans are born with a *mental organ* he called LAD or Language Acquisition Device. Chomsky redefined linguistics as “a branch of cognitive psychology” and invented an entirely new methodology for linguistics that was adopted by the entire profession as the new dominant paradigm. Chomsky defines the mind as a “biological organ” made of sub-organs. His approach thus follows the rule of “No Function Without Substance.” However he had no specific suggestions regarding the nature of this mental substance. Swedenborg is unique in the specificity with which he identifies the mental organ, which he calls the “spirit.”

Swedenborg was initiated into this scientific methodology by the extraordinary love he maintained for the idea known globally to people as “all things are connected.” This idea is held as a primary tenet in both religion/theology and science. In religion: there is nothing that God does not see, or, there is nothing beyond or outside God’s will and power. In science: determinism rules and there are no exceptions. “Nothing outside God” and “all things determined” are thus principles generated by the rational law that all things are connected. However, though this principle is known and accepted, it is not understood and practiced in my generation of scientists. We have carved out our various disciplines and specializations so that we are freed in our theory building and in our research from having to impose on ourselves the constriction that “all things are connected” (DP 74; 124).

As a psychologist specializing in *psycholinguistics*, I was allowed by my peers to formulate mini-theories that did not attempt to take into account the fact that all things are connected. I could, for instance, obtain research grants and publish in refereed journals by looking for methods of analyzing discourse (dialog, self-reports, etc.) without being required to state how thoughts are generated through feelings. Studying thoughts without the feelings that correspond to them and produce them (DLW 412) is like studying the lungs without paying any attention to the heart and the circulation of the blood in the lungs. Such an account of the lungs would be worse than useless if decisions were to be based on it. Yet I am allowed to make scientific conclusions about thoughts without considering their corresponding feelings. And many other scientists, in fact, the vast majority, if not all in the field of cognitive science, have done likewise. Only at the end of the 1990s as we met the millennium, was there a new emergent awareness of how feelings influence thoughts, as indicated in a new book announcing the birth of the field of “affective computing” (Picard, 1997).

Swedenborg has given a vivid illustration of the new dualist methodology in his detailed analysis of *how the affective and the cognitive components of the mind interact* and are constrained by each other. Since the affective and cognitive organs of the mind are not visible to the microscope and cannot be scanned or imaged, we can gain specific details on their functional relations by applying to them what we know about the heart and the

lungs. All we need to know is that the heart corresponds to the affective while the lungs correspond to the cognitive. Here are some of his many presentations on this methodology:

It is known that heat and light go forth from the sun, and that all things in the universe are recipients and grow warm and bright in the degree in which they receive. So do heat and light go forth from the sun where the Lord is; the heat going forth therefrom is love, and the light wisdom (as shown in Part Second). Life, therefore, is from these two which go forth from the Lord as a sun. That love and wisdom from the Lord is life can be seen also from this, that man grows torpid as love recedes from him, and stupid as wisdom recedes from him, and that were they to recede altogether he would become extinct.

There are many things pertaining to love which have received other names because they are derivatives, such as affections, desires, appetites, and their pleasures and enjoyments; and there are many things pertaining to wisdom, such as perception, reflection, recollection, thought, intention to an end; and there are many pertaining to both love and wisdom, such as consent, conclusion, and determination to action; besides others. All of these, in fact, pertain to both, but they are designated from the more prominent and nearer of the two. From these two are derived ultimately sensations, those of sight, hearing, smell, taste, and touch, with their enjoyments and pleasures.

It is according to appearance that the eye sees: but it is the understanding that sees through the eye; consequently seeing is predicated also of the understanding. The appearance is that the ear hears: but it is the understanding that hears through the ear; consequently hearing is predicated also of attention and giving heed, which pertain to the understanding. The appearance is that the nose smells, and the tongue tastes but it is the understanding that smells and also tastes by virtue of its perception; therefore smelling and tasting are predicated also of perception. So in other cases. The sources of all these are love and wisdom; from which it can be seen that these two make the life of man (*DLW* 363).

*I. All man's thoughts are from the affections of his life's love and there are no thoughts whatever, nor can there be, except from them. It has been shown*

above in this treatise, and also in the work entitled *Angelic Wisdom Concerning the Divine Love and Wisdom*, particularly in the First and Fifth Parts, what in their essence are the life's love and the affections and thoughts thence derived, and what the sensations and actions from these are which arise in the body. Now since the causes from which human prudence flows forth as an effect are derived from these, it is necessary that something concerning these should also be stated here. For things written elsewhere cannot be so closely connected with those written later as they can if they are repeated and presented to view together.

[2] Earlier in this treatise, and in the one mentioned above on *The Divine Love and Wisdom*, it was shown that in the Lord are Divine Love and Divine Wisdom; that these two are Life itself; that from these two man has will and understanding, will from the Divine Love and understanding from the Divine Wisdom; that to these two the heart and the lungs in the body correspond; and that consequently it may be evident that as the pulsation of the heart together with the respiration of the lungs governs the whole man as to his body, so the will together with the understanding governs the whole man as to his mind. Thus, it has been shown, there are two principles of life in every man, the one natural and the other spiritual, the natural principle of life being the pulsation of the heart and the spiritual principle the will of the mind. Each of these joins to itself a consort with which it cohabits and with which it performs the functions of life, the heart joining to itself the lungs, and the will joining to itself the understanding.

[3] Now since the soul of the will is love and the soul of the understanding is wisdom, both being from the Lord, it follows that love is the life of everyone, and is life of such a quality as is joined to wisdom; or what is the same, that the will is the life of everyone, and is life of such a quality as is joined to the understanding. However, more on this subject may be seen above in this treatise, and especially in *the Angelic Wisdom Concerning the Divine Love and Wisdom* in the First and Fifth Parts. (DP 193)

Here Swedenborg continues to elaborate on the principle of correspondences as a methodology for dualist science. He first established the basic paradigm: the causal flow is always unidirectional from the spiritual to the natural and never the reverse. When I discussed the sense of hearing

in my lectures to psychology students, I did not present the idea that “it is the understanding that hears through the ear,” believing instead that hearing is the result of sound entering the brain through the ears in the form of nerve impulses that correspond to the air waves that correspond to the vocalizations of a speaker. All this was true, but hardly genuine as I was not required by the subject matter to discuss how from the brain the neural pattern became hearing or perceiving and understanding. It was enough that I discuss how the physical information got to the brain.

At this point I was supposed to cease being a rational scientist and speak in such irrational but permissible terms as, “My brain told me to go left” or “Your brain knows that the outcome will be negative,” or, “Your brain is telling you to fall asleep,” etc., thus leaving unexplained how we go conceptually from “I” to the brain or from the brain to knowledge or understanding other than to think that the brain knows and the brain understands—clearly an illogical idea since it is the “I” that knows and understands. What we need is to show how the brain and the “I” connect or communicate with each other. We are more aware of this irrational attitude when we talk about computers. Though we say “the computer decides which is faster and shows it to you first” and helpful things of this sort computers do for you, we know in the background through common understanding that the computer does not think and decide but performs data operations of a mechanical sort under the guidance and inner presence of the programmer. Perhaps we tend to forget this, especially as computers are entering the affective computing phase of development; nevertheless when we are asked to explain the process with some level of expertise, we will only appeal to the computer as a system operated by some programming software capable of organizing new incoming data through the digital loops created and laid down by the intelligence and wisdom of the programmer.

Swedenborg’s dualist methodology gives us a new honesty in science. His ethics of scientific research can be expressed by the phrase: NO FUNCTION WITHOUT SUBSTANCE (*DP* 74). If everything is connected from the Divine to the natural event (the primary premise of dualist science), then there must be a means of determinism “from firsts to lasts.” Nothing disconnected can exist (*TCR* 679). The connections are not mere wind, or magic, or divine pronouncement: they are substantial. Substance is a

necessary concept of all science. The space as vacuum idea never had real life in the modern mind. When I was in college in the 1950s, space exploration research was just beginning as a reality. There was tremendous interest. Everybody always emphasized the idea that space was not empty, but filled with particles and fiery atmospheres, and even that it had a shape called gravitational bend, and so forth. The modern mind has never accepted a vacuum, and the postmodern mind does so even less.

Swedenborg traces the series of atmospheres from the spiritual Sun to human levels of mind to the earthly sun and its derivative minerals and compounds. Swedenborg identified these atmospheres and their properties by means of rational problem-solving using the methodology of correspondences arranged in conceptual series from the most external to the most internal of the human form. An illustration of his method may be cited here:

Since all things of the mind have relation to the will and understanding, and all things of the body to the heart and lungs, there are in the head two brains, distinct from each other as will and understanding are distinct. The cerebellum is especially the organ of the will, and the cerebrum of the understanding. Likewise the heart and lungs in the body are distinct from the remaining parts there. They are separated by the diaphragm, and are enveloped by their own covering, called the pleura, and form that part of the body called the chest. In the other parts of the body, called members, organs, and viscera, there is a joining together of the two, and thus there are pairs; for instance, the arms, hands, loins, feet, eyes, and nostrils; and within the body the kidneys, ureters, and testicles; and the viscera which are not in pairs are divided into right and left.

Moreover, the brain itself is divided into two hemispheres, the heart into two ventricles, and the lungs into two lobes; the right of all these having relation to the good of truth, and the left to the truth of good, or, what is the same, the right having relation to the good of love from which is the truth of wisdom, and the left having relation to the truth of wisdom which is from the good of love. And because the conjunction of good and truth is reciprocal, and by means of that conjunction the two become as it were one, therefore the pairs in man act together and conjointly in functions, motions, and senses" (*DLW* 384).

Future research will no doubt explore the full complex of functional correspondences between body anatomy and mental operations. A major revelation has been given through identifying the affective organs of the mind (feelings, emotions, motives, impulses, etc.) with specific parts of the brain: right hemisphere in the cortex and cerebellum; and the cognitive organs of the mind (reasoning, memory, perception, comprehension, etc.) with the left hemisphere. (See also *DLW* 384). It is also revealed that the lungs correspond to the cognitive and the heart to the affective. Stephen Cole has traced the history of the cerebellum in psychology in relation to the concept of the unconscious (see *AE* 1175:4). It is clear that current research in neurophysiology and cognitive science confirms Swedenborg's conclusions about the connection between the cerebellum and the affective domain (voluntary; will; emotion; sensorimotor coordination; goal-directed behavior). I predict that future research in these fields will continue to confirm the results of Swedenborg's methodology of correspondences, especially in its details.

For example, Swedenborg describes how the lungs respire through blood directly from the heart as well as through blood from outside the heart (vena cava and aorta). This twofold respiration corresponds to how the cognitive can be elevated to higher planes of functioning called "celestial." This state is far above its normal functioning and corresponds to the lungs when respiring through blood not directly from the heart.

Swedenborg writes:

But as love that is of the will acts as one with the heart by correspondence, and wisdom that is of the understanding acts as one with the lungs (as has been shown above) therefore what has been said (in § 404) about affection for truth, perception of truth, and thought, can nowhere be more clearly seen and proved than in the lungs and the mechanism thereof. These, therefore, shall be briefly described.

After birth, the heart discharges the blood from its right ventricle into the lungs; and after passing through these it is emptied into the left ventricle: thus the heart opens the lungs. This it does through the pulmonary arteries and veins. The lungs have bronchial tubes which ramify, and at length end in air-cells, into which the lungs admit the air, and thus respire. Around the bronchial tubes and their ramifications there are also



arteries and veins called the bronchial, arising from the vena azygos or vena cava, and from the aorta. These arteries and veins are distinct from the pulmonary arteries and veins.

From this it is evident that the blood flows into the lungs by two ways, and flows out from them by two ways. This enables the lungs to respire non-synchronously with the heart. That the alternate movements of the heart and the alternate movements of the lungs do not act as one is well known. Now, inasmuch as there is a correspondence of the heart and lungs with the will and understanding (as shown above), and inasmuch as conjunction by correspondence is of such a nature that as one acts so does the other, it can be seen by the flow of the blood out of the heart into the lungs how the will flows into the understanding, and produces the results mentioned just above (n. 404) respecting affection for and perception of truth, and respecting thought. By correspondence this and many other things relating to the subject, which cannot be explained in a few words, have been disclosed to me.

Whereas love or the will corresponds to the heart, and wisdom or the understanding to the lungs, it follows that the blood vessels of the heart in the lungs correspond to affections for truth, and the ramifications of the bronchia of the lungs to perceptions and thoughts from those affections. Whoever will trace out all the tissues of the lungs from these origins, and disclose the analogy with the love of the will and the wisdom of the understanding, will be able to see in a kind of image the things mentioned above (n. 404), and thereby attain to a confirmed belief. But since a few only are familiar with the anatomical details respecting the heart and lungs, and since confirming a thing by what is unfamiliar induces obscurity, I omit further demonstration of the analogy. (*DLW* 405)

By means of this correspondence many arcana relating to the will and understanding, thus also to love and wisdom, may be disclosed. In the world it is scarcely known what the will is or what love is, for the reason that man is not able, by himself, to love, and from love to will, although he is able as it were by himself to exercise intelligence and thought; just as he is not able of himself to cause the heart to beat, although he is able of himself to cause the lungs to respire.

Now because it is scarcely known in the world what the will is or what love is, but it is known what the heart and the lungs are,—for these are objects of sight and can be examined, and have been examined and described by anatomists, while the will and the understanding are not objects of sight, and cannot be so examined—therefore when it is known that these correspond, and by correspondence act as one, many arcana relating to the will and understanding may be disclosed that could not otherwise be disclosed; those for instance relating to the conjunction of the will with the understanding, and the reciprocal conjunction of the understanding with the will; those relating to the conjunction of love with wisdom, and the reciprocal conjunction of wisdom with love; also those relating to the derivation of love into affections, and to the consociation of affections, to their influx into perceptions and thoughts, and finally their influx according to correspondence into the bodily acts and senses. These and many other arcana may be both disclosed and illustrated by the conjunction of the heart and lungs, and by the influx of the blood from the heart into the lungs, and reciprocally from the lungs into the heart, and therefrom through the arteries into all the members, organs and viscera of the body. (DLW 385)

In other numbers Swedenborg goes into detail for each of these propositions. For example, in numbers 390 and 391, he describes his experiments with angels in which they gradually withdraw and restore the respiration of his lungs so he may observe directly the sequence of events which the dying go through. It is thus that in number 392 Swedenborg announces his discovery of the cardiac and pulmonic movements of the brain individually, and of societies generally, as the two universal movements imposed by everything from the action within their inmost of the spiritual Sun from which they all have their origin. In number 397 Swedenborg reveals the existence of “the divided mind,” that is, our ability to separate the affective and the cognitive states so that they no longer fully correspond to each other, a state that disturbs their functioning and ultimately leads to total degradation and spiritual insanity, which lead to a life of fantasy and delusion and irrationality in a frame of mind called hell or infernal.

Love or the will prepares all things in its own human form, that it may act conjointly with wisdom or the understanding. We say, will and under-

standing, but it is to be carefully borne in mind that the will is the entire man; for it is the will that, with the understanding, is in first principles in the brains, and in derivatives in the body, consequently in the whole and in every part (see above, n. 365-367). From this it can be seen that the will is the entire man as regards his very form, both the general form and the particular form of all parts; and that the understanding is its partner, as the lungs are the partner of the heart. Beware of cherishing an idea of the will as something separate from the human form, for it is that same form.

From this it can be seen not only how the will prepares a bridal chamber for the understanding, but also how it prepares all things in its house (which is the whole body) that it may act conjointly with the understanding. This it prepares in such a way that as each and every thing of the body is conjoined to the will, so is it conjoined to the understanding; in other words, that as each and everything of the body is submissive to the will, so is it submissive to the understanding. How each and every thing of the body is prepared for conjunction with the understanding as well as with the will, can be seen in the body only as in a mirror or image, by the aid of anatomical knowledge, which shows how all things in the body are so connected, that when the lungs respire each and every thing in the entire body is moved by the respiration of the lungs, and at the same time from the beating of the heart.

Anatomy shows that the heart is joined to the lungs through the auricles, which are continued into the interiors of the lungs; also that all the viscera of the entire body are joined through ligaments to the chamber of the breast; and so joined that when the lungs respire, each and all things, in general and in particular, partake of the respiratory motion. Thus when the lungs are inflated, the ribs expand the thorax, the pleura is dilated, and the diaphragm is stretched wide, and with these all the lower parts of the body, which are connected with them by ligaments therefrom, receive some action through the pulmonic action; not to mention further facts, lest those who have no knowledge of anatomy, on account of their ignorance of its terms should be confused in regard to the subject. Consult any skillful and discerning anatomist whether all things in the entire body, from the breast down be not so bound together, that when the lungs expand by respiration, each and all of them are moved to action synchronous with the pulmonic action.

From all this the nature of the conjunction prepared by the will between the understanding and each and every thing of the human form is now evident. Only explore the connections well and scan them with an anatomical eye; then, following the connections, consider their cooperation with the breathing lungs and with the heart; and finally, in thought, substitute for the lungs the understanding, and for the heart the will, and you will see. (DLW 403)

In number 379 Swedenborg reveals that every individual receives influx that gives the cognitive organ the ability to perceive common sense by insight and is called “thinking from common perception.” This ability allows every normally functioning individual from any society or educational level to perceive and comprehend spiritual truths, that is, to be wise. Synchronously with the influx of common perception from within, there is a corresponding “efflux” from the senses to the brains and their tiny cortical cells, each of which is like a brain unto itself, hence, made up of billions of substructures! At the edge between the finest substances of nature in the cortical minibrain cell the first contact of correspondence between the spiritual and the natural takes place. The influx of common perception from the spiritual brain encounters the efflux of sensory modulation stemming from seeing something or hearing an utterance. The rationality coming from the common perception through spiritual influx is thus synchronous to the physicality efflux associated with the sensory stimulus, giving rise to the consciousness of meaning and coherence.

## **6. All phenomena are human**

This is the crowning premise of scientific dualism and, in my opinion, represents the deepest level of scientific revelation. Since deepest means highest in the Swedenborgian paradigm, the crowning affirmation from which all other affirmations come is that only the human form exists. This is an astonishing revelation and makes the most ardent humanist appear mild in comparison. Just think: rocks, geometric shapes, stars, and atoms—all are in the human form.

All phenomena are human because the law of providence and permissions restricts a phenomenon's existence to its ability to serve a human end or purpose. Any substance, form, or function that does not have a human purpose, does not exist. Further, the purpose or end is synchronously present in its cause, and through that in its effects, in accordance with the law of vertical degrees. Therefore every object and property in the natural universe must have a human purpose and must have its interior structure in the human form (AC 3624-3649; SD 4775).

It is on this account that the cosmos has the shape of the human body, as witnessed by Swedenborg, and that a human being is a microcosmos, as spoken of by the ancients. The extent to which this is true in detail was not known until Swedenborg's revelations. For more than two decades Swedenborg chronicled in his diary the daily excursions he experienced into the spiritual realm, the manner of his "travels" through those realms, and what he witnessed there. He gives a full account of his spiritual journeyings in his twelve-volume *Arcana Coelestia* and in his six-volume *Spiritual Diary*. He fully confirms that not only are the spiritual land masses and regions in the human external shape, but also in the internal organs of the body. In fact, Swedenborg used his expert knowledge of anatomy and physiology (as in EAK, all 3 volumes) to localize himself within the Grand Human, or spiritual land masses and oceans. He would refer to his location as "in the province of the eye" or "in the province of the nose" and so on. About the latter, Swedenborg says:

Those however who relate to the interiors of the nostrils are in a more perfect state of perception than those (just treated of) who relate to their exteriors. (...) [2] Finally I observed a bright white light, and was told that here were the abodes of those women who constitute the province of the internal nostrils (for they were of the female sex); and that the clear-sightedness of perception of those who are there, is represented in the world of spirits by such apertures. For the spiritual things in heaven are represented in the world of spirits by natural things, or rather by such things as are similar to those which are in nature. It was afterwards given me to speak with them, and they said that through these representative apertures they can see with exactness what is being done below, and that

the apertures appear turned to those societies which they are occupied in observing. And as they were then turned to me, they said that they could observe all the ideas of my thought, and also those of the people around me. They said moreover that they did not merely observe the ideas, but also saw them represented in many ways, as for instance those of the affection of good by correspondent little flames, and those of the affection of truth by variations of light. They added that they saw certain angelic societies with me, and their thoughts represented by objects of many colors, by crimson dyes such as we see on painted curtains, and also by the colors of the rainbow on a darker ground, and they said that they thus perceived those angelic societies to be of the province of the eye.

[3] Afterwards other spirits were seen who were cast down from thence and scattered about hither and thither, of whom they said that they were such as had insinuated themselves among them for the purpose of observing something, and of seeing what was going on below, but with an insidious purpose. This casting down was observed whenever angelic choirs approached and entered into conversation with me. As regards those who were cast down, they said that they relate to the mucus of the nostrils, and that they are dull and stupid, and also devoid of conscience, thus altogether devoid of interior perception. The woman who was seen (as mentioned above) signified such female ensnarers. With these also it was given me to speak, and they expressed their surprise at any one's having conscience, being quite ignorant of what conscience is; and when I said that it is an interior perception of what is good and true, and that to act contrary to it causes anxiety, this they did not understand. Such are those who correspond to the mucus which infests the nostrils and is therefore ejected.

[4] There was afterwards shown me the kind of light in which those live who relate to the interiors of the nostrils. It was a light beautifully varied with veins of golden flame and silver light, the affections of good being represented therein by the veins of golden flame, and the affections of truth by the veins of silver light. I was also shown that they have apertures opening at the side, through which they see as it were a sky with stars in the blue, and I was told that in their chambers there is a light so great as to immeasurably surpass the noonday light of this world. I was further told that the heat there is like that of early summer on earth,

and also that these angels of the female sex are accompanied by little children of some years who are unwilling to stay when the female ensnarers (or mucuses) arrive. Numberless such representatives appear in the world of spirits; but these were representative of the perceptions in which are those female angels who correspond to the sense of smell in the interiors of the nostrils. (AC 4627)

About the relation between anxiety and the stomach, Swedenborg notes this:

As solicitude about things to come is what produces anxieties in man, and as such spirits appear in the region of the stomach, therefore anxieties affect the stomach more than the other viscera. It has also been given me to perceive how these anxieties are increased and diminished by the presence and removal of the spirits referred to. Some anxieties were perceived interiorly, some more exteriorly, some more above, and some more below, according to the difference of such solicitude as to origin, derivation, and direction. It is for this reason also that when such anxieties take possession of the mind, the region about the stomach is constricted, and at times pain is felt there, and the anxieties also seem to rise up from there; and hence also it is that when man is no longer solicitous about the future, or when everything turns out well for him so that he no longer is fearful of any misfortune, the region about the stomach is relieved and expands, and he feels delight. (AC 5178)

A new scientific revelation [one about natural things] that is of deep significance to the medical sciences is that physiological processes are dependent on the corresponding synchronous action of spiritual societies in the Grand Human regions. In the number just quoted there is the revelation that stomach ulcers are processes dependent on the activity of spirits that dwell in the region of the stomach in the Grand Human regions of the spiritual world. Further, it is revealed that activity by spirits in the stomach region of the Grand Human are felt through the mediation of anxieties in physiological processes in our stomach. There is thus a correspondence between the mental quality of a society in the Grand Human, its anatomical location there, and the plane of our mind and region of our

body. Christen Blom-Dahl (1996) has collected many examples from Swedenborg's writings where a connection is indicated between anatomical location or function on the one hand, and the mental quality of spiritual societies in the corresponding organ in the Grand Human. Blom-Dahl has extracted several instances in which the mental quality of spirits is described in terms that have been independently used by medical researchers in the identification and description of viruses that are organ- or action-specific. According to Blom-Dahl many more such revelations lie hidden in the Writings to be discovered by future generations.

Worcester (1931) has compiled many facts regarding spiritual-physiological correspondences found in Swedenborg. Spirits who live in the bile region are those who have despised spiritual and heavenly things (p. 105) and those who are in the region of the liver produce in us a desire and capacity to assimilate knowledge (p. 105). Those who live in the region of the kidneys and bladder are described by Swedenborg, as follows:

They who constitute the province of the kidneys, ureters, and bladder in the Grand Human, are of such a disposition that they desire nothing more than to explore and to search out the quality of others; and there are some of them who are eager to chastise and to punish, provided there is some justice in the case. The functions of the kidneys, ureters, and bladder are of this kind; for they explore the blood thrown into them to see whether there is any useless and hurtful serum in it, which they separate from what is useful, and then correct it; for they drive it down toward lower positions, and on the way and afterward they agitate it in various ways. These are the functions of those who constitute the province of the parts in question. But the spirits and societies of spirits to which the urine itself, especially fetid urine, corresponds, are infernal; for as soon as the urine is separated from the blood, although it is in the little tubes of the kidneys or within the bladder, still it is out of the body; for what has been separated no longer circulates in the body, and therefore does not contribute anything to the coming into existence and subsistence of its parts. (AC 5381)



## EXTRACTING DUALIST CONCEPTS FROM SWEDENBORG'S WRITINGS

Besides my published work on Swedenborg, there is a growing body of scientific work by a few other scientists who have overcome the academic culture of resistance in their field by stepping into the new pool and making use of dualist concepts. Among those who have published their views in recent years I can mention a few I am familiar:

In the social sciences: Wilson Van Dusen, Eugene Taylor, Jane Williams-Hogan, Robert Larsen, Robert Kirven, Daniel Goodenough;

In the humanities: Ray Silverman, George Dole, David R. Simons, William and Lee Woofenden, Inge Jonsson, Lars Berquist;

In the biological and medical sciences: Linda S. Odhner, Allen Bedford, Horand K. Gutfeldt, Stephen Cole, Christen Blom-Dahl;

In the natural sciences: Ian Thompson, Herbert Dingle, Erland J. Brock, Gregory Baker, Gustaf Arrhenius.

Others will be found in the pages of *The New Philosophy*, as well as publications by the Swedenborg Foundation and New Church organizations and institutes around the world. An especially noteworthy publication is the volume published in 1988 to mark the tricentennial of the birth of Swedenborg. Published by The Academy of the New Church in Bryn Athyn, Pennsylvania, it was edited by Erland Brock with the assistance of Bruce Glenn, Carroll Odhner, J. Durban Odhner, Cynthia Walker, and Jane Williams-Hogan.

Here is a table showing some of the dualist concepts for psychology and biology that I extracted from *Arcana Coelestia* (AC) and *Divine Providence* (DP). Similar extractions are possible from Swedenborg's other works (see for example James and Nahl, 1982).

Arcana Coelestia Numbers (AC)		Divine Providence Numbers (DP)	
Cognitive science	1460; 1636; 1725; 3035; 3128; 3224; 3512; 5075; 6199; 8885	Abortion	324
Dream analysis	6319	Classical conditioning	118
Scientific dualism	8882; 8904	Darwinism	183; 206; 232; 233; 298
Ethno-methodology	3092; 3167	Emotional contagion	296; 327
Gender differences	1468; 1469; 1484	Gestaltpsychology	279; 314
Genetic culture	6323; 6344	Humanism	117
Genetics	3469; 8042	Individual differences	298; 327
Interior memory	1504; 2256; 2474; 2492; 3223; 9683	Laws of learning	227; 326
Neurophysiology	2252; 2786; 2796; 4325; 4410; 4326; 6200	Mental health	2; 265
Pedagogy	1255; 1495; 1542; 1895; 2533; 5126; 6368; 10057; 10076	Neuro-physiology	195; 220; 297; 314; 319; 379
Phenomenology	1526; 1532; 1542; 2994	Psychobiology	181; 195; 196; 227; 279; 308; 314; 319; 326

Pragmatism	1163; 2475	Spiritual psychology and empiricism	153; 156; 168; 181; 196; 197; 209; 265; 278; 279; 298; 299
Psychobiology	1533; 2016; 2025; 2796; 3161	Psychology and religion	254; 299; 300; 326; 327
Psychotherapy	1440; 1504; 1584; 1585; 1947; 2260; 2474; 2733; 2892; 3223; 3509; 4063; 5044; 6225; 6324; 5044; 8478	Unconscious	168; 184; 206; 251; 296
Synechdoche	2209		
Vertical community	2556; 3110; 3131; 4067; 5861; 6193		

This listing represents a conceptual identification I was able to make between dualist science in Swedenborg and contemporary concepts in psychology and social science. In the future, I intend to develop the theoretical rationales that justify these identifications so that it may be confirmed by consensus.

### **“IT IS NOT KNOWN” REVEALED**

Swedenborg uses the expression “it is not known that” hundreds of times in the twelve-volume *Arcana Coelestia* and the sixteen works following it (1747–1771). Other expressions indicating a similar meaning include:

- it is not yet known that . . .
- be it known that . . .
- that this is the case is an arcanum not known in the world.
- it has hitherto remained unknown that . . .

- that will now be revealed for the first time.
- that has not entered the mind of anyone until now.
- no one can know that . . .
- . . . yet the contrary is true.

If we were to add them all and analyze their content, it would give us a database of thousands of items of knowledge for future research and development in dualist science. Swedenborg marks these places explicitly to show where the gap exists between material and dualist science. I took a sample of these which will be found here. A preliminary analysis of a sub-sample of seventeen passages (or one-third of the original sample), pin-points the following dualist concepts that are “not known” in materialist science:

1. **Water corresponds to truth**

*AE 71.* As it is not yet known that “waters” in the Word signify the truths of faith and the knowledges of truth, . . .

2. **Natural life by itself is a state of sleep**

*AE 187.* Spiritual life is to moral life, apart from spiritual life, as wakefulness is to sleep, or as noonday light is to the evening, yea, to darkness. But that this is so is not known or perceived by those who are in natural life alone . . .

3. **Faith separate from charity does not save**

*AE 236.* That those who are in the doctrine of faith alone and justification by faith are such, or believe themselves to be so, is not known to those who are not in that faith, although they are among them; but that still they are so it has been given me to know by much experience.

4. **Rock corresponds to God and to faith or truth**

*AE 411.* It is known in the church that this “rock” signified the Lord; but it is not known that it had this signification because “rock” in the Word signifies the Divine truth that proceeds from the Lord; this was why Moses and Aaron were commanded to speak to it, . . .

5. **Good has primacy over truth**

AE 434. Because good has no quality until it is formed into truths, and without quality nothing is perceived, so it is not known that good is first, and is the first born; for it is good that is first conceived from the Lord with man, and it is brought forth through truths, in which good is in its own form and effigy.

6. **Existence of the law of permissions**

AE 638. For it is not known that to avert the evil of punishment would be contrary to order, for if it were averted evil would increase until there would be no good remaining.

7. **We are dual citizens: body in physical world, mind in spiritual world**

AC 1889. The reason why this subject is not of easy explication, is that at this day it is not known what the internal man is, what the interior, and what the exterior. When the rational is spoken of, or the rational man, some idea can be formed of it; but when it is said that the rational is the intermediate between the internal and the external, few if any comprehend it.

8. **Charity determines the faith one has**

AC 2435. The cause of there being such a controversy was that it was not known, as even at this day it is not known, that a man has only so much of faith as he has of charity; and that when a man is being regenerated, charity presents itself to faith, or what is the same, good presents itself to truth, and insinuates itself into it and adapts itself to it in every particular, causing faith to be faith.

9. **Existence of vertical community—we are never alone**

AC 4062. Yet as it is not known, at least is not acknowledged at heart, that there are spirits and angels around man, and that his internal man is in the midst of them, and is thus ruled by the Lord, it is little believed, although said.

**10. Spiritual growth depends on living according to God's precepts one knows**

DLW 248. It is not known that a natural man becomes spiritual by the opening of some higher degree in him, and that such opening is effected by a spiritual life, which is a life conformed to the Divine precepts; and that without a life conformed to these man remains natural.

**11. In what way a person is a microcosmos**

DLW 319. By the ancients man was called a microcosm, from his representing the macrocosm, that is, the universe in its whole complex; but it is not known at the present day why man was so called by the ancients, for no more of the universe or macrocosm is manifest in him than that he derives nourishment and bodily life from its animal and vegetable kingdoms, and that he is kept in a living condition by its heat, sees by its light, and hears and breathes by its atmospheres. Yet these things do not make man a microcosm, as the universe with all things thereof is a macrocosm. The ancients called man a microcosm, or little universe, from truth which they derived from the knowledge of correspondences, in which the most ancient people were, and from their communication with angels of heaven; for angels of heaven know from the things which they see about them that all things of the universe, viewed as to uses, represent man as an image.

**12. Will and understanding are distinct**

DLW 361. That every man has these two, will and understanding, and that they are distinct from each other, as love and wisdom are distinct, is known and is not known in the world. It is known from common perception, but it is not known from thought and still less from thought when written out; for who does not know from common perception that the will and the understanding are two distinct things in man?

Additionally, "If you take away willing from understanding you understand nothing" (DP 96)

**13. Love does nothing without wisdom**

*DP 4.* Love apart from union with wisdom cannot do anything (n. 401–403). Love does nothing unless in conjunction with wisdom (n. 409, 410). Spiritual heat and spiritual light, in proceeding from the Lord as a Sun, form one, as the Divine Love and the Divine Wisdom in the Lord are one (n. 99–102). The truth of this proposition is evident from what has been shown in these passages; but as it is not known how two things distinct from one another can act as one, I will here show.

**14. What heaven is**

*DP 27 [3].* Since, however, it is not known what heaven is in general, that is, in a community of persons, and what it is in particular, that is, in the individual; and what heaven is in the spiritual world and what it is in the natural world; and yet it is important to know this, because heaven is the end of the Divine Providence, I will present this subject with some clearness in the following order.

**15. How Divine Providence operates**

*DP 70.* It is well known that there is a Divine Providence, but it is not known what its nature is. This is not known because the laws of the Divine Providence are interior truths, hitherto concealed within the wisdom of the angels; but they are now to be revealed in order that what belongs to the Lord may be ascribed to Him, and what does not belong to man may not be ascribed to any man.

**16. Natural mind sees nothing of the spiritual**

*DP 205.* It is not known that all who lead an evil life interiorly acknowledge nature and human prudence alone, because of this general covering by which it is hidden from view.

**17. Evils come in bundles**

*DP 296.* It is not known that in every evil there are innumerable things, exceeding in number the fibers and vessels in a man's body. For a wicked man is a hell in its least form; and hell consists of myriads of myriads of spirits, and every one there is in form like a man, although a monstrous one, in which all the fibers and vessels are inverted.

## SCIENTIFIC PUZZLES FOR DUALIST SCIENCE

Dualist science already exists in a universal form in the Writings of Swedenborg. For the paradigm reversal to take place in actuality and historically, each academic and research discipline needs to prepare the intellectual climate by mining the Writings and extracting from them the method and theory that is viable for that discipline. The initial phase must be taxonomic in which the concepts are built up and defined within the context of that discipline. Once there exists a viable conglomerate of dualist concepts defined within a dualist taxonomy, we can proceed to phase two, which consists of hypothesis testing and theory building through it. In this way dualist science can mature and begin to succeed in applications and uses.

My taxonomic efforts in constructing dualist concepts for psychology can be examined elsewhere (*consult James references below*). The table above is such an example, as well as the listing and categorizing of the passages marked as “this is not known” as discussed above. An additional method of building the taxonomy of concepts needed for dualist science consists in making lists that identify dualist concepts given in the Writings that are puzzling to our normal scientific reasoning, and thus, represent bridging areas for crossing from monism to dualism. These concepts need to be justified and discussed for the sake of arriving at a consensus, and I hope this might be such a stimulus. The following concepts appear in many places throughout the Writings (to be referenced exactly in the future), but especially in *Divine Love and Wisdom (DLW)* and *Divine Providence (DP)*.

1. The *infinite is within the finite*, not the other way around.
2. The *simpler substances are more perfect* (have more qualities and uses) than the compound, not the other way around.
3. The form of the whole, or largest, is fully contained within the smallest, and throughout, a principle called *Synechdoche*.
4. Perfection or complexity of structure increases as we observe and describe *smaller and smaller objects*.



5. We have *no power of our own* but enjoy continuous influx of it, moment by moment. (Also: We are most free—in feeling and in actuality—when we acknowledge and believe this proposition.)
6. We are born with the natural mind intact and the spiritual mind yet to be *opened through spiritual growth and effort*. Until this opening we are not human but animal. If this does not occur before death, we remain natural forever, which is the life of insanity in hell.
7. It is not religious identification or faith that causes the opening of the spiritual mind, but our daily efforts at thinking and willing in accordance with the *religious and moral precepts of life* known to us (character formation). Further: we must have a love for understanding truths of faith in order to become aware of their existence and use.
8. *True faith* is not blind but rational or scientific (dualist; *Nunc licet*—see TCR 508). Blind faith, or faith by persuasion, is external and does not have anything spiritual within it.
9. The *parental-filial relationship* is from charity, not blood, and does not survive in the spiritual state.
10. God is the *one infinite* in whom all things are distinctly one. The infinite is thus single and can create all things from its own substance by compounding this perfect substance and rendering it less and less perfect as it approaches the natural mineral and gravitational state. Yet the infinite remains within the finite thus created (cf. propositions 1 to 4 above).
11. God, or the One Infinite, is present in all things and in all space and time through *vertical degrees* and governs all things through functional interactions called laws of correspondences. Thus, every thing that exists is distinct and unique, and has a threefold structure—its external matter or energy that serves some potential use to humans, its interior quality or spirit (wisdom) that holds it in existence, and its inmost quality or conatus that is from the substance of love (heat of the spiritual Sun). Every phase of successive development (etiology) is

fully present synchronously in the form of vertical degrees of causation or determination.

12. The *science of correspondences* is a database of scientific revelations contained in the Writings. Through a tabulation of the entire series of correspondences given in the literal Latin text of the Writings we are given a scientific methodology for discovering the laws of Divine management, that is, the laws of nature and spirit. Scientific theory based on the science of correspondences will afford us greater control over natural and psychological phenomena such as food production, education, and mental health.
13. Every object and process in the natural universe has the *human form*, including people, animals, atoms, and galaxies. This is because of the existence of vertical degrees (see proposition 12 above).
14. Since regeneration, or the opening of the spiritual plane of the mind depends on character reformation (see proposition 7 above), we have a *divided mind*. Our cognitive functioning (i.e., thinking and reasoning) is capable of being elevated to spiritual light or perception (i.e., to understand spiritual things), while at the same time, our affective remains at the natural level of functioning. When we strive to love and live by these spiritual truths, then we bring the affective in alignment with the cognitive, and thus we are no longer a divided mind (i.e., we are being regenerated). Those who pass on into the afterlife with a divided mind will have their cognitive lowered to their affective, thus restoring unity to the person.
15. In *the afterlife*, people in hell freely choose to remain there; they are not kept there for punishment. If they visit heaven, they fall into internal tortures and swoonings. Thus, those in hell are spiritually adapted to live in one delusion or another, in total insanity. The varieties of insanity in the hellish societies are as numerous as the varieties of wisdoms in the heavenly societies, the two sets being related to each other by specific opposition. Whether we are insane in hell or wise in heaven depends on the character we built for ourselves while in the

physical body—hence the vast importance of daily life in accordance with good and truth, which is possible only if we shun our evils as spiritually injurious, a matter of heaven or hell. Thus, we need to live daily life by calculating every choice we make in terms of our character building either for heaven or for hell. This kind of calculation alone makes the spiritual life.

16. *Evil is inherited* in our personality traits and remains with us unless we put it aside through temptations. These are spiritual battles specifically designed for each individual through life's circumstances such as good luck, bad luck, accidental events, unexplained success, inherent characteristics, favorable opportunities, chance associations, fate, the inevitable, and so on. Having a temptation means fighting for the good and the true in the face of doubts and inherited lusts that try to destroy the spiritual or moral good and true in us, that is, our conscience. Overcoming in temptation is a victory whose consequence is opening of the spiritual functioning held shut by the presence in our mind of the doubts and inherited lusts. By thousands of such individual victories and openings, our spiritual life is born and grows in preparation for heavenly life.
  
17. The *negative bias in science* is a result of the purely natural thinking of the individual whose spiritual mind has not yet been opened. In contrast, dualist science sees the relation between the natural and the spiritual. From this superior perspective, or reasoning process, one can see the irrational concepts, or falsities, of the merely natural or monist science. The following concepts from materialist or monist science are marked as **irrational** by the Writings (the reason for their falsity is given in parentheses following each):
  - (a) That vacuum is the fabric of space (false since vacuum is nothing and nothing cannot be the basis of any thing).
  - (b) That space and time are infinite (false since anything that has a beginning cannot be infinite; also: there can be only one infinite).
  - (c) That the universe has continuous physical degrees only (false since in fact the physical is the outermost of the three vertical degrees)

(d) That function can exist without its own substance, for example, that the brain gives rise to the mind or, that mental phenomena are emergent pseudo-phenomena arising from the brain (false since the mind, or thoughts and feelings, are constituted of spiritual substances and would be nothing without these)

(e) That the evolution of the galaxies and of living species is blind, that is, is shaped by forces unrelated to human love and wisdom (false since all phenomena at the natural level have a prior spiritual cause, and this is from influx from the spiritual Sun which is love and wisdom in substance)

(f) The cognitive domain in human behavior is primary, the affective is secondary, for example, we think something, then we feel a reaction (false since we could not think anything without first feeling something—thus, the cognitive is the outside form of the affective that rules it from within)

(g) That admittance to heaven depends on Divine forgiveness from faith alone or predestination from Divine favor (false since heaven is not a place but a state of mind and this depends on the *individual's cumulative life, not lack of Divine forgiveness*)

<b>The Two Main Branches of Dualist Science</b>		
	<b>SECULAR DUALISM</b>	<b>RELIGIOUS DUALISM</b>
God =	First cause or substance in which all things are infinitely one; exerts inmost control apart from space and time	The Divine Person in whom infinite things are one; the Incarnate God-Messiah, the Divine Human from eternity born in time as Jesus Christ and made one with the Divine

Sin =	Inherent propensity of organized substances to act in a self-destructive or oppositional direction	Inherited love for evil affections or lusts that associate us with societies in hell until we either break the association willingly in this life, or join them fully in the other life
Love and wisdom or good and truth =	The two most basic spiritual substances that constitute the other "compound" substances	The inner quality of the Divine Human that streams out and into our mind as influx where it is transformed and adapted to every individual as affections and thoughts that appear to them as their own
Revelation = (Bible and Writings)	Inspired insights containing truths, but also errors that are visible to all who reason accurately and with the latest scientific advances and best intellectual traditions	Sacred Scriptures; the Word; God; infallible and infinite arcana in their inner sense, but obscure in the literal; understanding limited to life according to truth

### CONCLUSION

In evaluating Swedenborg two verdicts stand out, depending on whether or not you allow the concept of scientific revelation. Those who do not allow the possibility of Divine revelation of facts about reality have no logical choice but to conclude that Swedenborg was deranged and delusional. This conclusion is forced on their minds because of Swedenborg's repeated and relentless claims that appear somewhat similar to those of delusional minds: namely, that they talk to spirits generally, that they converse with people from the past like the Apostles, or the Prophets, or men of history like Aristotle, Newton, Napoleon or some

other king or general, and so forth. Swedenborg has maintained these claims about himself not just once but has described in detail his daily encounters with people who had lived on this planet and on many other planets and star systems. Finally, this one: that he spoke with Jesus or God Himself, face to face. Given these claims there is no other logical choice than to judge him insane—unless you accept the possibility of Divine revelation about the natural world.

Those who do, only need to carefully examine Swedenborg's writings to determine whether this could be it! Many have since his passing on in 1771. Here, it was my turn as a contemporary scientist operating around the year 2000, to give an account of how I can modify the materialistic or monistic science I practice professionally, so as to align it with the scientific revelations in Swedenborg. This new paradigm is what I call "dualist science" and is based on "substantive dualism." Swedenborg has provided theory, methodology, and data for the new paradigm. There are no technical or theoretical barriers left to inhibit the progress of dualism in science.

Those who are in the New Church celebrate the advent of "rational faith" in the Writings of Swedenborg. To them the well known expression "Nunc licet" means the end of blind faith and persuasive faith which prevent the opening of one's rational and spiritual life:

[4] Since then, the dogmas of the present Christian churches have not been formed from the Word, but from self-intelligence, and therefore from falsities, and also have been confirmed by certain passages from the Word; by the Lord's Divine Providence the Word among the Roman Catholics has been taken from the laity, and among Protestants has been opened, and yet has been closed by their common declaration that the understanding must be held in obedience to their faith.

[5] But in the New Church the contrary is the case; there it is permitted to enter with the understanding and penetrate into all her secrets, and to confirm them by the Word, because her doctrines are continuous truths laid open by the Lord by means of the Word, and confirmations of these truths by rational means cause the understanding to be opened above more and more, and thus to be raised into the light in which the angels of heaven are. That light in its essence is truth, and in that light acknowledg-

ment of the Lord as the God of heaven and earth shines in its glory. This is what is meant by the inscription “Nunc Licet” over the door of the temple, and also by the veil of the sanctuary before the cherub being raised. For it is a canon of the New Church, that falsities close the understanding, and that truths open it. (TCR 508)

To me, it also means *the birth of dualist science*. What is rational faith but a rational understanding of reality, of creation, of the laws of Divine management and governance of every single phenomenon. The laws by which we are regenerated and grow to be spiritual beings are fixed, describable, and applicable to individual and society in all daily endeavors.

The Writings of Swedenborg are not only the Word of the Second Advent for the New Christian Church; they are also the database of scientific revelations that give life and direction to the new dualist science—its theory and methodology for the third millennium. □

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