

SWEDENBORG'S SCIENCE MEETS HIS THEOLOGY

Lisa Hyatt Cooper

I'm here to offer some real-life examples of places in Swedenborg's theological works where it's been useful to have information from his scientific and philosophical works. Not all of them are mine; I've borrowed some from other translators. And not all of them are places where we've actually *found* something in Swedenborg's pretheological works to explain something in the theological works, but they're places where I think we *could* eventually find something useful.

The latest issue of the Swedenborg Foundation newsletter, *Logos*, contained a brilliant example of why it's useful to know something from Swedenborg's pretheological works in translating his theological works. This example comes from *Divine Providence* 6:1 which says:

It is widely recognized that there is only one substance that is the first and is the basis of everything, but the nature of that substance is a mystery. People think that it is so simple that nothing could be simpler, that it is like a dimensionless point, and that dimensional forms emerge from an infinite number of such points. However, this is an illusion arising from spatial thinking; spatial thinking makes the smallest element look like this. The truth is, though, that the simpler and purer anything is the greater and fuller it is. This is why the more deeply we look into anything, the more amazing, perfect, and beautiful are the things we see; so in the first substance of all there must be the most amazing, perfect, and beautiful things of all.

It's the first sentence that sends an annotator looking for other information: "It is widely recognized . . ." Who were the writers recognizing that

¹Lisa Hyatt Cooper, a graduate of what is now the Bryn Athyn College of the New Church, is translating *Arcana Coelestia* (English title *Secrets of Heaven*) for the Swedenborg Foundation's New Century Edition. Her previous work includes a role in Durban Odhner's edition of *Spirituales Experientiae* (English edition titled *Spiritual Experiences*), preparation of a Latin edition of *Earths in the Universe*, a simplified translation of Swedenborg for children, acting as consultant to John Elliott on the last half of his translation of *Arcana Coelestia*, and supplying translations for Don Rose's *Debates with Devils*. Her remarks were prepared for extemporaneous delivery and intended to illustrate points made by the other speakers.

one substance is the first and the basis of everything? Stuart Shotwell's *Logos* article goes into a long history of the philosophers who contributed to thought on the subject. The footnote that will appear in *Divine Providence* focuses on Leibniz, who was probably the most direct predecessor to Swedenborg championing this idea. But in the end it turns out that the main person Swedenborg is talking about is a young scientist from the early 18th century named Emanuel Swedenborg. The footnote ends with this statement:

But Leibniz and his followers were not the only targets of Swedenborg's critique: he is clearly referring to his own efforts to develop an atomic theory in his 1734 scientific treatise *Principia*. . . . His basic building block there was not a monad but a "first" or "natural" point "produced by motion from the Infinite". . . . He described it in almost the exact terms used in the present passage—as something "so very simple that nothing could be more so. . . ."

George Dole, the translator of this quotation from *Divine Providence*, has asked whether it is easier in the spiritual world than here to dig one's elbow into one's own ribs.

The note was written by George Dole and Stuart Shotwell.

The previous example was from Swedenborg's philosophy; the next comes from his mineralogical studies. (My remaining examples are anatomical ones, which is the kind of question I've run into the most. I suspect that will continue to be the case throughout the translation, since Swedenborg uses a lot of comparisons with the human body in talking about theology.)

This example comes from *True Christian Religion*—or *True Christianity*, as it's being titled in the New Century Edition. Sections 43 and 44 are talking about divine love and divine love's effect on the world. They start by defining that love as the desire to make others happy, offering examples in the human world, in the vegetable world, and in the mineral world. In the vegetable world divine love is what causes plants to bud, flower, and fruit, because for a plant, that is happiness, essentially. Next it says that there are even representations of the working of this love in various things in the mineral kingdom, and then (to translate the Latin

literally) it says examples are presented “in exaltations of them [the minerals] to uses, and from them, precious substances.”

The William Dick translation renders this as, “There, differences in kind and consequently in value are determined by the uses to which the minerals can be impressed,” which I don’t get much out of. I suspect the translator didn’t really know what was going on either.

Chadwick comes closer: “Specimens of this are to be seen in the exaltation of minerals into useful forms and the formation of gems.” He has a note explaining that exaltation is “a term of early chemistry for the transformation of elements into different forms, e.g. the formation of diamonds from carbon.”

Jonathan Rose tells me it’s even simpler than that. “Exaltation” is refinement, the refining process. I don’t think this has been studied in Swedenborg’s mineralogical works, but since his main business was mining, he must have something to say about it somewhere, and I expect something will come out of study of his pretheological works.

The third example is from a draft I’ve prepared of *Arcana Coelestia* (or *Secrets of Heaven*, as it will be called in the New Century Edition) section 847:2. This is talking about three kinds of spiritual trial. The first is a challenge to something we love, which Swedenborg calls a heavenly trial. The second is a challenge to something we believe, which he calls a spiritual trial. Then he says, “Earthly tribulation [the third kind] has nothing to do with the other two kinds, and it is not really a trial, or temptation, but merely anxiety rising out of an attack on people’s earthly kinds of love. The anxiety is stirred by misfortune, illness, and . . .” When I was reading the next part in Latin, I wasn’t sure what it was saying, but it looked as though it was speaking of a maladjustment or imbalance in the blood and the bodily fluids.

I asked Reuben Bell about this, and his reply is pretty much contained in a footnote that he wrote. (This is just a proposed footnote and may undergo changes before publication.) It says:

In *Dynamics of the Soul’s Domain*, . . . Swedenborg lists five qualities of the blood that determine the condition of the life it brings to the body, one of which is the blood’s constitution, or chemical integrity. When he speaks here of the morbid constitution of the blood [the translation Reuben

suggested and I accepted], he brings a progressive understanding of physiology as biochemistry to bear on his comments.

Swedenborg was operating far beyond the Hippocratic doctrine of the “four humors” governing the body’s state of health [which was what I had assumed]. With this model superceded by 16th Century Paracelsus’ “spygyric medicine” of external disease origins, and his own and others’ contribution to the disciplines of chemistry and histology, he knew much about the blood, lymph, cerebrospinal fluid, and the fluid that percolated within the tissues; and he was aware that the state of those fluids was dependent upon local chemical conditions. He was working from a surprisingly modern, biochemical model for the state of the fluids in the body, to which he added his own findings on the blood and its components.

This gives a sense of Swedenborg’s place in the history of these studies but also indicates where he differs from our modern understanding.

The final example is from *Divine Love and Wisdom* 407. It is talking about two kinds of circulation, which do not fit with modern medicine’s view of circulation. The two components are pulmonary circulation and bronchial circulation. Swedenborg says:

We can also see from people who have fainted that if the heart and the lungs are not working together we are deprived of both sensory and active life. When people have fainted, only the heart is working, not the lungs—breathing has been taken away. Everyone knows that people who have fainted are deprived of sensation and action.

It is the same with people who suffocate, whether by water or because of something that blocks their windpipe and closes off the lungs’ breathing passage. People then seem to be dead, having neither sensation nor action. Yet we know that the heart is still keeping them alive. They in fact return to both sensory and active life as soon as the blockages of the lungs are removed. In the meantime, blood has been making its circuit through the lungs, but only through the pulmonary arteries and veins, not through the bronchial arteries and veins; and these latter give us the ability to breathe.

It is the same with the inflow of love into discernment.

The note Reuben wrote for this says:

The notion that bronchial circulation ceases when respiration is forcibly curtailed is consistent with a mechanism for respiration Swedenborg proposes in *The Soul's Domain*, . . . in his unpublished manuscript . . . *The Fiber*, . . . and elsewhere in his scientific works. According to this model, the bronchial arteries run parallel to the pulmonary, and communicate with them at their deepest level; and it is through the bronchial veins that nourishing blood eventually reaches the muscles of respiration. This nourishment is a primary cause of respiration, apart from the secondary local stimulation of bronchial nerves by respiratory motion. In that sense it "gives us the ability to breathe." Interruption of the air supply would not at first greatly disturb pulmonary circulation, but would immediately degrade the quality of blood going to the muscles of respiration and cause their motion to cease. Though the growth of scientific knowledge since Swedenborg's time has outstripped the factual basis of the illustration he has chosen, the theological exposition remains clear.

And then he refers to a study by Lillian Beekman.

(In the question-and-answer session following the program Reuben re-emphasized that Swedenborg was mistaken in describing two parallel types of circulation, though it made sense within his own system and the knowledge available to him. The fact beautifully illustrates the point that familiarity with his scientific writing is necessary to an understanding of the theological passage.) □

