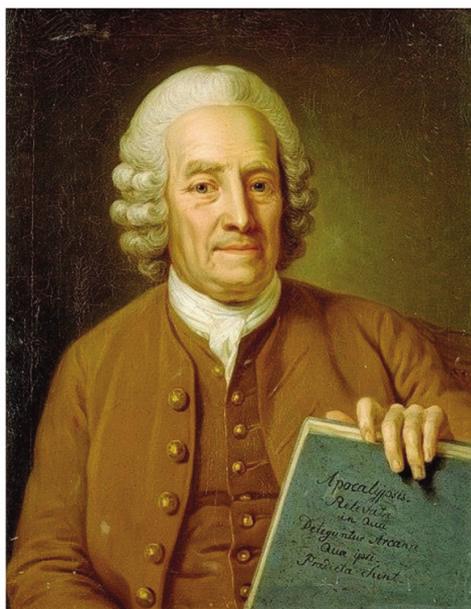


DOOR OF MY HEART: COMPARATIVE INTERNAL BREATHING IN YOGANANDA AND SWEDENBORG³

Eleanor Mariakali Schnarr⁴

"The Spine and the brain are the altars of God." ~ Paramahansa Yogananda⁵



Emanuel Swedenborg (1688-1772)



Paramahansa Yogananda (1893-1952)

INTRODUCTION

In this paper we will compare Emanuel Swedenborg's (1688-1772) practice of internal breathing to Paramahansa Yogananda's (1893-1952) kriya

3. Our Daily Bread - Resources for Spiritual Questers. spiritualquesters.org. Used with permission.

4. Eleanor Schnarr, artist, mystic, poet and theologian, is an accomplished artist and writer, and has taken clerical initiation in the Saiva Siddhanta Hindu sampradaya and is on the path towards ordination in the Swedenborgian Church of North America. Her ministry and creative practice revolves around the teaching and development of the 'Sacred Systems of Interoception' across wisdom traditions from around the world, Systems which serve as tools to open up the interior senses and connect us with a higher reality. Through her work with the Swedenborg Chapel, she will be offering a series of sermons which will explore more of these deeply human ideas and practices in the coming months.

5. Paramahansa Yogananda, Kriya yoga (From: The Great Light of God), n.d., http://yogananda.com.au/podcast/p_yogananda_kriya.html.

yoga. We will focus on the esoteric meaning, historical context and scientific foundation beneath the role of breath control in these two systems with a particular emphasis on the influence of neuroscience on the development of these two practices. I will cite the publicly available description of kriya yoga printed in *Autobiography of a Yogi* (1946) and references to Swedenborg that are largely drawn from his essay on ecstatic trance in his work on the Brain.⁶ The author is approaching this study as both a seventh-generation inheritor of the Swedenborgian tradition and a close follower of Guruji Yogananda and therefore this research project is an attempt to explore and celebrate the work of both teachers by illustrating their connections and differences. It is the author's hope that by drawing parallels between these two geographically and culturally distant yet spiritually proximal masters, we can employ the vast history of contemplative traditions to enrich the ancient art and science of internal breathing for the wellbeing of the modern mind. The hybrid spirituality of the New Age strongly effects the way that we as human products of human history define ourselves, as modern people we are psychic inheritors of the genetic material from a host of traditions, both the traumatic and the sacred. In my own journey Swedenborg and Yogananda have been like parents to me and by knowing them both better I have grown to know myself.

THE SUBTLE BREATH

At this point several species of respiration were shown to me about which I also spoke quite a lot, i.e. that there is an external kind with the normal breathing, which is the one common to the world of spirits; then an inner one together with an imperceptible outer one - this being quite good; then there is an inner one without any outer, which is better; then there is also an imperceptible one almost none of which I could perceive, and which is angelic. These are the kinds of respiration.⁷

In the quote above from Swedenborg's Spiritual diary he describes the "kinds of respiration" ascending in four distinct stages from the breath of the lungs, which we use for speech, through the internal breath and

6. Emanuel Swedenborg, "Opus de Cerebro (codex 55)" (Bryn Athyn, PA, n.d.). (all numbers in Swedenborg citations refer to section numbers)

7. Emanuel Swedenborg, *Spiritual Experiences*, trans. Kurt P Nemitz and Durban Odhner (Bryn Athyn, PA: Academy of the New Church, 1998), 3464.

finally to the angelic breath which is only perceived as the direct influx of Divine love and wisdom into our minds.⁸ In the state of deep meditation Swedenborg would ascend through these stages, first bringing awareness to the interactive rhythms of the heart and lungs and then to the subtle breath of the spirit within the nervous system and guided by an intense focus upon the grace of God, through the barriers of death and into the sphere of angelic consciousness and the direct influx of Divine Love and Wisdom into the human faculties of volition and discernment.

This practice bears striking resemblance to Yogananda's own process, as he said in a lecture titled *The Great Light of God*, "to get to the soul, get beyond the subconscious, that's the purpose of kriya yoga ... yoga means union, scientific union with God, that you are receiving, dump your body into Shiva consciousness, that's what I do, I practice a few times kriya and I dump my body and the body is gone and I am in infinite bliss, the bliss that surpasses any description. So, you all came from that, it is not the privilege of Christ and a few masters to go there, all waves, behind small and big waves, it's the same ocean." This striking similarity in spiritual practice attests to a common underlying reality which has been variously accessed by civilizations around the world. If we base our theology on myths and scripture, no matter how valuable they may be as forms of narrative theology, we may fall into the conflict of cultural relativism, but when approached from the paradigm of the science of direct embodied perception, we may employ a comparative approach to use the experiences of our preceptors to triangulate a common reality.

In *Autobiography of a Yogi* (1946) Yogananda defines Kriya yoga as "a simple, psychophysiological method by which the human blood is decarbonized and recharged with oxygen. The atoms of this extra oxygen are transmuted into life current to rejuvenate the brain and spinal centers."⁹ The word Kriya, in Sanskrit indicates "movement, motion or agitation", it also has the implication of a ritualized practice by which the mind ascends through stages towards union with the Absolute.¹⁰ This ancient interoceptive practice which, through active creative focus of consciousness, cleanses the

8. *Secrets of Heaven*, trans. Lisa Hyatt Cooper, vol. 1 (West Chester, PA, 2008), 3884.

9. Paramahansa Yogananda, *Autobiography of a Yogi* (Self Realization Fellowship, 1998), 263.

10. Swami Anandakapila Saraswati, "Kriya: Internal Alchemy of the Soul," *JOY: The Journal of Yoga* 3, no. 6 (Fall 2004): 4.

energy streams within the body and the perceptual space of the mind, holds a complex and central role in the wider arena of Shakta Tantra.¹¹ From a Swedenborgian perspective, this description immediately brings to mind Swedenborg's pretheological work *De Anima*¹² (the Soul) it is especially important for us to pay attention to the meaning of the Latin word in the original title, from *Anima* come words like *animate*, *animal* and *animosity*, it is a word which, (unlike the English word "Soul") has the implication of action, motion, agitation and movement. To Swedenborg, Anima gains a kind of anthropomorphism; she governs, rises up and appears when it suits her to do so.¹³

Around 1740, a generation before the Galvanis¹⁴ famously discovered that the signals in nerve fibers were electrical, an idea which Yogananda employed extensively,¹⁵ Swedenborg closely observed the fibers of the nervous system and deduced that there was "A spiritous flux which flashes through an entire fiber with the utmost swiftness." He perceived this energy was a form of "Divine influx", upon which both our external and internal senses depend, he deduced that this spiritual energy must "wind through the whole cerebrum in a spiral manner... in accordance with the substantial form of the sensory organ itself." This idea evolves over the next decade into what Swedenborg calls "Internal breathing" an interoceptive practice which would be the foundation of his decades of spiritual experiences.

It must altogether be known, however, that a person possesses a double respiration, one of his spirit and the other of his body, and that the respiration of the spirit depends on fibers from the brain, and the respiration of the body on blood vessels from the heart, and on the vena cava and aorta.

It is evident, furthermore, that thought produces respiration, and it is also evident that an affection belonging to love produces thought; for thought without an affection would be altogether like respiration without the heart, which is not possible.

11. Ibid.

12. "The Soul, or Rational Psychology" (n.d.): 434.

13. Swedenborg, "Opus de Cerebro (codex 55)," 833.

14. Bern Dibner, "Luigi Galvani," *Britannica*, November 30, 2020, accessed December 12, 2020, <https://www.britannica.com/biography/Luigi-Galvani>.

15. Paramahansa Yogananda, *Kriya yoga (From: The Great Light of God)*.

It is apparent therefore that an affection belonging to love joins itself to the thought belonging to the intellect, as we have said above. It is the same as with the heart in respect to the lungs.¹⁶

Both of these systems somehow involve the suspension of normal breathing and a transference of the center of breath into the spine and the brain. In this paper we are going to classify Kriya yoga and Internal breathing as what the author has chosen to designate as Sacred Systems of Interoception that is, they are both systems for the organization of internal spiritual/physiological perception. One of the central conflicts between scientific and spiritual discourse involves the fact that while spirituality relies on the eternal constancy of its subject matter (God) science relies on its constant ability to change and self-edit. When we think of interoception as a sensory system in its own right this conflict is largely resolved. We can accept that Yogananda was a master of the chakra system and Swedenborg did truly perceive the whole of heaven within his body¹⁷ if these are both understood as maps of interiority. As such they are at once embodied and sacred, serving as threads strung between the Embodied and the Absolute. On the other hand, both of these men were also products of their own time and culture and if we are to take the “Holy Science”¹⁸ seriously, then (out of respect for our forebearers’ scientificity) we should be able to update the physiological explanation which we use to describe these kinds of systems.

In this spirit, a contemporary study serves as the ideal introductory illustration. In his recent book on neuronal plasticity celebrity neuroscientist David Eagleman (1971–) describes an experiment from a few years ago where healthy sighted participants were blindfolded, placed in a brain scanner and given a complex tactile task. The brain scanner was specifically calibrated to measure activation in the primary visual cortex (near the back of the cerebrum).¹⁹ What the experiment found was that with between 40–60 minutes of working on this task the brains of the participants radically rearranged their sensory organization, the primary visual cortex started processing tactile input. What this means is that rather than a predetermined

16. Emanuel Swedenborg, *Divine Love and Wisdom*, trans. Bruce Rogers (Bryn Athyn, PA: General Church of the New Jerusalem, 1999), 412.

17. *Arcana Coelestia*, 3rd ed., vol. 3 (Swedenborg Society, 1953), 3884.

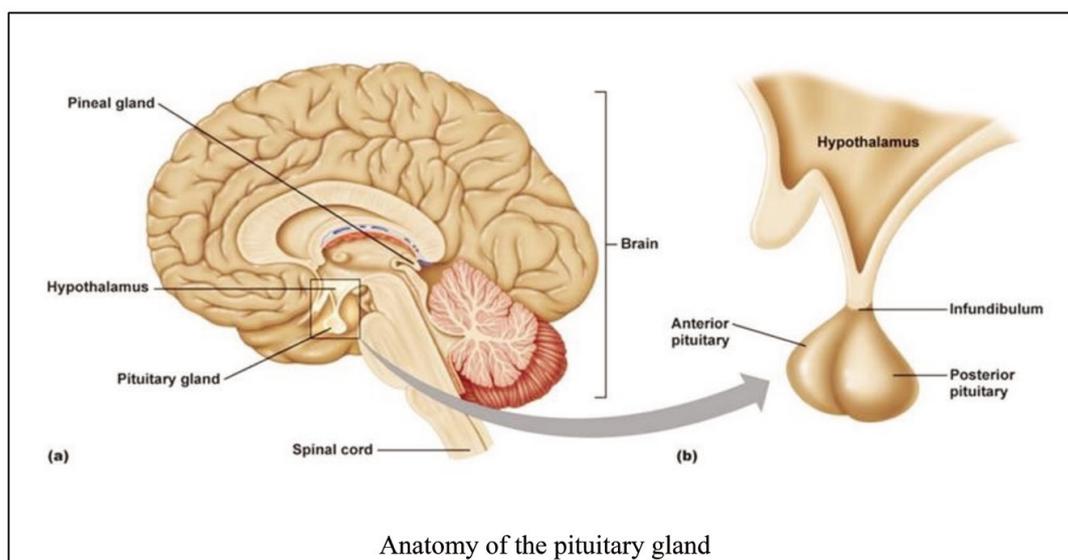
18. Swami Sri Yukteswar, *The Holy Science*, eighth. (Los Angeles, ca: International Publications Council of the Self Realization Fellowship, 1990).

19. David Presti, *Foundational Concepts in Neuroscience: A Brain Mind Odyssey*, 1st ed. (w. w. Norton and Company, 2016), 169.

layout over the surface of the cerebrum, the way our senses are organized and prioritized is in fact much more adaptive and changeable than we ever imagined. In light of this research, and with the realization that interoception is a sensory system in its own right, imagine the psychospiritual effect that an hour of interoceptive contemplation might create. This means that the Sacred Systems of Interoception are profoundly powerful tools for consciously sculpting the connectome²⁰ of the human brain. This means that our spiritual and psychological state is constantly being rewritten in the language of neurons and electrical fields, or as Swedenborg said:

I have been shown the nature of the heavenly form as it exists in the most intimate sphere. It was like the form taken by the sinuous circumvolutions which are visible in the human brain.²¹

THE HISTORY OF THE CONTEMPLATIVE BRAIN



Both Yogananda and Swedenborg frequently spoke about the importance of the spine and the brain to contemplative practice.²² Decades before he turned towards theology Swedenborg was developing a sophisticated

20. Paul B. Sharp et al., "Mindfulness Training Induces Structural Connectome Changes in Insula Networks," *Scientific Reports* 8, no. 1 (December 2018): 7929.

21. *Arcana Coelestia*, 3rd ed., vol. 3 (Swedenborg Society, 1953), 4041.

22. Paramahansa Yogananda, *Kriya yoga (From: The Great Light of God)*.

theoretical framework for the physiological correlate to consciousness.²³ For Swedenborg, “*brain location theory*” as it is called, was a deviation from earlier iatromechanical, Cartesian models which placed emphasis in the pineal gland, a tiny part of the brain which has the distinction of being the geometrical center of the back portion of the skull, as “*the seat of the soul*”²⁴ (see above image) Madame Blavatsky (1831-1891), a controversial follower of Swedenborg, seized upon this idea in relation to yoga, calling the pineal gland “*the eye of Shiva*”, this idea has been popular with new-age spirituality ever since.²⁵ But a century before Blavatsky, Swedenborg, upon carefully examining the human brain, discovered that the pineal gland only had connections to the visual system, it could therefore not be the center of general consciousness.²⁶

In light of this information Swedenborg switches the “master gland” to the pituitary, because he observes that it is not only connected to the thalamus (and therefore the whole cerebrum) but that, because of its location at the back part of the nasal sinuses, the pituitary gland is responsive to the motion of *breath*.²⁷ In fact, Swedenborg intuited that the whole nervous system is reactive to the motion of breath,²⁸ we know from current research that this entrainment of the oscillations of the nervous system happen both mechanically, in terms of the waves of cerebral-spinal fluid which flow around and through the spine and the brain in sync with our respiration²⁹ but also in terms of the subtle electrical oscillations in our limbic systems, which entrain our cognition and emotional awareness when we inhale through our nostrils.³⁰

23. Swedenborg, *The Cerebrum*, vol. 1, p. xvii.

24. Gert-Jan Lokhorst, “Descartes and the Pineal Gland,” *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition), n.d., <https://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=pineal-gland>.

25. Ibid.

26. Swedenborg, *The Cerebrum*, 1:959.

27. Ibid., 1:1110

28. Emanuel Swedenborg, *Economy of the Animal Kingdom*, trans. Augustus Clissold M.A., 2nd ed., vol. 2 (New York, NY, USA: Swedenborg Scientific Association, 1955), 61.

29. S. Dreha-Kulaczewski et al., “Inspiration Is the Major Regulator of Human CSF Flow,” *Journal of Neuroscience* 35, no. 6 (February 11, 2015): 2485–2491.

30. Christina Zelano et al., “Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function,” *The Journal of Neuroscience* 36, no. 49 (December 7, 2016): 12448–12467.

This connection between the conscious, cognitive activity of the brain and the motion of respiration was a fact that both of our subjects were very aware of, in *Divine Love and Wisdom* Swedenborg states:

Everyone can observe internally that discernment corresponds to the lungs on the basis of thought and on the basis of speech. On the basis of thought: we cannot think at all without the concurrence and support of the breath of our lungs. So quiet thought is accompanied by quiet breathing, deep thought by deep breathing. We hold and release our breath, we suppress or intensify our breathing, in response to our thinking--in response, then, to the inflow of some feeling related to what we love, breathing slowly, rapidly, eagerly, gently, or intently. In fact, if we suppress our breathing completely, the only way we can think is in the spirit, by its breathing, which is not clearly noticeable.³¹

An idea which was replicated almost exactly by Yogananda two centuries later:

Many illustrations could be given of the mathematical relationship between a person's respiratory rate and the variations in his states of consciousness. A person whose attention is wholly engrossed, as in following some closely knit intellectual argument, or in attempting some delicate or difficult physical feat, automatically breathes very slowly. Fixity of attention depends on slow breathing; quick or uneven breaths are an inevitable accompaniment of harmful emotional states: fear, lust, anger.³²

In contrast, Yogananda places the fountainhead of the energy of consciousness in the medulla, from whence it flows into the whole nervous system. For both Yogananda³³ and Swedenborg the soul had its seat in the geometrical connectivity of the whole distributed system, and particularly in the way that the spine and the brain react energetically to the oscillatory motion of respiration.³⁴ Early on in his career Swedenborg's theory of

31. Swedenborg, *Divine Love and Wisdom*, 382.

32. *Autobiography of a Yogi*, 143.

33. *Ibid.*, 216.

34. L. Nivethitha et al., "Cerebrovascular Hemodynamics during Pranayama Techniques," *Journal of Neurosciences in Rural Practice* 08, no. 01 (January 2017): 060–063; Zelano et al., "Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function."

“tremulation”^{35, 36} held that consciousness itself was a product of spiritual vibratory or harmonic phenomena within the brain, the most dramatic of these tremulations were the movements of the heart and lungs. All Hindu systems hold that matter emerges from omnipresent consciousness; which is expressed in the vibration OM, this is now known as “panpsychism” in contemporary Western philosophy.

The idea of panentheistic panpsychism aligns more closely to Swedenborg’s later idea of Divine Love and Wisdom as the primary cause of creation and the very life of humanity.³⁷

For Yogananda, an emphasis on specific internal anatomy is a deviation from more traditional *tantric* yoga which usually focuses on the purely energetic structures in the *chakra* system.³⁸ In fact, in the *Vijnana Bhairava* there is a consistent emphasis on “the void in one’s own body”.³⁹ For Yogananda *prana* becomes *lifetrans*⁴⁰—a play on electrons—and *Sahasrara*, the thousand petaled lotus of the crown *chakra* descends through the fontanelle and becomes one with the warm wet anatomy of the human cerebrum.⁴¹ This choice seems to be a conscious adaptation of Western science to benefit a Western audience. In the *Autobiography* Yogananda quotes his *paramaguru* Babaji saying, “the Kriya yoga that I am giving to the world through you in this nineteenth century is a revival of the same science that Krishna gave millenniums ago to Arjuna; and was later known to Patanjali and Christ, and to St. John, St. Paul and other disciples.”⁴² With this quotation Babaji roots his Kriya yoga in both the East and the West, meaning it was fashioned both *from* and *for* a globalized mindset. With this modern, cosmopolitan perspective, it seems unlikely that Yogananda would have a problem calling Swedenborg a Yogi.

35. Emanuel Swedenborg, *On Tremulation*, trans. Carl Theophilus Odhner (Bryn Athyn, PA: Swedenborg Scientific Association, 1866).

36. David Duner, *The Natural Philosophy of Emanuel Swedenborg: A Study in the Conceptual Metaphors of the Mechanistic Worldview*, trans. Alan Crozier, vol. 11, *Studies in the History of Philosophy of Mind* (London: Springer, 2013), 129.

37. Swedenborg, *Divine Love and Wisdom*, 1.

38. Ajit Mookerjee, *Kundalini: The Arousal of the Inner Energy* (London: Thames and Hudson, 1982), 7.

39. Swami Lakshman Joo, *Vijnana Bhairava: The Practice of Centering Awareness*, 3rd ed. (Varanasi, India: Indica Books, 2015), 67.

40. *Autobiography of a Yogi*, 163.

41. *Ibid.*, 216.

42. *Ibid.*, 264.

All this begs the question, did Paramahansa Yogananda read Swedenborg? It is certainly *possible* that he did. Swedenborgian books were widely available in India during Yogananda's lifetime.⁴³ As early as 1870, Keshab Chunder Sen (1838-1884) a close disciple of Sri Ramakrishna's and important leader of the Brahmo Somaj who, according to the records of the London Swedenborg Society, visited them in 1870, brought back copies of The Writings to Calcutta and seems to have been to some degree influenced by Swedenborgian thought.⁴⁴ The first Hindi translation of Swedenborg's bestseller, *Heaven and Hell* was published in 1894,⁴⁵ and highly successful Swedenborgian reading rooms opened in 1914 in Madras, Bombay and elsewhere on the subcontinent.⁴⁶ Helen Keller's (1880-1968) spiritual autobiography and theological New Church manifesto where she lavishes praise on Swedenborg as her spiritual teacher, *My Religion*, was widely distributed in India along with other Swedenborgian literature through the efforts of D. Gopaul Chetty (1867-1953) who sent a copy of the same book to Mahatma Gandhi, who himself occupies a chapter in the *Autobiography*.⁴⁷ The famed civil rights leader apparently read it and found it enlightening⁴⁸. The mention of Helen Keller in a footnote on page 249 as a "rare" and enlightened being⁴⁹ suggests that Yogananda had a familiarity with her theology. It may be noted that they were both^{50, 51} in Boston at the

43. Eleanor Schnarr, "Swedenborgianism in India: D. Gopaul Chetty and the Marriage of Swedenborg and Saiva Siddhanta," *Our Daily Bread: A Ministry of the Swedenborgian Church of North America*, December 2, 2020, Dayaram Gidumal, "India and the New Church: A Biographical Sketch of Mr. M. Behramji Malabari," *New Church Life* (1896). http://spiritualquesters.org/?p=1480&fbclid=IwAR3pbCXgEfs6-U_yhEWBtK3p6u4KfLDdeoLONQ0zw1dcmKhqA7ETT4sQW0

44. New Church Messenger Editor, "The Church in Asia.," *New Church Messenger*, 1909; "List of Colonial and Foreign Addresses in the General Conference Year Books India/British India, 1876-1910," n.d., General Conference Library Archives; Isaiah Tansley, "The New Church in India and the English Conference," *New Church Life* (1914).

45. Dayaram Gidumal, "India and the New Church: A Biographical Sketch of Mr. M. Behramji Malabari," *New Church Life* (1896).

46. Goupal Chetty, Report of Gopaul Chetty's New Church Work in India, 44 1933, Swedenborg Society Library.

47. *Autobiography of a Yogi*, 249.

48. H. N. Morris, "New Church Propaganda in India," *New Church Herald* (October 17, 1931).

49. *Autobiography of a Yogi*, 249.

50. Editors of Encyclopedia Britannica, "Helen Keller: American Author and Educator," *Britannica*, September 2, 2020, accessed December 4, 2020, <https://www.britannica.com/biography/Helen-Keller>.

51. *Autobiography of a Yogi*, 202.

time of the *International Congress of Religious Liberals*, (Yogananda's first speaking event in the West).

In his massive Christological work, *The Second Coming of Christ*, Yogananda attests to a belief that Jesus spent time in the Himalayas in his youth and passed *Kriya yoga* to his disciples.⁵² Similarly, we might suppose that Swedenborg may have been exposed to Eastern spirituality in some form during his time in Venice⁵³ where he studied the brain between 1738–40. *Neither of these narratives have much evidence behind them.* With all this in mind, it is entirely possible that Yogananda was aware of Swedenborg and intentionally adopted his idea of a subtle body that conforms more closely to exacting minutia of anatomy than the chakra system usually does. It is less plausible that Swedenborg studied Yoga.

Both of these theories are almost entirely conjectural and actually distract from a much closer and more exiting connection, both of these masters were students of the scripture of the body, and that is a scripture common to all wisdom traditions. In light of their shared scientificity, we may orient both of our subjects as participants in the global project of the advancement of the direct understanding of the world through scientific inquiry, a story which, from Satyendra Nath Bose to V.S. Ramachandran, has been a largely collaborative effort between East and West.

The experience of embodiment is not a belief, it is a fact, and as a fact it transcends belief systems. The Embodied Absolute is that place where the divine shines out through the natural world, what Religious Studies scholar, Rita D. Sherma, has termed “radical immanence”.⁵⁴ Instead of stretching for proof that Swedenborg and Yogananda had some kind of historical connection, the aim of this study is to make a different sort of argument. It is to argue that they were both open to something perceptually *real*, and yet supersensory. That is, the perception of the mechanism of the system of consciousness itself. Both of our subjects were highly sensitive to phenomena which exist within the perceptive reality of the interoceptive field. What they have left for us are two sometimes imperfect but profoundly useful attempts to both teach and explain that reality.

52. Paramahansa Yogananda, *The Yoga of Jesus* (Self Realization Fellowship, 2007), 11.

53. Swedenborg, *The Cerebrum*, vol. 1, p. xviii.

54. Rita D Sherma, “Sacred Immanence: Reflections of Ecofeminism in Hindu Tantra,” in *Purifying the Earthly Body of God: Religion and Ecology in Hindu India*, ed. Lance E. Nelson, 1999.

The land of healing lies within, radiant with that happiness blindly sought in a thousand misdirections.⁵⁵

THE THEOSOPHIST AND THE YOGI

If these two practices are brought together through anatomy, then they are separated by culture. Whereas, the physical practice of the retention of breath might be remarkably similar, the way in which it is transmitted across generations couldn't be more different. Swedenborg was considered exceptional, even insane because of his experiences.⁵⁶ Swedenborg spread his ideas mostly through the written word, he never founded a church or had students and he strongly warns of the effect of using Internal breathing for communication with spirits without proper mental discipline.⁵⁷ Swedenborgianism was looked upon with suspicion by mainstream Christianity, the heresy charges of Swedenborg's own lifetime,⁵⁸ were mirrored by the banning of Swedenborgian literature in India by Catholic and Protestant missionaries⁵⁹ more than a century later.

For this reason, Swedenborg's techniques of meditation and interoception have been passed down in the scriptural vessels of his personal diaries and published works. But they have historically not been taught in a systematized manner. He puts a great emphasis on the fact that internal breathing is something that is opened up by means of Divine intervention, stating that it "is controlled by the Lord Alone"⁵⁷ when, in providence an individual becomes aware of this subtle interoceptive current, they are taking part in the most intimate sacrament. It should be noted that both conceptually and etymologically *spirit* and *respiration* are very close to one another in Swedenborg's thinking. He goes so far as to say that, "*spirit and wind in the Hebrew, and in some other languages, are the same word; for the word spirit is derived from a word that means breathing; and therefore, when a person dies, they are said to give up the ghost [anima]. It is for the same reason that people believe the spirit to be wind, or an airy something like breath breathed out from the lungs,*

55. *Autobiography of a Yogi*, 76.

56. Swedenborg Foundation, "The Life of Emanuel Swedenborg," *Swedenborg Foundation*, <https://swedenborg.com/emanuel-swedenborg/about-life/>.

57. Swedenborg, *Spiritual Experiences*, 3781.

58. Swedenborg Foundation, "The Life of Emanuel Swedenborg."

59. Morris, "New Church Propaganda in India."

and the soul to be of like nature.”⁶⁰ This proximity means that, for those who find the idea of “angels and spirits” ontologically challenging, they might be thought of instead as metaphorical manifestations of the chemical “spirits” (which arise like alcohol) in the brain which determine our psychological state and are themselves moderated by how we breathe.^{61, 62, 63, 64}

Paramahansa Yogananda, on the other hand, gave public, recorded lectures,⁶⁵ founded the Self Realization Fellowship⁶⁶ and actively taught his students his breathing techniques. The difference is marked by the absence of the *guru-shishya* relationship in the West. In India, where the experience of God realization can be intentionally transmitted along ancient lineages, the inheritors of those traditions, renunciants and yogis, hold the power of direct experience. A self-empowering system of interoceptive spiritual praxis upheld by a disparate class of mystics radically undermines the power structures of the church, promotes pluralism and threatens the duality of good and evil on which mainstream Christian ideas of sin and salvation depend. Swedenborg was largely rejected by Christianity because he was a threat. If we are intimately connected to the Embodied Absolute on a level which utterly transcends doctrine,⁶⁷ if salvation depends more on mindset than membership,⁶⁸ then the whole project of Christian missionary colonialism seems rather pointless and cruel.

We must ask ourselves, which one of these attitudes is healthier? Can everyone experience ecstatic non-duality or is that something best left to “a few saints and prophets?”⁶⁹ With the introduction of Yogic thinking to the

60. Swedenborg, *Divine Love and Wisdom*, 383.

61. Zelano et al., “Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function.”

62. D.C.F. Tornberg et al., “Nasal and Oral Contribution to Inhaled and Exhaled Nitric Oxide: A Study in Tracheotomized Patients,” *European Respiratory Journal* 19, no. 5 (May 1, 2002): 859–864.

63. Scott W. Woods et al., “Carbon Dioxide—Induced Anxiety: Behavioral, Physiologic, and Biochemical Effects of Carbon Dioxide in Patients With Panic Disorders and Healthy Subjects,” *Archives of General Psychiatry* 45, no. 1 (January 1, 1988): 43–52.

64. Bethany E. Kok and Barbara L. Fredrickson, “Upward Spirals of the Heart: Autonomic Flexibility, as Indexed by Vagal Tone, Reciprocally and Prospectively Predicts Positive Emotions and Social Connectedness,” *Biological Psychology* 85, no. 3 (December 2010): 432–436.

65. Paramahansa Yogananda, *Kriya yoga (From: The Great Light of God)*.

66. *Autobiography of a Yogi*, 523.

67. Swedenborg, *Arcana Coelestia*, 3:1799.

68. Emanuel Swedenborg, *Heaven and Hell*, trans. George F Dole (New York, NY, USA: Swedenborg Foundation, 2000), 319.

69. Paramahansa Yogananda, *Kriya yoga (From: The Great Light of God)*.

West comes the possibility that, by the grace of the Almighty, the systems of internal breathing which were indigenous to the West can be actively and intelligently *taught*. This attitude is an incredible gift and it should be treasured as such.

Brave indeed is the guru who undertakes to transform the crude ore of ego-permeated humanity! A saint's courage roots in his compassion for the stumbling eyeless of this world.⁷⁰

AN ANCIENT LINEAGE

Inauguration into gyres, is [being brought] into [types of] breathing

When pre-adamites and those like pre-adamites are being inaugurated into swifter gyres that I finally felt as continuous, while previously they had been extremely separate, I was given to realize that these inaugurations are like [the gyres] into types of breathing. For when breathing takes place in a person, the senses and perceptions come alive, as well as actions, and when there is inward breathing, that the inward senses and perceptions come alive, as I have been shown by actual experience. For I was driven into inward gyres also, which were kinds of breathing.

So the first inauguration is only into types of breathing, and when these have been given, then the spirit is introduced into inward perceptions, and so further, for as shown before, ideas are the intervals and variations of the types of respirations, as is obvious from the operation of the will into the muscles by means of the action of the lungs, spoken of earlier.

1748, 28 Sept.⁷¹

Babaji's promise to restore the ancient practice of Kriya yoga for the modern world⁷² strongly calls to mind the above passage from Swedenborg's *Spiritual Diary*. In both instances the most ancient religions of the Earth are implicated as the source of these practices. Swedenborg did not believe in a literal interpretation of the book of Genesis,⁷³ instead when he speaks

70. *Autobiography of a Yogi*, 75.

71. Swedenborg, *Spiritual Experiences*, 3399.

72. *Autobiography of a Yogi*, 216.

73. Swedenborg, *Arcana Coelestia*, 3:841.

allegorically about “Pre-Adamites and those like Pre-Adamites” he is speaking of the most ancient state of human consciousness, and those who experience something akin to it. His “Most Ancient” state from whom he learns the initiatory process which uses the motion of breath to shift consciousness from the external sensory world to the internal world of pure intelligence and desire, is a state which transcends language and sect and culture in a collective memory of the infancy of humanity.

It was as if people were unaware of what faith was, because they had a perception of everything involved in faith. When they started to create a distinct doctrine concerning faith, however, they drew out principles they had learned through perception, reduced them into a systematic theology, and named them “I have acquired the man Jehovah,” as if they had stumbled onto some new thing. In this way they turned what had been written on their hearts into a set of facts.⁷⁴

The ancient Rishis, inspired Yogis and renunciants might be thought of as those who are “like Pre-Adamites”, that is, they too are students of the scripture of the heart. The promise of Yoga is a return to that central core of breath, the “seed syllable” at the dawn of cosmic and personal time, and like a bee at the lotus feet of the Goddess, find stillness in Her sweet nectar. It is our duty as students and inheritors of these traditions to avoid the mistake which Swedenborg is describing above. Yoga is not a set of facts; it is as active as the soul which animates the universe and the spirit which electrifies our nerves. Yoga is a love story.

SUSPENDING THE BREATH

Was Swedenborg a yogi? The first person to comprehensively answer this question was Shaivite-Swedenborgian theologian and evangelist D. Gopaul Chetty whose book *New light on Indian Philosophy: Swedenborg and Shaiva Siddhanta* was published in 1923 and widely distributed in Southern India.⁷⁵ In the chapter with this very question as it's heading which begins on page 125, Chetty states, “By certain practices and methods, the Yogi suppresses expiration and respiration by *kumbhakam* and passes into a

74. Swedenborg, *Secrets of Heaven*, 1:340.

75. Goupal Chetty, *New Light upon Indian Philosophy: Swedenborg and Saiva Siddhanta* (London and Toronto: J. M. Dent & sons ltd., 1923).

trance state and remains in it for several hours without breathing.”⁷⁶ This description of *kumbhaka* closely aligns with Swedenborg’s own description of suspended breathing from his diary where he says:

I first became accustomed to [internal breathing] in early childhood during the praying of the morning and evening prayers, as well as later, at times, while I was investigating the harmonies of the lungs and heart, especially when my mind was engaged in writing the works that have been published over many years. At such time I noticed now and then that there was a tacit breathing, hardly perceptible, about which I was later prompted to think, and to write. So, for many years from early childhood I had been introduced to such breathing, most of all during intense moments of insight, when breathing comes to rest, and if it does not, an intense insight of truth is not given. Then later, when heaven was opened, so that I would speak with spirits, and thus would not breathe in at all for the space of a short hour. I only drew in as much air as I needed to think. In this way I was introduced by the Lord to inward ways of breathing.⁷⁷

Chetty believes that the suspension of breath is made possible by *cutaneous respiration*,⁷⁸ current research shows us that, although the amount of oxygen which penetrates into the blood stream through the skin is negligible,⁷⁹ the outer skin itself absorbs the bulk of its oxygen supply from the air. Chetty believes that, in a state of profound yogic trance, this small amount of oxygen is enough to maintain the vitality of the body without actually drawing air into the lungs.⁸⁰ A further question which we might ask is whether or not the nasal sinuses passively absorb oxygen through their rich vascular folds within the pituitary mucosa, that contorted labyrinth at the top of the nasal cavity which entrains the energetic oscillations of the brain⁸¹ that (according to Swedenborg) become dominant when the breathing of the lungs is suspended.

In a 2017 study, fifteen experienced students from a prestigious Yoga academy in South India were attached to a device which monitored their levels of cerebral blood flow while they practiced a series of sixty second

76. Ibid., 125.

77. Swedenborg, *Spiritual Experiences*, 3464.

78. Chetty, *New Light upon Indian Philosophy: Swedenborg and Saiva Siddhanta*, 125.

79. Martin E Feder and Warren Burggren W, “Cutaneous Gas Exchange in Vertebrates: Design, Patterns, Control and Implications,” *Biological Reviews* 60, no. 1 (1985): 1–45.

80. Chetty, *New Light upon Indian Philosophy: Swedenborg and Saiva Siddhanta*, 126.

81. Zelano et al., “Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function.”

kumbhakas.⁸² What the researchers found was that, while the rates of cerebral blood flow were stable with normal forms of breathing, the practice of breath retention had the somewhat obvious effect of raising carbon dioxide levels, which in turn (after between fifteen and thirty seconds) caused blood to rush into the brain.⁸³ The Co₂ increase in and of itself is a chemical trigger for anxiety.⁸⁴ The sense of fear one feels when one cannot draw air is in fact a direct reaction to this increase, studies have found that breath retention actually decreases anxiety by increasing our tolerance for Co₂.⁸⁵

There are many places in the Autobiography where Yogananda describes the suspension of breath in the yogic trance.⁸⁶ While the ability to temporarily suspend the breath of the lungs, and the visions that this practice produces, were baffling to Swedenborg's contemporary audience, *kumbhaka* is a commonplace element of *pranayama* practice in the yogic traditions. This presence does little to prevent a young Yogananda from getting a fright the first time he witnesses someone in this state. On page 67 he describes the first time he observed his guru Swami Sri Yukteswar Giri (1855–1936) in such a condition.

“His heart must have failed!” I placed a mirror under his nose; no breath–vapor appeared. To make doubly certain, for minutes I closed his mouth and nostrils with my fingers. His body was cold and motionless.

Of course, Master Yukteswar was never in any danger. The presence of these parallel practices of breath retention on opposite ends of the Eurasian continent is a testament to the central thesis of this paper, they are joined by *anatomy*. Not as it exists in a materialist vacuum, but as pre-verbal scripture, integrated, elegant and correspondent with all the vast inner realities of the soul as an immanent manifestation of the Divine Consciousness of the Embodied Absolute.

In ecstasy one remains dumb with wonder. Outward breathing stops entirely, but inward breathing continues; as when aiming a gun, one remains speechless and without breathing. In Divine Love one entirely forgets the external world

82. Nivethitha et al., “Cerebrovascular Hemodynamics during Pranayama Techniques.”

83. Ibid.

84. Woods et al., “Carbon Dioxide—Induced Anxiety: Behavioral, Physiologic, and Biochemical Effects of Carbon Dioxide in Patients With Panic Disorders and Healthy Subjects.”

85. Ibid.

86. *Autobiography of a Yogi*, 261; *ibid.*, 70; *ibid.*, 143.

with all its charms and attractions; even one's own body, which is so dear to one, is easily forgotten. In ecstasy, when the breathing stops, the whole mind remains absolutely fixed upon the Supreme. All nerve currents run upward with tremendous force and the result is Samadhi or God-consciousness. -Sri Ramakrishna⁸⁷

DECARBONATING THE BLOOD

Those for whom the mind's operations are emptied come into a lighter form of ecstasy. They gradually remove themselves from the body, withdrawing their soul from sensory objects, and meanwhile breathe tacitly with their lungs filled and elevated.⁸⁸

At the beginning of chapter 26 of *Autobiography of a Yogi*, Yogananda defines Kriya yoga as "a simple, psychophysiological method by which human blood is decarbonated and recharged with oxygen ... Elijah, Jesus, Kabir and other prophets were past masters in the use of Kriya or a similar technique, by which they caused their bodies to materialize and dematerialize at will."⁸⁹

Swedenborg describes his breath control practice in many places and the author of this study has written extensively on the subject elsewhere.⁹⁰ To put it briefly, Swedenborg believed that humans had two forms of breathing, an external form of breath, which centers in the lungs, that is the breath we use when we speak, and an internal, spiritual form of breath which was used by pre-verbal humans and centers itself in the subtle energies within the nervous system.⁹¹

In two places in the *Autobiography* Yogananda describes an event where one of his spiritual teachers, (first, Mahendra Nath Gupta and afterwards Swami Sri Yukteswar Giri) quite literally pushed him into a state of "inexpressible ecstasy" by means of a soft blow to the chest just above the heart.

87. Mahendra Nath Gupta, *The Gospel of Ramakrishna* (New York, NY, USA: Vedanta Society, 1947), 74.

88. Swedenborg, "Opus de Cerebro (codex 55)," 830.

89. *Autobiography of a Yogi*, 263. (Emphasis mine)

90. Eleanor Schnarr, "Swedenborg and the Ancient Art of Internal breathing," *Our Daily Bread* (July 2020).

91. Swedenborg, *Divine Love and Wisdom*, 412.

Sri Yukteswar seldom indulged in riddles; I was bewildered. He struck gently on my chest above the heart.

My body became immovably rooted; breath was drawn out of my lungs as if by some huge magnet. Soul and mind instantly lost their physical bondage, and streamed out like a fluid piercing light from my every pore. The flesh was as though dead, yet in my intense awareness I knew that never before had I been fully alive. My sense of identity was no longer narrowly confined to a body, but embraced the circumambient atoms.

Indeed, it seems that the role of the heart in the physiology of ecstasy is a central one. In an essay from Swedenborg's pre-theological period titled, *Ecstasi seu Energumene* (Ecstasy or Indeed, it seems that the role of the heart in the physiology of ecstasy is a central one. In an essay from Swedenborg's pre-theological period titled, *Ecstasi seu Energumene* (Ecstasy or Trance)⁹² from his work on the brain written between 1738–1743 Swedenborg describes a kind of “embryonic vitality” which accompanies what Yogananda might translate as Samadhi, the dissolution of the individual consciousness in the Absolute. To Swedenborg, this state is correlated with a shift in the way that we breathe.⁹³ When humans are in the womb and their lungs are closed off to the outside world, blood flows differently through the heart and lungs. There are a few passageways referred to as “fetal shunts” which allow blood to pass through the heart without entering the pulmonary artery.⁹⁴ In about seventy five percent of the population, this passage closes when the first breath increases pressure in the lungs. But in the remaining twenty five percent it remains open and the vast majority of these people never know about it and suffer no ill effects.⁹⁵

Swedenborg asserts that a patent foramen ovale is necessary for one to experience ecstatic trance, he believes that when the lungs are obstructed, the oscillatory rhythms of the brain and spinal cord (usually entrained

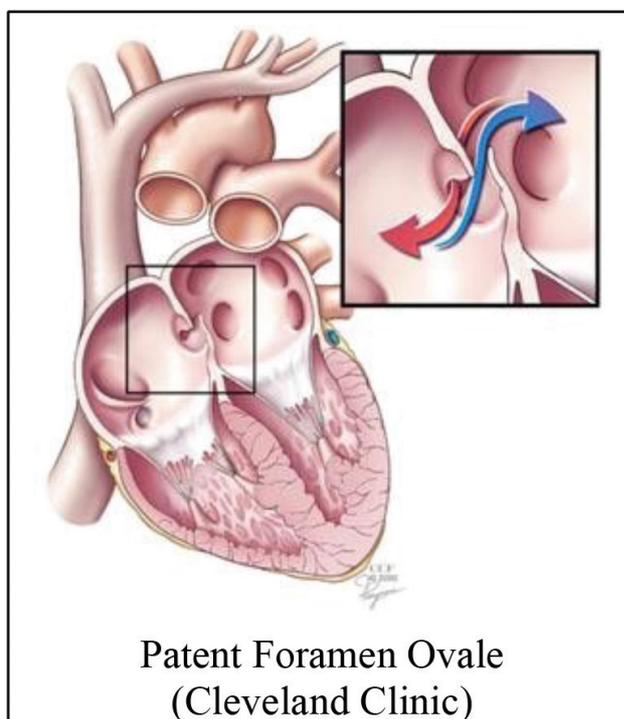
92. Swedenborg, “Opus de Cerebro (codex 55),” 665.

93. Ibid.

94. Cleveland Clinic Staff, “Patent Foramen Ovale (PFO),” *Cleveland Clinic*, accessed July 11, 2020, <https://my.clevelandclinic.org/health/diseases/17326-patent-foramen-ovale-pfo>.

95. Homma Shunichi et al., “Patent Foramen Ovale,” *Nature reviews, Disease primers* 2, no. 15086 (January 21, 2016).

by our respiration^{96,97}) become dominant. In light of what we now know about kumbhakam and its effects on cerebral blood flow,⁹⁸ we might imagine how our interoceptive awareness of our own nervous systems might become more obvious during this practice. And given what we know about cerebral organization of sensory systems,⁹⁹ an increased conscious awareness of the inside of the brain would probably afford more cortical real estate to the interoceptive



sense, which in turn would produce emotional stability¹⁰⁰ or as Yogananda calls it “spiritual evolution”.¹⁰¹ It seems that this practice is not without risk and should be approached very carefully, in addition to the obvious risk of suffocation, PFO can allow small blood clots to make their way to the brain and therefore increases the risk of ischemic stroke.¹⁰² Furthermore, current medical science has established a strong correlation between PFO and migraines with aura.¹⁰³

What could theoretically be happening is that the lungs usually filter the blood, but with the foramen ovale open this doesn’t happen as much and certain chemicals are allowed to pass through into arterial blood and

96. Dreha-Kulaczewski et al., “Inspiration Is the Major Regulator of Human CSF Flow.”

97. Zelano et al., “Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function.”

98. Nivethitha et al., “Cerebrovascular Hemodynamics during Pranayama Techniques.”

99. Lotfi B. Merabet et al., “Rapid and Reversible Recruitment of Early Visual Cortex for Touch,” ed. David C. Burr, *PLoS ONE* 3, no. 8 (August 27, 2008): e3046.

100. Sahib S. Khalsa et al., “Interoception and Mental Health: A Roadmap,” *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* 3, no. 6 (June 2018): 501–513.

101. *Autobiography of a Yogi*, 62.

102. Marco R Di Tullio and Shunichi Homma, “Patent Foramen Ovale and Stroke: What Should Be Done?,” *Current Opinion in Hematology* 16, no. 5 (September 2009): 391–396.

103. John F. MD Rothrock, “Patent Foramen Ovale (PFO) and Migraine,” *American Migraine Foundation*, last modified July 6, 2008, <https://americanmigrainefoundation.org/resource-library/patent-foramen-ovale-pfomigraine/>.

thereby into the brain. When this happens unconsciously it may cause the discomfort of a migraine. But perhaps when it is done with focused attention that flow of blood through the space between breaths is perceived emotionally as a stream of loving energy which, piercing the vortex of the heart is brought upwards into the shimmering electrical crown of the cerebrum, and we are given a vision of the true nature of the Self as the center and the edge of all things. Or, as Yogananda quotes the Bhagavat Gita, “offering the inhaling breath into the exhaling breath and offering the exhaling breath to the inhaling breath, the yogi neutralizes both breaths; this he releases prana from the heart and brings the lifeforce under control.”¹⁰⁴ “if the aforementioned foramen is unlocked and if nature does not resist,” says Swedenborg in the same essay, “then everything unfolds according to order and natural law...”¹⁰⁵

Breath is a causal loop, we inhale and that stimulates our pituitary mucosa which entrains the electrical oscillations in the limbic system, which in turn moderates our cognitive functioning,¹⁰⁶ Carbon dioxide builds up in our lungs and we are chemically moved to initiate another breath.¹⁰⁷ The effect is in the cause, and the cause is in the effect. If you watch your breathing long enough you will become aware of this cycle, and once we become aware of it, we can use it to change the causal mechanism of our consciousness, moving our primary awareness from the external breath of the lungs to the internal breath of the brain and the spine. We may even escape the cycle all together.

ESOTERIC IMPLICATIONS

Divine love is without condition, without boundary, without change. The flux of the human heart is gone forever at the transfixing touch of pure love.

—Swami Sri Yukteswar Giri¹⁰⁸

104. *Autobiography of a Yogi*, 141.

105. Swedenborg, “Opus de Cerebro (codex 55),” 833.

106. Zelano et al., “Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function.”

107. Woods et al., “Carbon Dioxide—Induced Anxiety: Behavioral, Physiologic, and Biochemical Effects of Carbon Dioxide in Patients With Panic Disorders and Healthy Subjects.”

108. *Autobiography of a Yogi*, 55.

Of course, while Ecstatic states may be founded upon physiology, human beings think and experience our internal lives in terms of abstractions. If someone were to ask to see the face of God, it would probably not be very useful to tell them to hold their breath for thirty seconds, in fact it may cause them injury. Instead, like Sri Yukteswar, we would be wise to tell them to look to love, and they would find it in the embodied space of their heart.¹⁰⁹ Swedenborg's assertion that the heart corresponds to "the goodness of our love, while "soul" and "spirit" apply to the truth of our faith"¹¹⁰ is clearly illustrated in our common language. With this in mind, a breathing practice which suppresses the action of the lungs by opening up the heart would be one which suppresses the analytical, language mind and brings us back into a mindset that is utterly focused on Divine Love as the primary force of the cosmos. With this in mind, when we are actually meditating, we should not worry too much about the facticity of science, of doctrines and knowledge, which are as precious and important to our lives as breath. Rather, in a deep state of contemplation, we should strive for the mental state of an embryo, egoless and ecstatic in the womb of God in the aspect of a Divine Mother, whether this be a remnant of our own embryonic memory or a specific deity such as we see in Yogananda's own Shakta tradition. Swedenborg makes this point in divine love and wisdom, illustrating the presence of the Divine in every minute aspect of our conscious experience.

"All human feelings and thoughts arise from the Divine Love and Wisdom that constitute the very essence that is God. The feelings arise from Divine Love and the thoughts from Divine Wisdom. Further, every single bit of our being is nothing but feeling and thought. These two are like the springs of everything that is alive in us. They are the source of all our life experiences of delight and enchantment, the delight from the prompting of our love and the enchantment from our consequent thought.

Since we have been created to be recipients, then, and since we are recipients to the extent that we love God and are wise because of our love for God (that is, the extent to which we are moved by what comes from God and think as a

109. A. D. (Bud) Craig, "How Do You Feel — Now? The Anterior Insula and Human Awareness," *Nature Reviews Neuroscience* 10, no. 1 (January 2009): 59–70.

110. Emanuel Swedenborg, *True Christianity*, trans. Jonathan Rose (West Chester, PA: Swedenborg Foundation, 2010), 250.

result of that feeling), it therefore follows that the divine essence, the Creatress, is divine love and wisdom."¹¹¹

CONCLUSION

The question that all of this comes down to is whether or not Swedenborgian Internal breathing can or should be taught in a similar way to how yoga is taught in a Western context today. Having been exposed to yogic andragogy for the past century, and in many ways having strongly influenced how it appears, can and should the Western mind ever extract itself from that paradigm? Has Swedenborgianism, as a movement reached a point where the most intimate sacraments of the Embodied Absolute are available to individuals in their day to day lives? Or would that sacred immersion in the egoless sea of spirit beyond space and time only mean repeating the ignorant flailing of someone like Madame Blavatsky, clinging to the exotic gems of a colonized people on the far side of the world? Who would have the authority to perform such a sacrament? Should we be content with representational worship, or is it our birthright to know our Creatress¹¹² as intimately and completely as possible? Would it be cultural misappropriation to stand Swedenborg next to giants like Sri Ramakrishna and Paramahansa Yogananda as a master of Sacred Systems of Interoception? Or would it be a greater violence to ignore such a striking parallel and draw lines of cultural exclusion between these systems which arose in the infancy of humankind an era long before words and labels trapped our minds in external breath?

To answer these questions, we can simply point to the incredible amount of spiritual suffering in the world today. In many ways modern humans are helpless before the specters of the mind because the dominant paradigms of Western thought exclude interoception from the normative sensory field, and there is a desperate need to restore it and to reconnect ourselves with the Embodied Absolute.

The scripture of the body provides a truly perennial sacred text. The motion of breath a truly universal ritual. The senses, offered like flowers

111. Swedenborg, *Divine Love and Wisdom*, 33.

112. *Ibid.*

on the altar of cosmic consciousness bind us all to the same reality, and it is there that God reveals herself.

BIBLIOGRAPHY

- (Bud) Craig, A. D. "How Do You Feel — Now? The Anterior Insula and Human Awareness." *Nature Reviews Neuroscience* 10, no. 1 (January 2009): 59–70.
- Chetty, Goupal. *New Light upon Indian Philosophy : Swedenborg and Saiva Siddhanta*. London and Toronto: J. M. Dent & sons ltd., 1923.
- . *Report of Gopaul Chetty's New Church Work in India*, 44 1933. Swdenborg Society Library.
- Cleveland Clinic Staff. "Patent Foramen Ovale (PFO)." *Cleveland Clinic*. Accessed July 11, 2020. <https://my.clevelandclinic.org/health/diseases/17326-patent-foramen-ovale-pfo>.
- Di Tullio, Marco R, and Shunichi Homma. "Patent Foramen Ovale and Stroke: What Should Be Done?:" *Current Opinion in Hematology* 16, no. 5 (September 2009): 391–396.
- Dibner, Bern. "Luigi Galvani." *Britannica*, November 30, 2020. Accessed December 12, 2020. <https://www.britannica.com/biography/Luigi-Galvani>.
- Dreha-Kulaczewski, S., A. A. Joseph, K.-D. Merboldt, H.-C. Ludwig, J. Gartner, and J. Frahm. "Inspiration Is the Major Regulator of Human CSF Flow." *Journal of Neuroscience* 35, no. 6 (February 11, 2015): 2485–2491.
- Duner, David. *The Natural Philosophy of Emanuel Swedenborg: A Study in the Conceptual Metaphors of the Mechanistic Worldview*. Translated by Alan Crozier. Vol. 11. Studies in the History of Philosophy of Mind. London: Springer, 2013.

- Editors of Encyclopedia Britannica. "Helen Keller: American Author and Educator." *Britannica*, September 2, 2020. Accessed December 4, 2020. <https://www.britannica.com/biography/Helen-Keller>.
- Feder, Martin E, and Warren Burggren W. "Cutaneous Gas Exchange in Vertebrates: Design, Patterns, Control and Implications." *Biological Reviews* 60, no. 1 (1985): 1–45.
- Gidumal, Dayaram. "India and the New Church: A Biographical Sketch of Mr. M. Behramji Malabari." *New Church Life* (1896).
- Homma Shunichi et al. "Patent Foramen Ovale." *Nature reviews, Disease primers* 2, no. 15086 (January 21, 2016).
- Khalsa, Sahib S., Ralph Adolphs, Oliver G. Cameron, Hugo D. Critchley, Paul W. Davenport, Justin S. Feinstein, Jamie D. Feusner, et al. "Interoception and Mental Health: A Roadmap." *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* 3, no. 6 (June 2018): 501–513.
- Kok, Bethany E., and Barbara L. Fredrickson. "Upward Spirals of the Heart: Autonomic Flexibility, as Indexed by Vagal Tone, Reciprocally and Prospectively Predicts Positive Emotions and Social Connectedness." *Biological Psychology* 85, no. 3 (December 2010): 432–436.
- Lokhorst, Gert-Jan. "Descartes and the Pineal Gland." *The Stanford Encyclopedia of Philosophy (Fall 2020 Edition)*, n.d. <https://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=pineal-gland>.
- Mahendra Nath Gupta. *The Gospel of Ramakrishna*. New York, NY, USA: Vedanta Society, 1947.
- Merabet, Lotfi B., Roy Hamilton, Gottfried Schlaug, Jascha D. Swisher, Elaine T. Kiriakopoulos, Naomi B. Pitskel, Thomas Kauffman, and Alvaro Pascual-Leone. "Rapid and Reversible Recruitment of Early Visual Cortex for Touch."

THE NEW PHILOSOPHY, JANUARY–DECEMBER 2020

Edited by David C. Burr. *PLoS ONE* 3, no. 8 (August 27, 2008): e3046.

Mookerjee, Ajit. *Kundalini: The Arousal of the Inner Energy*. London: Thames and Hudson, 1982.

Morris, H. N. "New Church Propaganda in India." *New Church Herald* (October 17, 1931).

New Church Messenger Editor. "The Church in Asia." *New Church Messenger*, 1909.

Nivethitha, L., A. Mooventhan, N. K. Manjunath, Lokesh Bathala, and Vijay K. Sharma. "Cerebrovascular Hemodynamics during Pranayama Techniques." *Journal of Neurosciences in Rural Practice* 08, no. 01 (January 2017): 060–063.

Paramahansa Yogananda. *Autobiography of a Yogi*. Self Realization Fellowship, 1998.

———. *Kriya yoga (From: The Great Light of God)*, n.d. http://yogananda.com.au/podcast/p_yogananda_kriya.html.

———. *The Yoga of Jesus*. Self Realization Fellowship, 2007.

Presti, David. *Foundational Concepts in Neuroscience: A Brain Mind Odyssey*. 1st ed. w. w. Norton and Company, 2016.

Rothrock, John F. MD. "Patent Foramen Ovale (PFO) and Migraine." *American Migraine Foundation*. Last modified July 6, 2008. <https://americanmigrainefoundation.org/resource-library/patent-foramen-ovale-pfomigraine/>.

Schnarr, Eleanor. "Swedenborg and the Ancient Art of Internal breathing." *Our Daily Bread* (July 2020).

- . “Swedenborgianism in India: D. Gopaul Chetty and the Marriage of Swedenborg and Saiva Siddhanta.” *Our Daily Bread: A Ministry of the Swedenborgian Church of North America*, December 2, 2020. http://spiritualquesters.org/?p=1480&fbclid=IwAR3pbCXgEfs6-U_EWBtK3p6u4KfLDdeoLONQ0zw1dcmKhqA7ETT4sQW0.
- Sharp, Paul B., Bradley P. Sutton, Erick J. Paul, Nikolai Sherepa, Charles H. Hillman, Neal J. Cohen, Arthur F. Kramer, et al. “Mindfulness Training Induces Structural Connectome Changes in Insula Networks.” *Scientific Reports* 8, no. 1 (December 2018): 7929.
- Sherma, Rita D. “Sacred Immanence: Reflections of Ecofeminism in Hindu Tantra.” In *Purifying the Earthly Body of God: Religion and Ecology in Hindu India*, edited by Lance E. Nelson, 1999.
- Swami Anandakapila Saraswati. “Kriya: Internal Alchemy of the Soul.” *JOY: The Journal of Yoga* 3, no. 6 (Fall 2004): 4.
- Swami Lakshman Joo. *Vijnana Bhairava: The Practice of Centering Awareness*. 3rd ed. Varanasi, India: Indica Books, 2015.
- Swami Sri Yukteswar. *The Holy Science*. Eighth. Los Angeles, ca: International Publications Council of the Self Realization Fellowship, 1990.
- Swedenborg, Emanuel. *Arcana Coelestia*. 3rd ed. Vol. 3. 8 vols. Swedenborg Society, 1953.
- . *Divine Love and Wisdom*. Translated by Bruce Rogers. Bryn Athyn, PA: General Church of the New Jerusalem, 1999.
- . *Economy of the Animal Kingdom*. Translated by Augustus Clissold M.A. 2nd ed. Vol. 2. 2 vols. New York, NY, USA: swedenborg scientific association, 1955.

THE NEW PHILOSOPHY, JANUARY–DECEMBER 2020

- . *Heaven and Hell*. Translated by George F Dole. New York, NY, USA: Swedenborg Foundation, 2000.
- . *On Tremulation*. Translated by Carl Theophilus Odhner. Bryn Athyn, PA: Swedenborg Scientific Association, 1866.
- . “Opus de Cerebro (codex 55).” Bryn Athyn, PA, n.d.
- . *Secrets of Heaven*. Translated by Lisa Hyatt Cooper. Vol. 1. West Chester, PA, 2008.
- . *Spiritual Experiences*. Translated by Kurt P Nemitz and Durban Odhner. Bryn Athyn, PA: Academy of the New Church, 1998.
- . *The Cerebrum*. First. Vol. 1. 2 vols. Swedenborg Scientific association, 2010.
- . *True Christianity*. Translated by Jonathan Rose. West Chester, PA: Swedenborg Foundation, 2010.

Swedenborg Foundation. “The Life of Emanuel Swedenborg.”
Swedenborg Foundation. <https://swedenborg.com/emanuel-swedenborg/about-life/>.

Tansley, Isaiah. “The New Church in India and the English Conference.” *New Church Life* (1914). Tornberg, D.C.F., H. Marteus, U. Schedin, K. Alving, J.O.N. Lundberg, and E. Weitzberg. “Nasal and Oral Contribution to Inhaled and Exhaled Nitric Oxide: A Study in Tracheotomized Patients.” *European Respiratory Journal* 19, no. 5 (May 1, 2002): 859– 864.

Woods, Scott W., Dennis S. Charney, Wayne K. Goodman, and George R. Heninger. “Carbon Dioxide—Induced Anxiety: Behavioral, Physiologic, and Biochemical Effects of Carbon Dioxide in Patients With Panic Disorders and Healthy Subjects.” *Archives of General Psychiatry* 45, no. 1 (January 1, 1988): 43–52.

Zelano, Christina, Heidi Jiang, Guangyu Zhou, Nikita Arora, Stephan Schuele, Joshua Rosenow, and Jay A. Gottfried. "Nasal Respiration Entrain Human Limbic Oscillations and Modulates Cognitive Function." *The Journal of Neuroscience* 36, no. 49 (December 7, 2016): 12448–12467.

"List of Colonial and Foreign Addresses in the General Conference Year Books India/British India, 1876-1910," n.d. General Conference Library Archives.