CREDIBLE CATHOLIC Big Book - Volume 2

EVIDENCE OF OUR
TRANSPHYSICAL SOUL

Content by: Fr. Robert J. Spitzer, S.J., Ph.D.

Credible Catholic Big Book Volume Two

Evidence of Our Transphysical Soul

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Editor's Note: Much of the material presented in this chapter was originally published by Ignatius Press in *The Soul's Upward Yearning: Clues to Our Transcendent Nature from Experience and Reason*. It is reprinted with permission. To read more, you can find the book at the following link: https://www.ignatius.com/The-Souls-Upward-Yearning-P1894.aspx

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This Volume supports The Catechism of the Catholic Church, Part One - The Profession of Faith

NOTE: All teachings in the **Credible Catholic** materials conform to the **Catechism of the Catholic Church** (**CCC**) and help to explain the information found therein. **Father Spitzer** has also included materials intended to counter the viral secular myths that are leading religious people of all faiths, especially millennials, to infer that God is no longer a credible belief. You will find credible documented evidence for God, our soul, the resurrection of our Lord, Jesus Christ, and the Catholic Church, as well as spiritual and moral conversion.

Part One from the CCC is titled, *THE PROFESSION OF FAITH*. The first 5 Volumes in the *Credible Catholic Big Book* and *Credible Catholic Little Book* fall into Part One. Part Two of the CCC is titled, *THE CELEBRATION OF THE CHRISTIAN MYSTERY*. This is covered in Volumes 6 through 12. Part Three of the CCC is *LIFE IN CHRIST* and information related to this topic will be found in Volumes 13 through 17. Credible Catholic Big and Little Book Volumes 18 through 20 will cover Part Four of the CCC, Christian Prayer.

The Big Book can also be divided into two major movements – the rational justification for God, the soul, Jesus, and the Catholic Church (Volumes 1 through 6), and life in Christ through the Catholic Church (Volumes 9 through 20). If you would like a preview of this dynamic, please go to Volume 6 (Chapter 7) at the following link – Chapter 7 – Where Have We Come From and Where are We Going?

We all need to be Credible Catholics. St. Augustine said in his work, The Literal Meaning of Genesis,

"Usually, even a non-Christian knows something about the earth, the heavens and other elements... Now, it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; ...If they find a Christian mistaken in a field which they themselves know well and hear him maintaining his foolish opinions about our books, how are they going to believe those books in matters concerning the resurrection of the dead, the hope of eternal life, and the kingdom of heaven..."

If we don't respond to these secular myths, who will?

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Evidence of Our Transphysical Soul

Introduction

Christians have always believed in a transphysical soul capable of surviving bodily death because of belief in the apostolic testimony of Jesus' resurrection and His promise of that resurrection to us. The evidence for this from contemporary historical criteria, the Shroud of Turin, and contemporary scientifically validated miracles is discussed extensively in Volume 3. Yet before we look into the historicity and revelation of Jesus, we will want to examine closely the evidence available to experience and reason from the natural world and our inner world. Though the classical and medieval periods reflected on this evidence, the contemporary age (the 20^{th} and 21^{st} centuries) has brought it to fruition with several new medical and scientific discoveries. This evidence may be grouped into six large categories that do not exhaust the subject:

- 1. Evidence of a transphysical soul capable of surviving bodily death from peer-reviewed medical studies of near death experiences amd terminal lucidity (Chapter One).
- 2. Evidence of our desire for and awareness of five transcendental notions perfect truth, perfect love, perfect justice-goodness, perfect beauty, and perfect home, all of which point to our transcendental powers and nature (Chapter Two).
- 3. Evidence of the presence of the Divine to our interior awareness as explored in Rudolf Otto's study of the numinous experience, Mircea Eliade's studies of the intuition of the sacred, Immanuel Kant's and John Henry Newman's studies of conscience, and Carl Jung's and JRR Tolkien's explorations of archetypal myths portraying a cosmic struggle between good and evil (Chapter Three).
- 4. Evidence of a transcendental dimension of human cognition in heuristic notions required for abstract conceptual ideas and meaningful syntactical language (Chapter Four).
- 5. Evidence of a transcendental dimension of human cognition required for transalgorithmic mathematical intuition revealed by Gödel's Theorem and its contemporary re-statements (Chapter Four).
- 6. Evidence of the transphysical nature of human self-consciousness revealed by Chalmers' hard problem of consciousness as well as the trialistic interactionism of Sir John Eccles, Sir Karl Popper, Dr. Henry Stapp, and Dr. Friedrich Beck.

As it turns out, all of the above transcendental characteristics give rise to our capacity for human freedom. Self-consciousness not only enables us to be aware of ourselves, but to choose among two fundamental options to give ourselves self-definition over the course of time:

¹ See Spitzer 2015 The Soul's Upward Yearning for a much more complete treatment of this evidence and some

- 1. Desires toward self-aggrandizement and possession of others and the material world, or
- 2. Desires toward transcendence, God, others, and the service of love and the good.

In the Seventh and final Chapter of this Volume, we will discuss the constituents of our human freedom as well as the impeding of it caused by original sin – the darkening of our freewill after the fall. Yet all is not lost – for Jesus Christ has unleashed the unconditional love and mercy of God, and given us the power of the Holy Spirit in our hearts and in the Church. We will give the evidence and the significance of His redemptive sacrifice and resurrection in Volumes 3&4.

Chapter One Evidence of the Soul and Heaven from Near Death Experiences – Back to top

Introduction

I cite the evidence of near-death experiences with some trepidation, because there are many books written on this subject that are not scientific or based on any clinical, cross-cultural, long term study, but rather on a few anecdotes taken to the extreme. Some of these nonscientific books have rather manipulative agendas, and some are quite cultic in character. These problematic accounts do not mitigate the excellent longitudinal studies that have been carried out by Parnia et al. at Southampton University (2014),², van Lommel et al., reported in the prestigious British medical journal *The Lancet*,³ the two studies carried out by Kenneth Ring on near-death experiences,⁴ and his later study of near-death experiences of the blind,⁵ and Dr. Janice Holden's analysis of veridical evidence in NDE's from thirty-nine independent studies.⁶ There are additional careful longitudinal studies cited in this Chapter,⁷ as well as many studies reported in the *Journal of Near-Death Studies* published by the International Association for Near-Death Studies (peer-reviewed).⁸

Before responding to physicalists' objections, we will want to clarify some terms and circumstances surrounding this remarkable entryway into the realm of survival of bodily death and the existence of transphysical consciousness.

² Parnia et al 2014.

³ van Lommel 2001.

⁴ Ring 1980.

⁵ Ring 1999.

⁶ Janice Holden 2009. *Handbook of Near Death Experiences: Thirty Years of Investigation* (Connecticut: Praeger Press).

⁷ Basford (1990), Fenwick & Fenwick (1995), Greyson & Flynn (1984), Roberts & Owen (1988), Sabom (1982), Zaleski (1987), Moody (1988), Greyson (2010), Cook et al (1998), Kelly et al (2000).

⁸ See the website www.iands.org for a complete index of 135 topics concerned with research and longitudinal studies of NDEs.

I. **Definitions and Descriptions – Back to top**

In 1982, a Gallup survey indicated that approximately 8 million adults in the United States had had a near-death experience (a significantly large population from which to take accurate samples). The people sampled reported having some of the following ten characteristics, eight of which appear to be unique to near-death experiences (in italics):

- *out of body experience*
- accurate visual perception (while out of body)
- accurate auditory perception (while out of body)
- feelings of peace and painlessness
- *light phenomena* (encounter with loving white light)
- life review
- being in another world
- encountering other beings
- tunnel experience
- precognition

According to the 2014 Parnia-Southampton University Study, approximately 9% of adults have a near death experience after cardiac arrest (Von Lommel *et al* 2001 found that 18% had a NDE), and according to the International Association of Near Death Studies (that publishes the peer-reviewed *Journal of Near Death Studies*), approximately 85% of children have near death experiences.

The Transphysical Component of Near Death Experiences

The transphysical component of a person having a near death experience may be described as follows: when a person undergoes clinical death (defined below), a transphysical component of that person leaves the physical body (frequently through a tunnel), emerging outside the physical body, and frequently looking down upon it. This transphysical component is completely intact without the physical body, and it is self-conscious and capable of seeing and hearing (without the biological organs associated with those functions). This transphysical component retains all its memories, and appears to have acute recall and memory functions (without use of the brain). It is aware of its self-identity and its distinction from others – but it is more than self-consciousness. It has a remnant of its former embodiment – particularly the presence and sense of extendedness. Though it is *not* physical (constituted by and subject to the laws of physics), it is like an ethereal remnant of the physical body. It is not limited by physical laws (such as gravity), or the restrictions imposed by physical mass (such as walls or roofs). It can be called into a spiritual or heavenly domain in which it can encounter spiritual beings like itself (in human form) as well as wholly transcendent beings greater than itself (such as a loving white light). It can communicate with these beings without the use of voice and sounds. Though it has autonomy and self-identity, it does not have control over most dimensions of the out of body experience; for example, it is moved outside of its body, transported to a transphysical domain, and called back into its body by

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⁹ See Gallup and Proctor 1982.

some higher transphysical power. In order to distinguish it from its former physical manifestation, I will refer to it as "a transphysical component."

Clinical Death

After a heart attack, drowning, or significant trauma, people frequently undergo severe oxygen deprivation leading to a gradual reduction of electrical activity in the brain, resulting in a "shutdown" of higher cerebral functioning as well as most functions of the lower brain (after 20 to 30 seconds). This phenomenon is marked by a flat EEG (electroencephalogram) indicating an absence of electrical activity in the cerebral cortex (generating higher cerebral functioning) and the absence of gag reflex as well as fixed and dilated pupils, indicating a significant reduction of lower brain functioning. In this state, sensory organs are non-functional, both in themselves, and in the brain's capacity to process their signals. Furthermore, higher cerebral functions such as thinking, processing memories, and linguistic functions would either be completely absent or reduced to insignificance. Lower brain activity is also minimized, though there may be some sporadic and minimal "sputtering" of pockets of deep cortical neurons in those areas.

Dr. Eben Alexander, a neurosurgeon and professor at the University of Virginia Medical School, who underwent a severe coma from encephalitis (and was monitored throughout his comatose state), described it as follows:

My synapses—the spaces between the neurons of the brain that support the electrochemical activity that makes the brain function — were not simply compromised during my experience. They were stopped. Only isolated pockets of deep cortical neurons were still sputtering, but no broad networks capable of generating anything like what we call 'consciousness'. The E. coli bacteria that flooded my brain during my illness made sure of that. My doctors have told me that according to all the brain tests they were doing, there was no way that any of the functions including vision, hearing, emotion, memory, language, or logic could possibly have been intact. ¹⁰

The Relationship between the Transphysical Component and the Brain

Given the above definition of "clinical death" and the description of the transphysical component, it appears that we will have to modify contemporary views of the origin of consciousness. Currently, consciousness is presumed to originate with brain functioning, but if the thousands of monitored cases of clinical death are accurate, and Alexander's and others' assessment of the absence and/or reduction of brain function are correct, and the verifiable reports of consciousness during clinical death are also accurate, then it seems highly unlikely that consciousness originates with the brain. Instead it seems that consciousness originates from a transphysical component, and that *it* interacts with the brain to channel the data of consciousness to our physical body. Thus, consciousness can exist apart from the body, but if its activities and effects are to be channeled through the body, it is done through the brain. This is thoroughly discussed below in Chapter Five (Section III). There is a close parallelism between transphysical

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¹⁰ Alexander 2012.

consciousness and the brain's interaction with it. It appears that there is some redundancy or overlapping in the subsidiary functions of consciousness produced by the transphysical component and the brain (such as memory, recall, visual and auditory imagination, and other similar functions). Eben Alexander describes it as follows:

Brain activity and consciousness are indeed profoundly tied up with one another. But that does not mean that those bonds can't be loosened, or even cut completely. The question of questions is whether the deep parallelism between brain function and human consciousness means that the brain actually produces consciousness. In the wake of my experiences during my week in a coma, my answer is a very confident "No." ¶ Many scientists who study consciousness would agree with me that, in fact, the hard problem of consciousness is probably the one question facing modern science that is arguably forever beyond our knowing, at least in terms of a physicalist model of how the brain might create consciousness. In fact, they would agree that the problem is so profound that we don't even know how to phrase a scientific question addressing it. But if we must decide which produces which, modern physics is pushing us in precisely the opposite direction, suggesting that it is consciousness that is primary and matter secondary. ¹¹

This view of the transphysical origin of human consciousness arises primarily out of the studies of near death experiences (cited below), but is not accepted by some in the current scientific community. Some attempts have been made to explain near death experiences from a purely physiological point of view to restore credibility to the prevailing view of a physical origin of human consciousness (e.g. Blacher 1979; Blackmore 1993; Nuland 1994¹²; and Rodin 1980). Several more contemporary physicalist explanations are assessed below in Section IV. In general, these hypotheses do not account for the three kinds of verifiable evidence discussed in Sections II and III below: (1) veridical evidence -- verification of reports of empirical data occurring during clinical death by independent investigators, (2) visual perception by 80% of blind people during clinical death, and (3) verification of reports of previously unknown data given by deceased relatives and friends during clinical death. The inability of purely naturalistic explanations to account for this abundance of verified data seriously challenges their adequacy – leaving the door open to transphysical explanations of consciousness – like the one given below in Chapter Five.

Near death experiences give strong evidence for a transphysical ground of consciousness, though studies in physics, medicine, and philosophy are also beginning to lean in this direction. The Nobel Prize winning neurophysiologist Sir John Eccles has set out a serious theory of *tri*-alist interactionsim. Dualist theories hold that there is a separate transphysical ground of consciousness (termed "mind" or "soul" or "self") that works through the brain to produce

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¹¹ Alexander 2012.

¹² Nuland, S.B. (1994). How we die: Reflections on life's final chapter. (Norwalk, CT: Hastings House).

¹³ In his early work, Eccles declared himself to be an "interactionist *dualist*," but when he realized the need for a "field of mediation" between the immaterial "soul" and the material body, and saw quantum field theory as a viable candidate for this mediation, he along with his "co-theorist," Sir Karl Popper, moved to a theory of "*tri*-alistic" interactionism. See above Chapter Five for a detailed explanation. See also Eccles 1989 and 1990; also Popper and Eccles 1984.

activities within physical embodiment.¹⁴ In order to avoid the perennial problem of dualism – an immaterial substance (such as a conceptual idea) affecting and being affected by a material substance (e.g., the biophysical constituents of the brain) – Eccles proposes a "*tri*-alist" interactionism in which quantum fields mediate the interaction of the immaterial soul and the material brain.¹⁵ As will be seen, this proposal has considerable explanatory power not only to account for the data of near death experiences, but also heuristic notions, Lonergan's horizon of complete intelligibility, the implications of Gödel's enigma, and the hard problem of consciousness (see Chapter Five, Sections II and III).

Several other philosophers agree with Eccles' viewpoint, and J.N. Watson has argued convincingly that current brain physiology cannot explain many of the activities of human consciousness. The well-known philosopher of mind, David Chalmers, has formulated what is called "the hard problem of consciousness" showing that the inner world of subjective experience is not explicable by physical-biological processes (found in the brain). This implies that some transphysical component is necessary to fully explain conscious activity. Other philosophers such as Thomas Nagel concur with this assessment and develop additional arguments to substantiate the need for a non-reductionistic metaphysical solution to the hard problem of consciousness. "Non-reductionistic" refers to models of consciousness that advocate the improbability or impossibility of explaining conscious activities through physical processes alone.

Physicists such as Henry Stapp (2007)¹⁹ and Friedrich Beck (2008)²⁰ substantiate Eccles' *tria*list interactionism by using von Neumann's orthodox interpretation of quantum field theory to show the possibility of immaterial-material interaction through the mediation of quantum fields. Inasmuch as observation (immaterial input) can collapse a quantum wave function to an eigenstate (a state which can affect classical physical systems – such as biological systems in the brain), quantum fields may in fact mediate immaterial and material components of consciousness (see Chapter Five, Section III).²¹

The eminent physicist, Roger Penrose, and his medical colleague, Stuart Hameroff, ²² distinguish themselves from Stapp, Beck, and Eccles by using quantum theory to construct a *physicalist* model of consciousness. Unlike Stapp, Beck and Eccles, Penrose and Hameroff do not seem to be aware of the fuller problem of human consciousness (e.g., Chalmers' hard problem of consciousness and the problem of conceptual ideas). They are, however, acutely aware of Gödel's enigma – and how this enigma suggests that human intelligence is beyond *any* set of

See also Chalmers 1997.

¹⁴ Eccles has provided a book of essays by scientists and philosophers about the cogency of strong interactionist dualism in Eccles, ed. 1983.

¹⁵ See Eccles 1989 and 1990.

¹⁶ See J.N. Watson 1983.

¹⁷ Chalmers 2010.

¹⁸ Nagel 1974, pp. 435-450. See also Nagel 2012.

¹⁹ See Stapp 2007.

²⁰ See also Beck and Eccles 1992 and 2003)

²¹ See Stapp 2007.

²² Hameroff 1998, pp. 1869-1896.

See also Penrose and Hameroff 1995, 99112.

See also Hameroff and Penrose 1996.

deterministic rules or algorithms. They believe they have a solution for how the human brain (considered to be a *physical* entity alone) can transcend rules and algorithms through quantum activity (producing quantum computation) in brain microtubules. They theorize that quantum vibrations in the microtubules in brain neurons may account for the possibility of non-deterministic quantum computation in the brain. However, problems and gaps in their theory may compel them to look for a mind-like or conscious component in addition to physical systems (See Chapter Five).

Neuroscientists (such as Mario Beauregard and Denyse O'Leary) have tried to make a case for "a spiritual brain" (i.e. a transphysical soul interacting with a physical brain) on the basis of near death experiences applied to neuroscientific research²⁴ (see below Section IV).

It would not be surprising to see the evidence of a transphysical ground of consciousness from near death experiences find a theoretical confluence with *tri*alist interactionist theories (Eccles, Popper, and Beck), non-reductionistic philosophies (Chalmers and Nagel), orthodox interpretations of quantum theory (Stapp and Beck), and quasi-dualistic neuroscientific theories (Beauregard and O'Leary). I have attempted to formulate a case and model for such a confluence below in Chapter Five (Section III). It combines the trialist interactionist model of Eccles et al. with a hylomorphic model based on the physical and ontological theories of Michael Polanyi and Bernard Lonergan. This combined model, which I term "hylomorphic trialist interactionism," is capable of addressing five major areas of transphysical self-consciousness:

- 1. The survival of self-consciousness after bodily death implied by near death experiences (see below in this Chapter),
- 2. The transphysical nature of heuristic notions and conceptual ideas (see below Chapter Four, Section II),
- 3. The transphysical nature of the horizon of complete intelligibility (see below Chapter Four),
- 4. The transphysical implications of Gödel's enigma (see below Chapter Four, Section I),
- 5. The transphysical nature of the inwardness and self-apprehension of self-consciousness (Chalmers' hard problem of consciousness -- see below Chapter Five, Sections II&III).

We may now proceed to the evidence of transphysical consciousness from near death experiences.

II. Four Important Studies – Back to top

The studies of Dr. Sam Parnia et al (2014), Pim van Lommel et al (2001), Dr. Kenneth Ring et al (2006), and Dr. Janice Holden (2007), provide significant verifiable evidence of

²³ Penrose and Hameroff have been criticized for making unexplained (and seemingly unjustified) leaps from quantum activity in brain microtubules (which is hypothetical) to quantum computation in the brain and then to human self-consciousness. The difficulties with this theory are assessed below in Chapter Five).

²⁴ See Beauregard and O'Leary 2008, and Beauregard 2013.

²⁵ Polanyi 1968, 1969, 1970, 1971.

²⁶ Lonergan 1992, pp. 270-278

survival of human consciousness after clinical death. There are many other careful studies that corroborate and extend their findings not explicitly discussed in this article, but are important for readers interested in more extensive research. The following studies are fully cited in the References to this book: Basford 1990, Fenwick & Fenwick 1995, Greyson & Flynn 1984, Roberts & Owen 1988' Sabom 1982, and Zaleski 1987. Dr. Bruce Greyson and Dr. Emily Kelly have made longitudinal studies of near death phenomena (with control groups) at the University of Virginia's Division of Perceptual Studies (in the Department of Psychiatry in the School of Medicine) which is partially dedicated to the scientific study of near death experiences. ²⁷

II.A The Parnia-Southampton University Study (2014)

In 2014, scientists under the direction of Dr. Sam Parnia at Southampton University completed the largest study of near death experiences. It was a 4-year study of 2,060 patients who had suffered cardiac arrest in hospitals in the U.S., U.K., and Austria. The researchers found that 9% of the survivors (185 patients) had a *near death experience*, though many more—an additional 30% (618 patients) had some sense of postmortem consciousness and feelings which did not meet the full description of an NDE (see above, Section 1). Some of the patients (who had an NDE) maintained visual awareness for up to three minutes after cardiac arrest – long after the brain shuts down (which occurs 20-30 seconds after cardiac arrest).

This study advanced those of van Lommel, Ring, and Holden by taking account of experiential markers showing how long patients maintain awareness after clinical death (after electrical activity in the brain is almost completely absent). For example, a patient reported hearing two "bleeps" from a machine that sounds in 3-minute intervals, revealing that he maintained awareness for more than three minutes after cardiac arrest. This patient was not only aware of sounds in the room, but was also able to accurately report with heightened visual acuity what was going on in the operating room. The events reported were verified by researchers after resuscitation.

II.B. The van Lommel et al Study

The Lancet reported the findings of a longitudinal study of near death experiences carried out by four researchers in Holland. The study surveyed 344 cardiac patients who were successfully resuscitated after cardiac arrest in ten Dutch hospitals. It compared demographic, medical, pharmacological, and psychological data between patients who reported near-death experiences (hereafter "NDE") and patients who did not (controls) after resuscitation. It studied life changes after NDE, and compared the groups two and eight years later.²⁹

This study found that 62 adult patients (18% -- roughly one out of every five) resuscitated from cardiac arrest experienced an NDE with some of the characteristics described above. No patients reported distressing or frightening NDEs. The 18% positive response does not necessarily

http://www.medicine.virginia.edu/clinical/departments/psychiatry

²⁸ Parnia *et al* 2014.

²⁹ See van Lommel, et al 2001.

mean that the others did not have an NDE. In fact, Parnia et al. believe that many of those who could not remember having an NDE may have been adversely affected by morphine or other medications administered during the resuscitation procedure.³⁰ There may be other mitigating factors such as age or prolonged CPR, and some may have been unwilling to recount it (for fear of being thought to be unbalanced). This percentage enabled the van Lommel researchers to conclude that the experiences associated with NDEs were *not* likely to have been caused by physiology alone:

With a purely physiological explanation such as cerebral anoxia for the experience, most patients who have been clinically dead should report one.³¹

The researchers concluded from this:

Our most striking finding was that Near-Death Experiences do not have a physical or medical root. After all, 100 percent of the patients suffered a shortage of oxygen, 100 percent were given morphine-like medications, 100 percent were victims of severe stress, so those are plainly not the reasons why 18 per cent had Near-Death Experiences and 82 percent didn't. If they had been triggered by any one of those things, everyone would have had Near-Death Experiences.³²

Van Lommel's rationale does not conclusively rule out a physiological explanation of near death experiences, because there might be other physical factors beyond those mentioned in his study. However when van Lommel's rationale is combined with the three kinds of verifiable evidence (discussed in Section III below), it virtually rules out the possibility of a purely physiological explanation of near death experiences, indicating the survival of human consciousness after clinical death.

Of the 62 patients reporting an NDE, all of them experienced some of the following ten characteristics, according to the following distribution:

- (1) Awareness of being dead (50%)
- (2) Positive emotions (56%)
- (3) Out of body experience (24%)
- (4) Moving through a tunnel (31%)
- (5) Communication with light (23%)
- (6) Observation of colors (23%)
- (7) Observation of a celestial landscape (29%)
- (8) Meeting with deceased persons (32%)
- (9) Life review (13%)
- (10) Presence of border $(8\%)^{33}$

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³⁰ Parnia et al. 2014.

³¹ van Lommel, *et al* 2001, p. 2039.

³² van Lommel, et al 2001, p. 2044.

³³ van Lommel, *et al* 2001, p. 2041.

This study also reported corroborative veridical out-of-body experiences. These experiences enabled patients to have sensorial knowledge which they were not able to have through their physical bodies. In other words, if these patients had not been in an "out-of-body" state, they would never have been able to experience the data they accurately reported.

The corroborated veridical sensorial knowledge by both sighted and blind patients is very significant because there does not appear to be any physical explanation for these corroborated phenomena, leading to the conclusion that there must be some form of nonphysical conscious existence (including self-consciousness, memory, intelligence, and self-identity). Van Lommel and his team conclude as follows:

How could a clear consciousness outside one's body be experienced at the moment that the brain no longer functions during a period of clinical death with flat EEG? . . . Furthermore, blind people have described veridical perception during out-of-body experiences at the time of this experience. NDE pushes at the limits of medical ideas about the range of human consciousness and the mind-brain relation. In our prospective study of patients that were clinically dead (flat EEG, showing no electrical activity in the cortex and loss of brain stem function evidenced by fixed dilated pupils and absence of the gag reflex) the patients report a clear consciousness, in which cognitive functioning, emotion, sense of identity, or memory from early childhood occurred, as well as perceptions from a position out and above their 'dead' body. 34

Notice that van Lommel's study indicates that blind people see during clinical death. This finding is corroborated in greater detail by Dr. Kenneth Ring and his team (see below II.C).

II.C. Dr. Kenneth Ring's Studies of the Blind

Ring, Cooper, and Tart (1999), also reported in Ring and Valarino (2006), focused their research on near death experiences of the blind. Ring, Cooper, and Tart studied 31 blind patients (21 of whom had a near death experience and 10 of whom had out-of-body experiences only). Of these 31, 14 were blind from birth and evidently had no experience of seeing, and 17 had some experience of seeing *in the past* (though they were blind at the time of their near death experience or out-of-body experience). Ring summarizes his findings as follows:

Among those narrating NDEs, not only did their experiences conform to the classic NDE pattern, but they did not even vary according to the specific sight status of our respondents; that is, whether an NDEr was born blind or had lost his or her sight in later life, or even (as in a few of our cases) had some minimal light perception only, the NDEs described were much the same. Furthermore, **80 percent** of our thirty-one blind respondents claimed to be able to see during their NDEs or OBEs, and, like

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³⁴ van Lommel, *et al* 2001. P. 2045.

Vicki and Brad, often told us that they could see objects and persons in the physical world, as well as features of otherworldly settings.³⁵

Ring, Cooper, and Tart also found that the quality of perception was quite high among the majority of blind patients who reported seeing during their near-death experience:

How well do our respondents find they can see during these episodes? We have, of course, already noted that the visual perceptions of Vicki and Brad were extremely clear and detailed, especially when they found themselves in the otherworldly portion of their near-death journey. While not all of our blind NDErs had clear, articulated visual impressions, nevertheless enough of them did, so that we can conclude that cases like Vicki's and Brad's are quite representative in this regard.³⁶

What about the 20 percent who reported that they could not remember themselves seeing? There are two explanations: (1) they did not, in fact see anything during their near-death experience, or (2) even though they seem to have had some kind of perception, they did not recognize it as "seeing." Ring comments about the latter phenomenon with respect to one of his patients as follows:

As one man, whom we classified as a nonvisualizer, confessed, because 'I don't know what you mean by seeing,' he was at a loss to explain how he had the perceptions he was aware of during his NDE.³⁷

This study is particularly important, because there is no physical explanation for the phenomenon described by it. The sight of these patients was completely impaired or almost completely impaired – *in their physical bodies*. Thus the only explanation for their sight would seem to be the capacity for visual perception in their *transphysical* state. This requires their continued existence after bodily death.

II.D. Consistency of Data in Moody, Ring, and van Lommel

In 1978, Dr. Raymond Moody wrote his first study of near death experiences entitled *Life After Life*. It was based on more than 100 case studies, but left several questions unanswered while revealing the need for a more sophisticated longitudinal study. Between 1978 and 1988, he completed that study after interviewing more than 1,000 patients who had had a near-death experience. He noticed that patients having near-death experiences reported having one or more of the following nine characteristics, (seven of which seem to be unique to NDEs):

- 1. a sense of being dead,
- 2. peace and painlessness,
- 3. the tunnel experience,

³⁵ Ring and Valarino 2006, p. 81.

³⁶ Ring and Valarino 2006, p. 81.

³⁷ Ring and Valarino 2006, p. 81.

- 4. people of light,
- 5. the Being of Light,
- 6. the life review,
- 7. rising rapidly into the heavens,
- 8. reluctance to return, and
- 9. out of body experiences/different time and place. 38

Moody's findings closely correlate with Ring's and van Lommel's. Ring divides his study into five stages of near-death experiences, while van Lommel divides his findings into ten features of near-death experiences. Ring's stages are as follows:

Peace	60%
Bodily separation	37%
Darkness/tunnel	23%
Light/beings of light	16%
Inner setting/paradise	10%

Notice the correlation with van Lommel's features:³⁹

Awareness of being dead	50%	(not reported by Ring)
Positive emotions	56%	(compared to Ring's 60% for what he
		describes as "peace")
Out of body experience	24%	(compared with 37% in Ring's study)
Moving through a tunnel	31%	(compared with 23% in Ring's study)
Communication with light	23%	(compared with 16% in Ring's study
Observation of colors	23%	(not reported by Ring)
Observation of a celestial landscape	29%	(compared with 10% in Ring's study)
Meeting with deceased persons	32%	(not reported by Ring, but reported by
		Moody ⁴⁰)
Life review	13%	(not reported by Ring)
Presence of border	8%	(not reported by Ring)

Evidently, the larger, more longitudinal study of Dutch patients experienced the tunnel, being/beings of light, and celestial landscapes more often than the smaller, less longitudinal, American group; while the American group experienced out-of-body survival more often. The differences in the data may be explained by the fact that most patients only experienced some of the above-mentioned features of near death experiences.

II.E. Dr. Janice Holden's Assessment of 39 NDE Studies

³⁸ Moody 1988, pp. 7-20.

³⁹ van Lommel, *et al* 2001, p. 2041.

⁴⁰ Moody's study is significant because it indicates how patients were transformed by these encounters with departed loved ones. See Moody 1993.

Dr. Janice Holden made a compendium of 107 cases in thirty-nine studies by thirty-seven authors in 2007⁴¹ in which veridical (verifiable) experiences were reported. She concluded as follows:

Using the most stringent criterion – that a case would be classified as inaccurate if even one detail was found to not correspond to reality – Holden found that only 8 percent involved some inaccuracy. In contrast, 37 percent of the cases – almost five times as many – were determined to be accurate by an independent objective source, such as the investigation of researchers reporting the cases. 42

The other 55 percent did not involve inaccuracies, but could not be completely independently verified by other sources. Therefore, of the 48 cases (45% of Holden's sample) qualifying as veridical (an unusual or unique report corroborated by an independent source), 8 cases (17%) had some inaccuracy while 40 cases (83%) were reported completely accurately (using the strictest criteria).

It is difficult to believe that this degree of verifiably accurate reporting which occurred at a time when there was no electrical activity in the cortex can be attributed to a physical or physiological cause.

In view of this fact, as well as the fact that many of the reported incidents reached beyond bodily capabilities of the patient, it is not unreasonable to conclude that these perceptions (as well as the self-consciousness which accompanied them) existed independently of bodily function, and could therefore, persist after bodily death.

III.

Three Kinds of Verifiable Evidence – Back to top

There are three ways of verifying the transphysical nature of near death experience reports:

- 1. Veridical reported data (all major longitudinal studies). 43
- 2. Visual perception of blind (primarily Ring and van Lommel).
- 3. Personal information about deceased individuals (primarily Greyson 2010, van Lommel 2010, Moody 1993, Cook et al 1998, and Kelly et al 2000).

As will be seen, each of these kinds of evidence can be verified by independent researchers after the fact, and all of them are exceedingly difficult (if not impossible) to explain by merely physical or physiological theories (such as hallucinations, anoxia, narcotics, etc.--see below section IV). We will examine each kind of evidence, and then assess the combined data.

⁴¹ Holden 2007, pp. 33-42.

⁴² Carter 2010, p. 217.

⁴³ Explored in all 15 studies mentioned in this Chapter – that is: Sam Parnia et al (2014), Pim van Lommel et al (2001), Kenneth Ring et al (2006), and Janice Holden (2007), Basford (1990), Fenwick & Fenwick (1995), Greyson & Flynn (1984), Roberts & Owen (1988), Sabom (1982), Zaleski (1987), Moody (1988), Greyson (2010), Cook et al (1998), Kelly et al (2000).

III.A Reported Veridical Data

Frequently during near death experiences, the transphysical component leaves the body, but does not go immediately to an other-worldly domain. Instead, it remains in the resuscitation room or in close or remote proximity to the body. As noted above, this transphysical component is self-conscious, and can see, hear, and remember. Its memories can be recalled after patients return to their bodies. Some of these reports have highly unusual or unique characteristics which are not part of ordinary resuscitation or hospital procedures. Many of these reports can be verified by independent researchers after patients return to their bodies. When all of these conditions have been met, and the unusual accounts have been verified to be 100% accurate, they are termed "veridical." Virtually every peer-reviewed study reports multiple instances of such veridical data. The following cases typify a much larger array of reports, many of which have been assessed by Dr. Janice Holden (see above Section II.E).

In the Pim van Lommel study cited above (Section II.B), one man who had been in a deep coma, later told a nurse that he recognized her and saw where she had placed his dentures during resuscitation efforts, and even described the cart into which she placed them. ⁴⁴ They were there, precisely as he described it.

Melvin Morse and Kim Clark report that a woman had knowledge of a shoe on a window ledge outside the hospital (not near the room where the patient was resuscitated, but next to a third-floor office where she was being interviewed). The psychologist who did the interview (Kim Clark) had to crawl along the ledge outside her window to verify the claim. The shoe was indeed there precisely as the patient had described it. Though the shoe could have been seen from a window, the detail with which the NDE patient described it could not have been detected from that window (a worn little toe, a shoelace beneath the heel). Clark concluded that:

"The only way she [the patient] could have had such a perspective was if she had been floating right outside and at very close range to the tennis shoe. I retrieved the shoe and brought it back to Maria; it was very concrete evidence for me."⁴⁶

Raymond Moody also reports similar veridical out-of-body experiences,⁴⁷ the most frequent of which are people who leave the operating room (after seeing the resuscitation efforts going on) and visit their relatives and friends in hospital waiting rooms (literally moving through walls). One patient reported seeing her young daughter wearing mismatched plaids (which was highly unusual and only knowable if she had actually been in the waiting room). Another woman overheard her brother-in-law talking to a business associate in the hospital waiting room in a very derogatory manner, and was able to report this back to him later.

⁴⁴ van Lommel, et al 2001, p. 2042.

⁴⁵ Morse 1990, p. 20.

⁴⁶Clark 1984, p.243.

⁴⁷ Moody 1988, pp. 17-20.

These veridical experiences are evidenced in every major study and help to corroborate the authenticity of the patients' claims to have been in an out-of-body state (with sensorial capabilities). These findings have been corroborated by many other studies, and the results have been correlated by Dr. Janice Holden (see Section II.E above) using the strictest criteria to determine the accuracy of those cases. She found that only 8% of patients reporting veridical data (who experienced unusual or unique occurrences during clinical death and corroborated by an independent source) had some degree of inaccuracy. 37% were reported perfectly accurately while 55% did not qualify as veridical.

These findings lend considerable probative force to the survival of human consciousness after bodily death, because they cannot be explained by physical causation. They apparently require a capacity to see and hear independently of the physical body, which cannot be explained by a physical model alone (such as hallucination arising out of narcotics, oxygen deprivation, revival of brain cells and neural functions). Such hallucinatory activity would be random and sporadic while the reports of patients correspond precisely to empirical data verified after the fact.

III.B Visual Perception of the Blind during Clinical Death

As noted above (Section II.C), Ring, Cooper, and Tart (1999), and Van Lommel (2001) did focused studies on the near death experiences of the blind. These patients (most whom were blind from birth) were able to see (most for the first time) during their near death experience. These accounts show that patients who do not have the physical capacity to see –report visual data accurately about their experiences during clinical death. Some of this data is veridical (highly unusual and therefore difficult to guess).⁴⁸

As noted above, Ring et al found that 80% of blind people had visual perception during clinical death, and that these perceptions were clear and accurate. Even though 20% of those in the study could not remember or understand themselves seeing, the 80% who *were* able to report sensorial knowledge were accurately reporting what they could not have seen with their physical bodies. Given the insurmountable difficulties of explaining this phenomenon physically (hallucinations, narcotics, oxygen deprivation, etc. – see below Section IV), it corroborates the likelihood of transphysical existence after clinical death. Furthermore, it shows the possibility of *transphysical* causes not only of consciousness, but also of vision, hearing, and memory. No adequate physical explanation has been offered for the visual perception of the blind during clinical death (see below Section IV).

III.C Meeting Deceased Persons in a Transphysical Domain

Many patients undergoing clinical death are moved from the physical world to an other-worldly or heavenly domain. Some of them see themselves crossing a border into a beautiful paradise in which many are greeted by deceased relatives or friends, Jesus, or a loving white light. Some patients may experience two or more of these phenomena. Some patients who are greeted by deceased relatives do not recognize them because they died before the patient was born. They

⁴⁸ See Ring, Cooper, and Tart 1999, and Ring and Valarino 2006, pp. 80-82.

often introduce themselves and reveal facts about themselves that the patients' relatives or friends are subsequently able to verify. Though this kind of evidence is not veridical (because it can't be corroborated as occurring during a patient's clinical death by an independent source), it has probative circumstantial value – particularly because it occurs in so many different cases of near death experiences.

Raymond Moody has written a book on these experiences entitled: *Reunions: Visionary Encounters with Departed Loved Ones.* ⁴⁹ It has also been studied by Dr. Jeffery Long ⁵⁰ and Dr. Pim van Lommel, ⁵¹ all of whom show patients' knowledge of facts about or from deceased relatives and friends not formerly known. Dr. Bruce Greyson has made a detailed study of these cases entitled: "Seeing Dead People Not Known to Have Died: Peak in Darien Experiences." ⁵² His colleague at the Division of Perceptual Studies (University of Virginia), Dr. Emily Kelly gives a careful report of their research in an article entitled "Near-Death Experiences with Reports of Meeting Deceased People." ⁵³ This article arose out of two previous studies (Cook, Greyson, & Stevenson, 1998 ⁵⁴; Kelly, Greyson, & Stevenson 2000 ⁵⁵). These researchers found that out of 553 cases of people reporting near death experiences, 13% experienced a deceased relative or friend (a lower statistic than the 37% reported by Fenwick & Fenwick in 1995 ⁵⁶). Most of these individuals reported seeing deceased *relatives* (and only 5% reported seeing deceased friends). Most of them were from a previous generation (parents or grandparents). Several individuals reported seeing a religious figure, usually Jesus, and several also reported seeing unrecognized figures along with relatives. ⁵⁷

One of the more important findings among these studies was the large number of patients who reported seeing people who were not close or even known. This finding militates against the hallucinatory expectation hypothesis – that dying individuals project an image of deceased loved ones who they would want to see in the afterlife. Kelly notes in this regard:

Although most people identified were emotionally close relatives, there were nonetheless a substantial number (32%) of people seen who were emotionally neutral or distant or whom the participant had never met. Many participants commented that seeing these people was unexpected and a 'surprise.' The expectation hypothesis seems a bit strained when we try to account for these numerous instances in which the deceased person was not someone the participant would particularly care about seeing....Furthermore, even among those participants who did see a loved one, the person seen was not always one whom the participant would presumably most expect or want to see. ⁵⁸

⁴⁹ Raymond Moody 1993.

⁵⁰ See Long 2010, Ch. 8.

⁵¹ See van Lommel 2010, pp. 310-319.

⁵² Greyson 2010.

⁵³ Kelly 2001, pp. 229-249.

⁵⁴ Cook, Greyson, and Stevenson 1998, pp. 377-406.

⁵⁵ Kelly, Greyson, and Stevenson 2000, pp. 39-45.

⁵⁶ Fenwick & Fenwick 1995, p. 163.

⁵⁷ Kelly 2001, pp. 238-239.

⁵⁸ Kelly 2001, p. 244.

When this is combined with the disclosure of information not previously known from deceased people (in Greyson 2010, van Lommel 2010, and Moody 1998), it suggests that clinically dead individuals encounter deceased people who are not a projection of wishful expectations. Though this kind of evidence is not as strong as veridical evidence (III.A), and the visual perception of blind people during clinical death (III.B), it provides another clue to a transphysical ground of consciousness and human existence.

IV. Response to Physicalist Explanations - Back to top

Before responding to physicalists' explanations, it may be helpful to briefly summarize the four kinds of evidence for transphysical consciousness after clinical (bodily) death:

- (1) Remarkable consistency surrounding ten features of the experience, seven of which are *unique* to near death experiences, two of which are shared with physical embodiment (positive emotions, and visual/auditory perception), and one of which is shared with out-of-body experiences (seeing one's body from above) in all 15 studies cited in Sections II and III above. ⁵⁹
- (2) Corroborated, veridical, sensorial knowledge by patients who were unconscious (more than thirty seconds after cardiac arrest) in all 15 studies cited in Sections II and III above.
- (3) Corroborated, veridical, sensorial knowledge by *blind* patients who were unconscious (primarily Ring, Cooper, and Tart 1999, Ring and Valarino 2006, and van Lommel 2001).
- (4) Reports of encounters with deceased people who were unexpected or unknown, and reports of unknown information disclosed by deceased people (primarily Greyson 2010, van Lommel 2010, Moody 1993, Cook et al. 1998, and Kelly et al. 2000).

As we shall see, physicalist explanations of near death experiences do not (and probably cannot) explain these combined phenomena. Though they can explain how a hallucination might be possible during clinical death, they do not explain how people can accurately report empirical data, how the blind can see, and how people can acquire previously unknown information about deceased individuals during the time of clinical death. A brief examination of the six major physicalist explanations will make this clear.

As noted above, several physicians and neuroscientists have tried to explain near death experiences by making recourse to hallucinations and other possible physical triggers. Dr. Mario Beauregard, neuroscientist at the University of Arizona, has responded to these physicalist explanations in his recent book, *Brain Wars* (2012a). His findings and responses have been verified by the Parnia et al. study which concludes that known physical explanations do not

⁵⁹ Dr. Sam Parnia et al (2014), Pim van Lommel et al (2001), Dr. Kenneth Ring et al (2006), and Dr. Janice Holden (2007), Basford (1990), Fenwick & Fenwick (1995), Greyson & Flynn (1984), Roberts & Owen (1988), Sabom (1982), Zaleski (1987), Moody (1988), Greyson (2010), Cook et al (1998), Kelly et al (2000).

account for visual awareness, clarity of thought, and positive emotions associated with NDE's. 60 The following is a brief summary of some of Beauregard's responses excerpted from that book.⁶¹

Perhaps the most famous physicalist explanation of OBEs (out of body experiences) was proposed by Olaf Blanke in 2003 which received an accolade from the journal *Nature* claiming that Blanke's research discovered the part of the brain in which OBEs are induced. Blanke and his team placed electrodes in the angular gyrus of the parietal lobe which triggered an "OBE-like" experience in a 43-year old patient with epilepsy. She claimed that she had left her body, but could only see the lower half of her body – her legs and lower trunk. As the experience progressed, she perceived her legs to be getting shorter and shorter. 62 In 2004 Blanke and his team reported that they had induced an atypical and partial OBE in three patients and autoscopy in four patients – in which the patient perceives a double from the vantage point of her physical body. 63

Beauregard responds to this with van Lommel's critique – first Blanke's stimulations of the parietal lobe produce *abnormal* bodily experiences, and secondly these abnormal experiences give rise to a *false* sense of reality⁶⁴ (e.g. legs growing shorter and seeing body doubles). These experiences are *illusory* whereas typical OBEs are not illusory. Patients leave their body, and see (and accurately remember and report) what is going on inside the operating room and how their physical bodies are situated relative to the people, events, and instruments in that room. Greyson adds to van Lommel's criticism by noting that if we accept Blanke's stimulations as typifying an OBE, we would be constrained to think that OBEs are illusions, but as we have seen throughout this chapter, there is nothing illusory about them – they give accurate descriptions of verifiable data almost all the time (only 8% minor inaccuracies according to Holden).

Beauregard then turns to Susan Blackmore's hypothesis (1993) that anoxia (oxygen deprivation in the dying brain) could lead to the firing of neurons responsible for visual perception – possibly leading to an experience of a white light at the end of a tunnel. Beauregard responds first with van Lommel's criticism (2001) – that 100% of dying people suffer from anoxia; so if anoxia is the cause of near death experiences, 100% of patients should have them (but in fact only 18% of adults do). ⁶⁵ Furthermore, the studies of Sam Parnia (2008 and 2014) show that several people have had near death experiences while feeling well – and therefore not suffering from anoxia.

Beauregard also looks into James Whinnery's hypothesis that "dreamlets" are a possible explanation of NDE's. 66 "Dreamlets" occur in the stressed brain (e.g. of fighter pilots) immediately prior to unconsciousness. This does not seem to be a plausible explanation of NDEs because Whinnery's research indicates that these individuals wake up confused and anxious – instead of having lucid recollections and positive life-transforming experiences.⁶⁷

⁶² See Beauregard 2012 (b) p 2.

⁶⁰ See Parnia et al. 2014 pp 40-47.

⁶¹ See Beauregard 2012 (b)

⁶³ See Beauregard 2012 (b) p 2.

⁶⁴ See Beauregard 2012 (b) p 3.

⁶⁵ See van Lommel 2001 p 2044.

⁶⁶ See Beauregard 2012 (b) p 3.

⁶⁷ See Beauregard 2012 (b) p 3.

Beauregard then turns to the hypothesis of narcotically induced hallucination as a possible explanation of NDEs. Researcher Karl Jensen conjectured that he could produce an NDE by inhibiting NMDA receptors (by ingesting small quantities of ketamine – a veterinary anesthetic). Though this did induce a sense of being out of body, the images in the hallucination were "weird" and perspectives were exaggerated. ⁶⁸ In contrast to this, patients having a near death experience perceive their surroundings in precisely the way they exist – e.g. inside the operating room (many of these perceptions have been verified by independent researchers after the fact – see above Section III.A).

Another recent explanation has been offered by neuroscientist, Michael Persinger, who proposes that he too can stimulate an NDE by using weak transcranial magnetic stimulation (TMS) of the temporal lobes. Beauregard, citing Greyson and the literature of epilepsy, shows that NDEs do not resemble the psychic states experienced by epileptic patients, and that transcranial stimulation of the temporal lobes does not result in experiences similar to NDEs, but rather in the psychic states associated with epilepsy. ⁶⁹

In 2013 (after Beauregard's book), Jimo Borjigin proposed another possible physicalist explanation for NDEs. During his experiments with rats, he discovered that a surge of electrical activity occurred in the brain (which he hypothesized *might* produce consciousness and an image) when rats experienced cardiac arrest. ⁷⁰ This hypothesis is not on the same level as the ones mentioned above for three reasons: (1) it was restricted to rats (not humans), (2) there is no evidence that the electrical surge in the brain produced either consciousness or an image, and (3) even if there were evidence that it produced consciousness and an image, there is no evidence that this consciousness-image resembles near death or out of body experiences. In short, this hypothesis does not give researchers anything to compare to NDEs or OBEs – it is a pure speculation without an identifiable frame of comparison, meaning that it does not yet qualify as a scientific hypothesis.

At the present time, neuroscience is not able to generate a credible physical explanation for the verified out of body phenomena in near death experiences. There is reason to believe that such explanations will never be able to do this. First, there is a radical discontinuity between those experiencing NDEs and those experiencing physically induced illusory states (e.g. in the studies of Blanke, Whinnery, Jensen, and Persinger). The former group (NDEs) has no electrical activity in the cerebral cortex (marked by a flat EEG) and virtually no electrical activity in the lower brain (fixed and dilated pupils and absence of gag reflex). However, the latter group (physically stimulated illusions) has both a functioning cortex and lower brain. Susan Blackmore presents the only case of a "dying brain" in which electrical activity is being diminished because of anoxia. Though this hypothesis resembles the diminished electrical activity in the brain during clinical death, it falls prey to both van Lommel's criticism (since 100% of dying people experience anoxia, 100% should have a near death experience if anoxia is the cause of NDEs), and Parnia's criticism – (there are patients who have NDEs without anoxia).

⁶⁸ Beauregard 2012(b) p 3.

⁶⁹ Beauregard 2012 (b) pp 3-4.

⁷⁰ Borjigin 2013. -

The second major difference between NDEs and physically stimulated illusion (hereafter "PSI") is that the latter do not resemble the former. Blanke's PSI gives rise to abnormal bodily experiences and a false sense of reality (instead of a clear and accurate perception of reality and one's place in it), Whinnery's PSI gives rise to a state of confusion and anxiousness in its aftermath (instead of clarity and lifelong positive transformation). Jensen's narcotically induced hallucination gives rise to false and weird images and exaggerated perspectives (unlike NDEs), and Persinger's PSI gives rise to psychic states associated with epilepsy (which are quite distinct from those associated with NDEs).

The third major difference between NDEs and physicalist explanations concerns the accurate veridical experience of both sighted and blind people during clinical death. There is no evidence of this occurring during anoxia or any of the above PSI phenomena. Even if PSIs could produce these effects, it would *not* prove that those effects had their origin in physical reality *alone*—i.e., that there is no *transphysical* dimension of consciousness. Indeed, there *must be* such a transphysical dimension of consciousness so that clinically dead individuals can accurately see and hear apart from and above their physical bodies. PSIs have certainly not given a *physical* explanation of how clinically dead individuals can see and hear apart from their physical bodies. Thus, even if PSIs could produce the effects of NDEs (which they are currently unable to do), it would only show that they had caused a *trans*physical state of consciousness to occur—a state of consciousness that can accurately see and hear apart from and above a clinically dead physical body. If PSIs could produce the same effect as NDEs it would only serve to show that stimulation of the brain caused a *separation* of a *trans*physical dimension of consciousness from the physical body—it would not disprove the existence of that *trans*physical dimension.

In sum, it is highly unlikely that physicalist explanations will ever be able to account for this last line of reasoning because it would require them to prove that merely physical phenomena can have unmistakably transphysical effects—which is at best a contradiction. Physicalist explanations *per se* are limited to showing how physical causes produce *physical* effects—nothing more. Therefore, the physicalists will have to either open the door to *transphysical* explanation, or leave the explanation of near death experiences to those who are open to the transphysical domain.

V.

Near Death Experiences, Love, and Resurrection – Back to top

As we have seen, there is considerable evidence of survival of human consciousness after clinical death, implying a transphysical dimension of human nature and a transphysical origin of consciousness. However, it does not show that this transphysical dimension of consciousness is *eternal*. Nevertheless, there are some *clues* that this transphysical condition is eternal – e.g. the love and benevolence of the white light as well as the love of Jesus and deceased relatives and friends, which seem to betoken the intention of a loving deity to fulfill our greatest desire, namely, unconditional love and joy with that deity throughout eternity. This last point deserves special consideration because in every instance of an encounter with the "being of light" in all of the above studies patients reported the experience to be one of intense love. The following case resembles hundreds of others reported by the above researchers:

I became very weak, and I fell down. I began to feel a sort of drifting, a movement of my real being in and out of my body, and to hear beautiful music. I floated on down the hall and out the door onto the screened-in porch. There, it almost seemed that clouds, a pink mist really, began to gather around me, and then I floated right straight on through the screen, just as though it weren't there, and up into this pure crystal clear light, an illuminating white light. It was beautiful and so bright, so radiant, but it didn't hurt my eyes. It's not any kind of light you can describe on earth. I didn't actually see a person in this light, and yet it has a special identity, it definitely does. It is a light of perfect understanding and perfect love.... And all during this time, I felt as though I was surrounded by an overwhelming love and compassion.⁷¹

This experience of overwhelming love by those who encountered the "being of light" may legitimately provoke the intuition that this being's intention is not only *transitory* benevolence, but to give unconditional and *eternal* love -- which corresponds to the fulfillment of our greatest desire.

Furthermore, the reports about the loving being of light, the presence of Jesus, the love and joy of the deceased, and the presence of a paradise closely parallel the revelation and resurrection of Jesus Christ, and this revelation does indicate the intention of an unconditionally loving God to bestow an *eternal* life of love upon all who are willing to accept and abide by that love.

Moving from the domain of empirically verifiable data to the domain of Christian revelation might seem to be stretching too far, but the close parallels between both approaches to life after death may reveal a justifiable complementarity worth investigating. The empirical investigation of transphysical survival (from near death experiences) corroborates and complements the historical investigation of Jesus' resurrection and revelation, ⁷² and vice-versa. Each approach has its own distinct methodology and source of evidence, but they find a confluence in three areas.

First, we will continue to possess some elements of our embodiment after physical death (e.g., vision, hearing, extendedness, and a recognizable bodily form). The transphysical features enable the deceased to transcend physical laws and structures (e.g. to pass through walls, to go upward, to move to a transphysical domain, etc.). Though there are some similarities between the descriptions of post mortem embodiment (reported in near death experiences) and Jesus' glorified body (reported by St. Paul and the Gospels), Jesus' glorified body goes far beyond human post mortem embodiment—it is transformed and glorious—almost god-like (see Volume 3, Chapter Five). The ethereal embodiment in near death experiences is more "ghost-like" and not really glorious or divine. According to Christian revelation, our bodies will be like that of Jesus (transformed in glory) when we reach the fullness of our salvation in the heavenly kingdom (I Cor 15:49).

⁷¹ Moody, 1975, pp. 53-54.

⁷² See the studies of N.T. Wright 2003, Gary Habermas 2006, and Robert Stewart 2006, which use the latest historical-critical method for approaching the validity of accounts of Jesus' resurrection (presented in Volume 3, Chapter Five).

Second, the essence of eternal life is love (both the capacity to love and to receive the love of others). This is the central part of Jesus' revelation and is manifest in near death experiences by the loving white light (associated with God), the love of Jesus, and the love and joy of deceased relatives.

Third, there is a dimension of beauty, joy, and paradise in many accounts of near death experiences as well as Christian revelation (see Volume 5, Chapter Seven). When we put the two sources of evidence together, they complement each other. Near death experiences give *directly corroborateable evidence* of a transphysical life that the resurrection appearances cannot give (since they are historically remote). Alternatively, the resurrection and revelation of Jesus show that this transphysical life is *eternal*, *glorious*, and destined for *unconditional* love and joy. When this is combined with the seven dimensions of our transcendent nature (discussed in Chapters One through Five), they converge upon a single conclusion – that we are created by an unconditionally loving deity who calls us to an eternal life of unconditional love through an invitation embedded in our psyches. In view of this convergence, we will want to look more closely at the revelation of Jesus – not only about the unconditional love of God, but about our eternal destiny and the path to reach it (See Volumes 3&4).

VI.

Complementary Evidence of a Soul from Terminal Lucidity – Back to top

There is some remarkable complementary evidence of a transphysical soul that has recently come to light through several scientific investigations of phenomenon called "terminal lucidity." Patients with severe neurologic disorders (such as advanced Alzheimers, advanced dementia, severe neurological damage from strokes, and even from hydrocephalus) having almost no cognitional capacity attributable to brain function, suddenly awaken to consciousness and significant cognitional activity prior to death. There are two types of terminal lucidity:

- 1. Gradual TL (coming about one week before death); and
- 2. Rapid TL (coming hours before death).

In several cases reported by Bruce Greyson, Michael Nahm, ⁷³ Emily Kelly, Erlendur Haraldsson, ⁷⁴ Jesse Bering, ⁷⁵ and Batthyany several individuals with documented atrophying of or damage to the brain, rendering them incapable of cognitional activity through brain function alone, regained their capacity for memory, practical and theoretical intellectual functioning, and affective depth prior to death.

⁷³ See Michael Nahm, Bruce Greyson, 2014 "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity" *Omega* 68 (1): 77-87. http://journals.sagepub.com/doi/10.2190/OM.68.1.e. See also Michael Nahm and Bruce Greyson (2009)., Terminal lucidity in patients with chronic schizophrenia and dementia: A Survey of the Literature. *Journal of Nervous and Mental Disease*, 197, 942-944. See also Michael Nahm (2009). Terminal lucidity in people with mental illness and other mental disability: An overview and implications for possible explanatory models. *Journal of Near-Death Studies*, 28, 87-106. See also Michael Nahm (2011). Reflections on the context of near-death experiences. *Journal of Scientific Exploration*, 25, 453-478.

⁷⁴ See Michael Nahm, Bruce Greyson, Emily Williams Kelly, and Erlendur Haraldsson 2012 "Terminal lucidity: A review and a case collection" in *Archives of Gerontology and Geriatrics*. 55 (1): 138-42. http://www.sciencedirect.com/science/article/pii/S0167494311001865?via%3Dihub.

⁷⁵ See Jesse Bering 2017, "One Last Goodbye: The Strange Case of Terminal Lucidity" in *Scientific American Blog Network*.

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For example, in one case documented by Michael Nahm, a 91-year old woman with severe atrophying of the cerebral cortex due to advanced Alzheimer's disease (who was unresponsive and showed no signs of recognizing her daughter for five years) suddenly awoke and began a conversation with her daughter speaking about her fear of death, difficulties she had with the church, and her family members. She died shortly thereafter. There appears to be no physical explanation for how she could have accomplished this, because her brain was incapable of this kind of cognitional functioning.⁷⁶

Harvard researcher, Rudolph Tanzi, describes the phenomenon as follows:

The events of terminal lucidity even in Alzheimer patients who were barely conscious, who were barely responsive, well, we hear them all the time. How suddenly a patient can, just before death, say their goodbyes to their loved ones, remembering their names, maybe recalling an event after a decade or so of not learning, of having lost first their short term memory and then their long term memory. It is a complete mystery. [...] But it is undeniable that it happens, and it is amazing.⁷⁷

One of the more remarkable cases of terminal lucidity concerns Anna Katharina Ehmer, a 26-year old woman with severe mental disabilities who lived in an institution. Her case was reported by two very reputable physicians in charge of the institution – Dr. Friedrich Happich and Dr. Wilhelm Wittneben. She was one of the most severely mentally challenged people who had lived in their institution. *She had never learned to speak a word during her lifetime*. She seemed capable only of eating, sleeping, uttering animal sounds, fidgeting, and fouling herself. She had suffered from tuberculosis and multiple bouts of meningitis that had destroyed much of the brain tissue required for ordinary thought processes. In the words of Dr. Wittneben:

From a medical perspective, I am confronted with a mystery. Käthe has suffered so many severe infections of meningitis, that due to the anatomical changes in the cortical brain tissue, it is not comprehensible how the dying woman could suddenly sing so clearly and intelligibly (Stritter, 1930, pp. 176ff).⁷⁹

As implied by Dr. Wittneben, prior to her death, Kathe suddenly gained considerable lucidity and even sang a series of songs that had complexity and deep spiritual meaning. In the words of Dr. Happich:

When we [Dr. Happich and Dr. Wittneben] entered the room together, we did not believe our eyes and ears. Käthe, who had never spoken a single word, being entirely mentally disabled from birth on, sang dying songs to herself. Specifically, she sang over and over again "Where does the soul find its home, its peace? Peace, peace, heavenly peace!" For half an hour she sang. Her face, up to then so stultified, was transfigured and spiritualized. Then, she quietly passed away. Like myself and the nurse who had cared for her, the physician had tears in his eyes. (Ringger, 1958, p. 220)⁸⁰

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⁷⁶ See Michael Nahm, Bruce Greyson, E. W. Kelly, and E. Haraldsson, E. (2012). Terminal lucidity: A review and a case collection. *Archives of Gerontology and Geriatrics*, *55*, 138-142.

⁷⁷ Rudolph Tanzi 2012 cited by Michael Nahm in "Exploring Frontiers of Biology" http://www.michaelnahm.com/terminal-lucidity.

⁷⁸ Michael Nahm and Bruce Greyson 2013-2014 "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity," University of Virginia Medical School website: https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/267/2015/11/NDE72terminal-lucidity-Omega.pdf

⁷⁹ Michael Nahm and Bruce Greyson 2013-2014 in "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity. https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/267/2015/11/NDE72terminal-lucidity-Omega.pdf

⁸⁰ Ibid

Kathe's case is but one among a multitude of cases that have been recorded throughout the last hundred years. They all have similar features—namely that people with severely damaged brain tissue needed for cognitive processes suddenly come to a heightened sense of consciousness, focus, deliberation, and affective death between one week to one hour before death. The University of Virginia Medical School is compiling and studying these cases⁸¹ along with independent efforts by doctors Nahm, Greyson, Kelly, and Heraldsson⁸² to shed greater light on the phenomenon. At present, there is no known physical or biological explanation for this phenomenon, leading several physicians and scientists to conclude the strong likelihood of a transphysical source of consciousness and cognition – what we have termed, "a soul."

There is a third quasi-empirical indication of a transphysical basis of consciousness and cognition that correlates with terminal lucidity—the clear manifestation of high verbal and mathematical IQ in severely hydrocephalic adults. Hydrocephalus is a condition in which spinal fluid replaces brain tissue in the vital parts of the brain needed for cognitional function. Severe cases might have as much as 95% of the brain cavity filled with spinal fluid, meaning that the patient effectively has only 5% of his brain tissue. By any ordinary understanding of brain physiology and functioning, such individuals should not be able to think and should be effectively reduced to a vegetative state. However the Lorber studies (involving 600 hydrocephalic patients) found that 30 of these patients (5%) actually registered a significant IQ, and some of them registered a genius level IQ. Michael Nahm's summary of Lorber's findings noted the following:

After performing more than 600 scans on hydrocephalic patients, Lorber put forward the provocative question, "Is your brain really necessary?" (Lewin, 1980; Lorber, 1983). He found that about 30 individuals had a global IQ greater than 100 – despite cerebrospinal fluid instead of brain tissue filling 95% or more of their crania. Lorber loved citing the story of a student of mathematics whose global IQ was 126, his verbal IQ even reaching 143. In his case, "instead of the normal 4.5 centimeter thickness of brain tissue between the ventricles and the cortical surface, there was just a thin layer of mantle measuring a millimeter or so. ... The boy has virtually no brain" (Lorber in Lewin, 1980, p.1232). 83

As Lorber, Nahm, Lewin, and others imply, there is no physiological explanation for how these hydrocephalic patients could have any cognitional function, let alone an IQ at a genius level. Michael Nahm examines several hypotheses that have been advanced to enable the 1% to 5% brain tissue to function like an ordinary cerebral and frontal cortex, but such explanations are highly dubious. ⁸⁴ When we combine the evidence of terminal lucidity with the high level cognitional functioning of 5% of hydrocephalic patients, we are provoked to ask the questions posed by Lorber and Lewin in the 1980's—"Is your brain really necessary?" If we treat the evidence seriously, without giving probative value to highly dubious physicalist

⁸² See Michael Nahm, Bruce Greyson, Emily Williams Kelly, and Erlendur Haraldsson 2012 "Terminal lucidity: A review and a case collection" in *Archives of Gerontology and Geriatrics*. 55 (1): 138-42. http://www.sciencedirect.com/science/article/pii/S0167494311001865?via%3Dihub.

⁸¹ See the University of Virginia Medical Center website on terminal lucidity. https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/360/2016/12/OTH25terminal-lucidity-AGG.pdf.

⁸³ Michael Nahm 2009 "Terminal Lucidity in People with Mental Illness and Other Mental Disability: An Overview and Implications for Possible Explanatory Models" in *Journal of Near-Death Studies* (Winter 2009) www.spiritualscientific.com/yahoo site admin/assets/docs/Lucidity at Death Nahm M.9131800.pdf.

See also John Lorber 1983 Is your brain really necessary? In D. Voth (Ed.), *Hydrocephalus in fru hen Kindesalter: Fortschritte der Grundlagenforschung, Diagnostik und Therapie* (pp. 2–14). Stuttgart, Germany: Enke Verlag. See also R. Lewin 1980 "Is your brain really necessary?" *Science*, 210, 1232–1234.

For a recent noteworthy hydrocephalus case, see Feuillet, Dufour, & Pelletier, 2007 "Brain of a white-collar worker" *Lancet*, 370, 262.

Michael Nahm 2009 "Terminal Lucidity in People with Mental Illness and Other Mental Disability: An Overview and Implications for Possible Explanatory Models" in *Journal of Near-Death Studies* (Winter 2009) www.spiritualscientific.com/yahoo site admin/assets/docs/Lucidity at Death Nahm M.9131800.pdf.

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explanations, we are left with a curious response to their question—it seems that the brain really isn't necessary for cognitional functioning, implying that there is in fact a transphysical source of consciousness and cognition—a conclusion we reasonably and responsibly derived from the evidence of near-death experiences (in Sections I-V).

So what is the function of the brain? The brain processes sensorial data, has memories associated with this data, and creates perceptual ideas. ⁸⁵ The brain also governs a wide range of instinctual and biological emotions, desires, and involuntary responses for organ and muscle control. The brain also acts as a mediator between higher level functions of consciousness (e.g., self-awareness, the five transcendental desires, conceptual ideas, the grasp of mathematical intelligibility, etc.) which may well be the exclusive domain of a transphysical soul—and lower level cognitional activities (sensorial processing, biological instincts and desires, perceptual ideas, and perceptual memories) which are proper to the brain itself.

If this is correct, then a malfunctioning brain could interfere with the processing of sensorial data to our transphysical consciousness, and likewise could interfere with the transmission of willed responses from our consciousness back to our nervous, muscular, and autonomic systems. This may well explain why Alzheimer's patients with severely atrophied brains can perform higher level cognitional functions during the time of terminal lucidity, but *not prior* to the time that the transphysical soul of consciousness is in the process of leaving the body. This explanation goes beyond the scope of our investigation, but it has been a subject of study by the Nobel Prize winning physiologist, Sir John Eccles. ⁸⁶ In his volume *Evolution of the Brain: Creation of the Self*, Eccles brilliantly elaborates the distinction between the physical brain and a transphysical mind-self-person through the lens of both physiology and evolutionary biology. In so doing, he provides an excellent foundation for understanding the question of explaining how patients with severely damaged brains can perform higher conscious and cognitional functions.

In conclusion, the medical studies of terminal lucidity and high performing hydrocephalic patients complement those of near death experiences, providing yet another empirical validation of the probable reality of a transcendent or spiritual soul capable of existing independently of the physical body—and therefore capable of surviving its death.

There is yet another important consequence of the data coming from the study of terminal lucidity—namely the existence of a rich inner world within even the most mentally challenged individuals (such as Anna Katharina Ehmer). Citing again the insights of Dr. Happich, we can get a sense of the inherent dignity and transcendent nature of these individuals from which we can infer norms for their ethical treatment:

For me, the most mentally deranged idiot⁸⁷ is not inferior to normal persons in the deepest sense. I have lived through various virtually shattering experiences, some of which I have experienced together with the chief physician of our institution, Dr. Wittneben. These experiences have shown me that even the most miserable imbecile⁸⁸

⁸⁵ Perceptual ideas are those derived from individuated sensorial data and should be distinguished from conceptual ideas which arise out of the relationship among data according to certain high-level abstractions—such as, "what?" "where?" "when?" "why?" "how?" and "how many?" Animals have multiple perceptual ideas, but they do not have any conceptual ideas which is why even highly trained primates (such as Nim Chimpsky) cannot pass Noam Chompsky's syntactical test (the ability, for example, to distinguish between "dog bites man" and "man bites dog"). For a complete explanation of this, see Spitzer 2016 *The Soul's Upward Yearning* pp.133-139.

⁸⁶ Sir John C. Eccles 1991 *Evolution of the Brain: Creation of the Self* (New York: Routledge) pp.172-239

⁸⁷ The terms "mentally deranged idiot" are not meant as an insult, but rather are technical terms used prior to 1960 to refer to people with an IQ between 0-25. Furthermore, "mentally deranged" did not have a pejorative meaning, but rather refers precisely to what we call "mentally challenged" today. Evidently, Dr. Happich had the utmost respect for these individuals, regarding their inner life to be tantamount to his own.

⁸⁸ The expression "miserable imbecile" is not mean to be an insult. Prior to 1960, the term, "imbecile" had a technical meaning – namely, a person with an IQ between 26-50. The term, "miserable" did not have a pejorative meaning, but rather a compassionate one – meaning, "an unfortunate person" – someone deserving compassion because of their

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leads a hidden inner life which is just as valuable as my own inner life. It is only the destructed surface that hinders him to show it to the outside. Often in the last hours before death, all pathological obstructions fell away and revealed an inner life of such beauty, that we could only stand in front of it, feeling shaken to the core. For somebody who has witnessed such events, the entire question of legally controlled euthanasia is completely finished. (Trost, 1983, pp 9-10)⁸⁹

In the next topic, we will be discussing the five transcendental desires which will provide additional evidence of our transcendent soul—and even God's presence to it. This evidence also reveals the inherent dignity and rich inner world of severely mentally challenged people, and when we combine it with the evidence of terminal lucidity, we can see almost unmistakably the ethical consequences so well stated by Dr. Happich: "For somebody who has witnessed such events, the entire question of legally controlled euthanasia is completely finished." We will discuss this in detail below (Second Topic, Section IV).

Chapter Two Evidence of the Soul from our Transcendental Desires

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There are five Transcendental Desires that were recognized around 400 BC by Plato, Plotinus, and other neo-Platonists. St. Augustine, St. Thomas Aquinas, and many other philosophers have spoken of these same desires through the centuries. Let's look at how these transcendental desires indicate the presence of God to your consciousness.

I. The Basic Argument from Plato to Lonergan

What are these transcendental desires? They are our built-in desires for:

- i. Perfect and unconditional **Truth**
- ii. Perfect and unconditional Love
- iii. Perfect and unconditional Justice (Goodness)
- iv. Perfect and unconditional **Beauty**
- v. Perfect and unconditional **Being** (**Home**)

Here is the **basic argument of Plato**, which has influenced generations of philosophers:

1. One of the most basic experiences we have is the experience of imperfections in the world around us. We seem to be **instinctively aware of imperfections** in our understanding of things (truth), imperfections in the love of others and even ourselves, imperfections in the

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difficult state of life – as in the title of Victor Hugo's book, "Les Miserables." Therefore, the expression means "an unfortunate person who is challenged by a relatively low IQ."

⁸⁹ Michael Nahm and Bruce Greyson 2013-2014 in "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity. https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/267/2015/11/NDE72terminal-lucidity-Omega.pdf

⁹⁰ Ibid

- justice or goodness of others and ourselves, imperfections in the beauty of the world around us, and imperfections in our sense of "being at home in the world." Indeed, we seem to recognize *every* imperfection in these five areas instinctively and endlessly.
- 2. How could we recognize these imperfections unless we have an awareness of what perfection in these five areas would be like?
- 3. As we shall see below, the source of our awareness of these five kinds of perfection would have to be the five kinds of perfection themselves and these five kinds of perfection perfect **truth**, **love**, **justice/goodness**, **beauty and home/being** turn out to be the one perfect God.

It looks like we have a lot of explaining to do.

Four Step Argument From Transcendental Desire to a Soul

- 1. We have five desires for the perfect and unconditional - the desire for perfect and unconditional truth, love, justice/goodness, beauty and being.
- 2. We must have an awareness of what we desire; therefore, we must have an awareness of perfect truth, love, justice/goodness, beauty and being.
- 3. We have the capacity to recognize every imperfection in our experience of truth, love, justice/goodness, beauty and being which would not be possible unless we were aware of *perfection* in them.
- 4. The source of our awareness of perfect truth, love, justice/goodness, beauty and being must be *perfect* truth, love, justice/kindness, beauty and being themselves.

Conclusion: If God is perfect truth, love, justice, beauty and being, then God is present to us when we are aware of imperfection in any of these "transcendentals" and we are, therefore, transcendent.

II. The Five Transcendental Desires—Considered Individually – Back to top

We will now examine the evidence for each transcendental desire beginning with the desire for perfect truth, and then proceeding to perfect love, perfect justice-goodness, perfect beauty, and perfect being/home.

II. A Perfect Truth

Let's start with the desire for **perfect truth**. We can explore this in four steps:

- 1. We have a very interesting ability. Every time we give an answer to a question, we have the ability to know whether that particular answer is the knowledge of "everything about everything." As you may have discovered by now, you always seem to think that your answers are not the "knowledge of everything about everything" that your knowledge is **imperfect.** And so you ask another question. We not only have a desire to know everything about everything, we have the capacity to know whether we have reached that goal at any point in our inquiry, and if we have not reached it which at least for me has not yet occurred we keep asking questions. We won't be satisfied until we have finally gotten to our goal the whole truth knowledge of everything. By the way, if you did not know that your answer was not "everything about everything," you would not ask another question you would simply marvel blankly at the answer you have already gotten. But the fact is, we relentlessly ask questions because we are aware that our knowledge is imperfect and incomplete.
- 2. Now here is the crucial question. **How can we always know that our knowledge is imperfect** and that we have not yet reached the goal of perfect knowledge unless we had some idea of what **perfect knowledge** would be like? Think about it if you had absolutely no awareness of what perfect knowledge would be like, you would not recognize any imperfection in your current knowledge and so you would have no desire to ask a question indeed you would not even be aware that there was a question to be asked. In a sense then, without this awareness of what perfect knowledge would be like, we would be unintelligent and uncreative because we would ask no questions. That would be too bad because Aristotle said asking questions is the beginning of all knowledge and creativity.

Note: So what is this awareness of perfect knowledge? Well, it can't be the **knowledge** of perfect knowledge, because if you knew that, you wouldn't have any further questions – you would have perfect knowledge. So philosophers have talked about this as a **tacit** or notional awareness of what perfect knowledge would be like. It is something we can **sense** as a goal of our inquiry, but we have not yet brought it into focus – so that we explicitly know it. Many philosophers, such as Karl Rahner, call it a horizon – we are aware of a horizon of perfect knowledge, but like any horizon, it is beyond our reach -- we have not yet reached its full extent.

3. What could possibly be the source of our tacit awareness of "everything about everything?" Well, as you can imagine, it cannot be anything in this world – because all of the objects of our experience and all the ideas that we have are imperfect – inciting us to ask further questions. So we clearly did not get our tacit awareness of everything about everything from either our experience of the outside world or the ideas we already grasp. So where did we get it from? Philosopher's from Plato, Aristotle, and Aquinas, to Rahner, Lonergan, and Coreth all say it must come from perfect knowledge itself – "perfect truth itself" – "the complete set of correct answers to the complete set of questions." No other

reality can produce the idea of perfect knowledge except the idea of perfect knowledge itself.

4. So what is the idea of perfect knowledge itself? As you might suspect, it is God. This proof was given in the previous volume (Volume 1 — Chapter Three — The Five Transcendental Attributes of God). Recall that this God must be an unrestricted act of thinking (shown in both the contemporary Thomistic metaphysical proof and the Lonerganian proof).

If the above reasoning is correct, then God is present to your consciousness – and not only that – his presence to you as "the idea of perfect knowledge" gives you a horizon of perfect knowledge, enabling you to ask questions ceaselessly and to create new ideas continuously in the wake of that questioning. God not only exists – he incites our continuous questioning and creativity.

II.B Perfect Love

If that didn't thoroughly exhaust you, then let's go to our desire for **perfect love**. You will notice that this argument follows the same lines as the argument from our desire for perfect truth. We will give this argument in an abbreviated way in four steps, but you will be able to see the point.

- 1. We have the ability to notice imperfection in love in both others and ourselves in virtually every conceivable context. Amazingly enough, very small children can notice imperfection or inauthenticity in the love of parents, teachers, brothers and sisters, and friends almost as well as adults.
- 2. How can we notice virtually every **imperfection** in the love of others and ourselves continuously and endlessly, if we did not have some idea of what **perfect love** would be like? Stated the other way around, if we had no sense of the perfect ideal of love (what perfect love would be like), we would never notice any imperfection in love we would be satisfied with any manifestation of affection much like my wonderful dog -- who is not perturbed by my inauthenticity, distraction, desire to do something else, etc.
- 3. Once again we must ask what could be the source of our awareness of what perfect love would be like. The source of this awareness cannot be any kind of love that we have experienced in the outside world. Let's face it it is precisely this love that causes us to recognize imperfection in it. This has led many philosophers to believe that the only possible source of our awareness of what perfect love would be like is perfect love itself.
- 4. What is perfect love? As you might suspect, it is the one God we proved in the previous volume. (Volume 1 Chapter Three The Five Transcendental Attributes of God).

If we assume that the source of our awareness of perfect love is the one God (proved in the metaphysical proof), then we move to a two-fold conclusion – first, God is perfect love, and secondly, the perfectly loving God is present to our consciousness. Furthermore, when that perfectly loving God is present to us, we have a tacit awareness of what perfect love would be like, and this in turn, enables us to see imperfection in our love and the love of others – helping us to grow to evermore perfect kinds of love.

II.C Perfect Justice/Goodness

As you might suspect, the argument concerning our desire for perfect justice/goodness, follows the very same lines as the one above for perfect love. It too can be set out in four steps.

- 1. We have the ability to notice imperfection in justice (goodness) in both others and ourselves in virtually every conceivable context. We not only notice unfairness (and evil) in individual people, but also in virtually every organization and institution. We can see unfairness in economic systems, judicial systems, educational systems, cultural institutions, and so forth. Our capacity to recognize imperfection in justice (goodness) seems to know no limits resembling our capacity to recognize imperfection in knowledge and love. Again, little children have the ability to recognize unfairness in parents and teachers even though their parents and teachers did not teach them how to do so.
- 2. How can we notice virtually every **imperfection** in the justice (goodness) of others, ourselves, organizations, institutions, systems, and society -- endlessly, if we do not have some idea of what **perfect justice** (**goodness**) would be like? Stated the other way around, if we had no sense of the perfect ideal of justice (goodness), we would never notice any imperfection in justice (goodness) we would simply count "survival of the fittest" as our lot in life.
- 3. Once again we must ask what could be the source of our awareness of what perfect justice (goodness) would be like. The source of this awareness cannot be any kind of justice (goodness) that we have experienced in the outside world. Again, it is precisely this justice (goodness) that causes us to recognize imperfection in it. This has led many philosophers to believe that the only possible source of our awareness of what perfect justice (goodness) would be like is perfect justice (goodness) itself.
- 4. What is perfect justice (goodness)? As you might suspect, it is the one God we proved in the previous volume (Volume 1 Chapter Three).

What can we conclude from this? If the above reasoning is correct, then God is not only perfect intelligence and perfect love, he is also perfect justice (goodness). Furthermore, he is present to our consciousness as perfect justice (goodness), creating a horizon of perfect justice (goodness),

which incites us to strive for ever greater forms of justice and goodness in ourselves, others, organizations, institutions, laws, ideals, government, culture, and every other aspect of human endeavor.

II.D Perfect Beauty

The very same line of reasoning applies to perfect beauty as to perfect truth, love, and justice (goodness). At this juncture, it will only be necessary to present the first step of the argument, and you can figure out the other three steps from the line of reasoning given above.

- 1. We have the capacity to recognize imperfection in every dimension of every kind of beauty artistic beauty, musical beauty, architectural beauty, literary beauty and even beauty manifest in the human heart, human ideals, and human aspirations. Even when we are immersed in the most beautiful of nature walks or along a beautiful seascape, we always seem to strive for another angle something more interesting more beautiful. We try to enhance beauty in music by making it more complex and sometimes by simply "turning up the volume." We see endless imperfections in the beauty of ourselves and others, and strive to overcome those imperfections.
- 2. How can we notice virtually every imperfection in all of the above forms of beauty continuously and endlessly? You should be able to answer this question without even being a Platonist philosopher.
- 3. What could be the source of our tacit awareness of what perfect beauty would be like? Again, you should be able to answer this question.
- 4. What is perfect beauty? Once again, it is the same God we proved in the previous volume (Volume 1 Chapter Three).

Now you draw the conclusion – what does this say about who God is and how he is present to our consciousness?

II.E The Desire for Perfect Being/Home

Human beings also seek a perfect sense of harmony with all that is. They not only want to be at home in a particular environment, they want to be at home with the totality, at home in the cosmos. Have you ever felt, either as a child or an adult, a sense of alienation or discord – a deep sense of not belonging? You ask yourself, "What could be the source?" and you look around and see that at this particular time you have a good relationship with your friends and your family. Your work relationships seem to be going fairly well, community involvements have produced some interesting friends and contexts in which to work. Yet, something's missing. You don't quite feel at home in a *general* sense. Yet you do feel at home with family, friends, organization, etc. You feel like you are out of kilter with, and don't belong to, the *totality*. And yet, all the

specific contexts you look at seem just fine. You feel an emptiness, a lack of peace, yet there is absolutely nothing you can put your finger on.

Many philosophers and theologians connect this feeling with a human being's yearning to be at home with the totality; not merely to be in harmony with the totality, but to be perfectly at home (without any hint of alienation).

This desire for home with the totality also has both a positive side and a negative side. The positive side is that it presents a call to seek ever greater and deeper forms of harmony (peace within the world). It induces us to remove any form of alienation from our lives, the lives of others, and from our relationships with one another.

The negative side is the confusion and discontent that it brings. I may say to myself, "I do not understand why I feel this lack of peace, this emptiness, this sense of not belonging," and so I may tend to feel animosity towards individuals who can do nothing for me when I'm feeling it. One may look at one's wife and think, "Although I feel at home with her, she can do nothing for this peculiar sense of emptiness." Her helplessness induces frustration, and she is baffled by this seemingly inexplicable frustration. Again, I realize that my best friend, who seems to bring comfort in so many human situations, cannot help me to belong, to fit in, to feel at home in this *universal* sense. And so I display my frustration and restlessness at his powerlessness. Relationships have a way of taking a downward turn in these circumstances because we are trying to extract from them what they cannot give. The only way out, seemingly, is to find perfect home and harmony with *all that is*.

What gives rise to this "sense" of perfect home within the totality? It would seem to be linked to perfect Home, perfect Peace, or perfect Harmony *itself*; for our perception of incompleteness in every concrete manifestation of home reveals that we anticipate more home than any concrete manifestation can deliver; and this, in turn, reveals that we have a notional awareness of perfect home that would not seem to be derivable or abstractable from any concrete experience of home. Thus, the origin of this notional awareness would seem to be traceable to "perfect Home" itself. For this reason, philosophers and theologians have associated it with the presence of God to human consciousness.

When the desire for perfect home is even partially fulfilled, philosophers, theologians, and mystics variously refer to it as *joy–love–awe–unity–holiness–quiet*.

C.S. Lewis tried to describe the transcendent **joy** connected with perfect Home in his book *Surprised by Joy*. He compares it to the kind of joy that takes one over and adds a new intensity, awareness, and significance to life. He calls it a "stab of joy" which includes elements of awe and desire:

It is difficult to find words strong enough for the sensation which came over me; Milton's 'enormous bliss' of Eden (giving the full, ancient meaning to 'enormous') comes somewhere near it. It was a sensation, of course, of desire; but desire for what? Not, certainly, for a biscuit tin filled with moss, nor even (though that came into it) for my own past. *Ioulianpotho* [Oh, I desire too much.] – and before I

knew what I desired, the desire itself was gone, the whole glimpse withdrawn, the world turned commonplace again, or only stirred by a longing for the longing that had just ceased.⁹¹

Saint Teresa of Avila (the sixteenth century mystic who founded the discalced Carmelites) wrote extensively about the spiritual and mystical life – particularly about the **love**-joy-ecstasy toward which she was drawn. Unlike C.S. Lewis who wrote about being "surprised by joy" (i.e., being invited by God more deeply into the divine home), Saint Teresa speaks about the experience she frequently had in prayer in the Carmelite monastery. She speaks of an intrinsic connection between divine love and joy:

The *loving* exchange that takes place between the soul and God is so sweet that I beg Him in His goodness to give a taste of this love to anyone who thinks I am lying. On the days this lasted I went about as though stupefied. I desired neither to see nor to speak.... [I]t seems the Lord carries the soul away and places it in *ecstasy*; thus there is no room for pain or suffering, because *joy* soon enters in.⁹²

In his classic work, *The Idea of the Holy*, Rudolf Otto describes one kind of **awe** in his notion of the "numinous experience":

The feeling of [mysterium tremendum] may at times come sweeping like a gentle tide, pervading the mind with a tranquil mood of deepest worship. It may pass over into a more set and lasting attitude of the soul, continuing, as it were, thrillingly vibrant and resonant, until at last it dies away and the soul resumes its 'profane', non-religious mood of everyday experience. It may burst in sudden eruption up from the depths of the soul.... It may become the hushed, trembling, and speechless humility of the creature in the presence of – whom or what? In the presence of that which is a mystery inexpressible and above all creatures.⁹³

Evelyn Underhill, one of the foremost authorities on mysticism spoke of "**unity** with the totality" (or "unity with all creation") as central to the mystical experience:

...and seeing with purged sight all things and creatures as they are in that transcendent order, [the self] detects in them too that striving of Creation to return to its centre which is the secret of the Universe. ¶ A harmony is thus set up between the mystic and Life in all its forms. Undistracted by appearance, he sees, feels, and knows it in one piercing act of loving comprehension. 94

Underhill was a mystic herself (in the Christian tradition), and wrote the following fragment in her spiritual diary (*Green Book*):

⁹¹ Lewis 1955, pp. 16-18.

⁹² Teresa of Avila 1976, p. 194.

⁹³ Otto 1958, pp. 12-13.

⁹⁴ Underhill 1930, p. 258.

Today my God and Joy I felt and knew Thee, Eternal, Unchanging, transfusing all things, and most wholly and perfectly given to us in Christ-mir in-dwelling with Him a Total Surrender to Thee Thyself in all, the one medium of our union-at Communion to find and love Thee in each soul to which Thou has given Thyself. To know and find Thee, actually and substantially, in all nations and races and persons-this nourishes... 'Not grace alone, nor us alone, but Thy Grace in us.' To use and cultivate it. ... How far beyond anything one conceived the mysteries seem to stretch now. The more vivid the vision of Christ grows and the more insistent the demand for dedication, the more one can escape by this path from the maze of self-occupation. He draws and we run after. 95

Rudolf Otto describes the experience of **holiness** as an experience of complete otherness; yet it is not an experience of alienation from this holy otherness, but rather an invitation into it. The awareness causes a profound sense of being "creature" – and being at home with one's creatureliness before the holy Other who is our home:

[A person's encounter with the Numinous Reality produces] the feeling of absolute 'profaneness'.... And at the same moment he passes upon the numen a judgement of *appreciation* of a unique kind by the category diametrically contrary to 'the profane', the category 'holy', which is proper to the numen alone...⁹⁶

The final quality of divine home connects the experience of "union with God" to **quiet**. This quiet is not an empty silence, but rather a silence filled with love that stills every aspect of alienation in the human heart. Evelyn Underhill describes this experience as follows:

In 'Quiet' the eager will is silenced, the 'wheel of imagination' is stilled. In Contemplation, the heart at last comes to its own – *Cor ad cor loquitur*. In their simplest forms, these three states [in which there is an element of quiet – recollective, quiet, and contemplative] involve the deliberate concentration upon, the meek resting in, the joyous communing with, the ineffable Object of man's quest.⁹⁷

As the above quotations reveal, the experiences of joy-love-awe-unity-holiness-quiet dynamically interact through their divine source. Joy is not simply joy; it is God's joy, and God's joy is also God's love and majesty and unity and holiness and quiet. God's signature is contained in both His presence and the overlapping of the above experiences.

One might think that the experience of God would lead to fear of the immense, uncontrollable Creator-Other; but in fact the experience of the divine seems to be quite different. Despite the immensity and uncontrollable otherness of God, there seems to be a joy, love, and quieting of the human heart so profound that it transforms what might have been an alienating otherness into a sense of perfect Home. Throughout the experience, there appears to be a sense of invitation – an invitation to go more deeply into the Holy Other – an invitation to come Home.

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⁹⁵ Underhill 1993, pp. 39-40.

⁹⁶ Otto 1958, p. 51.

⁹⁷ Underhill 1930, pp. 310-11.

When the experience is completed, one is left, as C.S. Lewis says, with a longing; or perhaps better, "a longing for the longing."

Thus, God seems to be present to human consciousness not only as the "Idea of complete intelligibility," not only as the "ideal of perfect Empathy/love," not only as the "ideal of perfect Justice/Goodness," not only as the "quality of perfect Beauty," but above all as the "invitation to perfect Home."

We will encounter this ideal of perfect home several additional times throughout this *Compendium* – in the call of God in the numinous experience and the intuition of the Sacred (see below Chapter Three), in the cosmic emptiness, alienation, and loneliness we feel when we ignore this interior invitation from this numinous Divine Being (Volume 13, Chapter Five), in the external call of the Divine through beauty, wisdom, and home (Volume 13, Chapter Five), and in contemplative prayer and Christian mysticism (Volume 20, Chapter One). As can be seen, it is one of the most fundamental, emancipating, and transcendental dimensions of our being – and contains many of the clues to God and our eternal future.

III. Conclusion – Back to top

If the above reasoning is correct, then God is not only the unique unrestricted uncaused reality who is the cause of everything else; he is also perfect intelligence, perfect love, perfect justice (goodness), and perfect beauty. Furthermore, he is present to our consciousness as the source of our awareness of perfect truth, love, justice (goodness), and perfect beauty – and as such, he incites us to creativity in every form of human endeavor – in the striving for greater truth, love, justice (goodness), and beauty. God not only gives us a transcendent soul (manifest in the evidence of near death experience), He also fills our soul with the horizon of his perfection, which causes us to be everything that we are – an image of himself.

IV.

The Presence of the Transcendental Desires in Mentally Challenged Individuals Back to top

In the previous topic (Section VI), we discussed the rich inner life of individuals with severely damaged brains (from Alzheimer's disease, dementia, meningitis, hydrocephalus, etc.). This inner world became apparent toward the very end of their lives (between one week to one hour before death) in a phenomenon called "terminal lucidity." Studies of this phenomenon moved Dr. Friedrich Happich to write:

These experiences have shown me that even the most miserable imbecile leads a hidden inner life which is just as valuable as my own inner life. It is only the destructed surface that hinders him to show it to the outside. Often in the last hours before death, all pathological obstructions fell away and revealed an inner life of such beauty, that we could only stand in front of it, feeling shaken to the core. For somebody who has witnessed such events, the entire question of legally

controlled euthanasia is completely finished.⁹⁸

There is yet another manifestation of the rich inner world of those with severely damaged brains—namely mentally challenged individuals' awareness of four out of the five transcendentals—awareness of the spiritual and transcendent, authentic love, good and evil, and beauty. There are several studies that confirm the awareness of these transcendental attributes in the mentally challenged. First, there can be little doubt that mentally challenged individuals have an awareness of God, the numinous, the spiritual, and the religious. This awareness is profound and is frequently the ground of personal identity and core value within them. ⁹⁹ Moreover, religion is quite important to Alzheimer's and dementia patients. As their disease becomes more profound, their ability to connect with hymns and prayers remains quite pronounced until the capacity for verbal production is all but eclipsed. Furthermore, there may be a correlation between religion-spirituality and the slowing of Alzheimer's and dementia progression. ¹⁰⁰

Secondly, there is considerable evidence that intellectually challenged individuals have a sense of right and wrong upon which to base a moral life. However, the lower the intellectual ability, the less likely these individuals will be to apply their awareness of right and wrong to "cause and effect" and other concepts that allow for a more nuanced personal and social ethics. ¹⁰¹

Thirdly, intellectually challenged individuals have a profound awareness not only of love, but the authenticity of love. Developmentally disabled individuals are capable of constructive friendships and social interaction; however because of bias and lack of patience on the part of non-disabled individuals, friendships among disabled individuals are more frequent and profound than friendships between disabled and non-disabled individuals. Exceptions can be found in communities like L'Arche (a Catholic-based program based on community homes with disabled and non-disabled individuals). ¹⁰²

Fourthly, developmentally disabled individuals have an awareness of beauty. They are able not only

⁹⁸ Michael Nahm and Bruce Greyson 2013-2014 "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity," University of Virginia Medical School website: https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/267/2015/11/NDE72terminal-lucidity-Omega.pdf

⁹⁹ The L'Arche communities started by Jean Vanier are grounded in religion and prayer which presumes the capacity of mentally challenged community members to appreciate and understand a relationship with a supreme spiritual Being. See the mission and history of L'Arche in the L'Arche USA website. https://www.larcheusa.org/who-we-are/charter/. There are several excellent studies of the spiritual life of mentally challenged individuals. See for example, G. Watts 2011 "Intellectual disability and spiritual development" *US National Library of Medicine National Institutes of Health* December 2011 https://www.ncbi.nlm.nih.gov/pubmed/21992689

See also William C. Gaventa and David Coulter 2001 Spirituality and Intellectual Disability: International Perspectives on the Effect of Culture and Religion on Healing Body, Mind, and Soul (The Haworth Pastoral Press).

¹⁰⁰ Miranda Hitti 2005 "Religion, Spirituality May Slow Alzheimer's" in Webmd.com www.webmd.com/alzheimers/news/20070101/religion-spirituality-slow-alzheimers#1

¹⁰¹ See Glen Thomas 1996 *Teaching Students with Mental Retardation: A Life Goal Curriculum Planning Approach* (New York: Merrill Publishing) pp.152ff.

See also Alfred Baumeister 2009 Ameliorating Mental Disability: Questioning Retardation (New York: Routledge).

¹⁰² See Colin Pottie; John Sumarah 2004 "Friendships Between Persons with and without Developmental Disabilities" in *Mental Retardation: A Journal of Practices, Policy and Perspectives*, vol. 42, pp55-66ff

to enjoy nature and art, but also to express themselves emotionally through art and natural symbols. 103

Finally, mentally challenged individuals also have an awareness of truth and falsity as well as truth versus lies. Though their grasp and memory of complex conceptual ideas is limited, they are still able to judge the difference between truth, falsity, and lies in simple factual contentions. Alzheimer's and dementia patients are also able to discriminate between truth and falsity, and to respond to simple questions with "yes" or "no." Though verbal production is significantly limited in such patients (which causes delays in their ability to verbally express "yes" or "no") they still have the capacity to make this differentiated judgement with respect to factual claims as well as preferences and desires. 104

In sum, severely developmentally disabled individuals can be aware of God, prayer, and God's presence to them—though their ability to nuance and articulate this awareness may be limited by their intellectual disability. Similarly, developmentally disabled individuals can be aware of good and evil as well as right and wrong; they can develop in their friendships and capacity for social interaction, and can also appreciate art; however, once again, their ability to nuance and articulate these kinds of transcendental awareness are limited by their diminished intellectual capacity. ¹⁰⁵

It may be thought that our intellectual-rational ability (manifest in conceptual, logical, and mathematical intelligence) *is* dependent on the brain, but, as we saw above (First Topic, Section VI), this view has been seriously challenged by recent studies of terminal lucidity, near-death experiences, and intelligence manifest in hydrocephalic patients. These studies show that higher intellectual functioning is very probably *not* dependent on the brain, but on an intellectual capacity arising out of a transphysical soul (capable of surviving bodily death).

What might we conclude from the evidence of terminal lucidity and the capacity of developmentally disabled persons to be aware of "God and religion," authentic love, "right and wrong," and art and beauty? When we combine these two kinds of evidence with our previous work on the five transcendental desires (showing that the cause of our awareness of perfect truth, love, justice-goodness, beauty, and home must be *transphysical*¹⁰⁶), we may reasonably conclude that the origin of the awareness of perfect truth, love, justice-goodness, beauty, and home is God working through our transphysical soul which is present in *every* human being whether or not they be developmentally disabled or intellectually challenged later in life. If the physical processes of our brain should experience hindrance or incapacity through physical degeneration or some other process, the soul's capacity to manifest itself within and through the body speech, understanding of audio cues, writing, and other bodily movements would likewise be hindered or incapacitated. Finally, prior to death, the soul seems to separate from the physical processes of higher brain functioning, and in some cases, works through the verbal processing and speech parts of the brain without making full use of the cerebral cortex. This can temporarily restore higher intellectual functioning.

What might we surmise from this? First, developmentally disabled individuals as well as those suffering from later manifestations of brain atrophying or injury are exactly as Dr. Happich noted in his study of Anna Katherina Ehmer (see First Topic, Section VI)--"These experiences have shown me that even the most miserable imbecile leads a hidden inner life which is just as valuable as my own inner life. It is only the destructed surface that hinders him to show it to the outside." ¹⁰⁷This hidden interior life reveals a

¹⁰⁶ See Spitzer 2015 The Soul's Upward Yearning Chapters 3&4.

¹⁰³ See Pamela Carter-Birken 2009 "Creative Connections—Art Museums Reach Out to Persons with Disabilities" *Social Work Today* Vol. 9, no. 4, p.16ff

¹⁰⁴ Tschanz JT¹, Corcoran CD, Schwartz S, Treiber K, Green RC, Norton MC, Mielke MM, Piercy K, Steinberg M, Rabins PV, Leoutsakos JM, Welsh-Bohmer KA, Breitner JC, Lyketsos CG.

¹⁰⁵ See the references in the previous 8 footnotes.

¹⁰⁷ Michael Nahm and Bruce Greyson 2013-2014 "The Death of Anna Katharina Ehmer: A Case Study in Terminal Lucidity," University of Virginia Medical School website: https://med.virginia.edu/perceptual-studies/wp-content/uploads/sites/267/2015/11/NDE72terminal-lucidity-Omega.pdf

transphysical soul capable of all the transcendental activities manifest in every human being. To judge that the capabilities are not present because the manifestation of them is limited by developmental problems or atrophying is a critical and empirical error. Secondly, in light of this, we must judge every human being to have *the same* intrinsic transcendental value, regardless of what the manifestation of their perceptual, conceptual, and transcendental powers are at any given time. As such, every human being—regardless of the manifestation of these powers—should be treated with the utmost respect and dignity for the soul and transcendental capacity they possess. To do anything less, would be a grave ethical error, and a violation of the most fundamental principal of ethics—the principle of non-maleficence (see Chapter 16).

Chapter Three God's Presence to Our Consciousness: The Numinous Experience, Intuition of the Sacred, and Conscience – Back to top

Introduction

The evidence for our interior awareness of a Transcendent Reality is primarily subjective - though it is not limited to our personal subjective experience alone. It can be correlated with the subjective experience of thousands of others in different cultures and religions to detect similarities and patterns, which show their virtually universal presence in both history and the contemporary age. Though this is not strictly speaking objective evidence (grounded in a similar extrinsic publically accessible data source), it is persuasive because of its multiple occurrences. This evidence, as William James notes, is not dissimilar from much of the evidence for neurosis, psychosis, and other mental disorders described in the annals of contemporary psychology. As we shall see, the evidence strongly indicates that human beings have religious experiences that have a common root. But does this common root indicate the presence of a Transcendent Other or only a manifestation of hyper imagination or hyper emotion arising out of merely natural causes? If one contends that the cause of the numinous is merely natural, then we will have to find *completely* naturalistic answers to the following questions: Why is 84% of the world religious? Why do most world religions share seven common beliefs amidst many differences?¹⁰⁹ Why do people from every culture throughout history believe that something "wholly Other" is present to them and inviting them into itself?¹¹⁰ Why do people from every culture throughout history believe that this "wholly Other" is fascinating, wonderful, and desirable amidst its mystery and overpowering energy?¹¹¹ Why do the vast majority of people from every culture feel a call to worship – both privately and publicly?¹¹² Why do people of virtually every culture naturally connect with symbols of transcendent mystery, power, and glory?¹¹³ Why do people of every culture throughout history have a sense of sacred origins, places, times, and history? 114 Why does religious belief come so naturally to children of every culture? Why do divine goodness, divine power, personified evil, and

¹⁰⁸ According to the 2012 Pew Research Religion and Public Life Project Report *The Global Religious Landscape*,

^{84%} of the world's population (in 230 countries and territories), identify with a religious group. This encompasses 5.8 billion religiously affiliated adults and children out of a world population of 6.9 billion.

¹⁰⁹ Freidrich Heiler enumerates seven major similarities amongst the seven major contemporary religions – see Heiler 1959, pp. 142-153.

¹¹⁰ See Otto 1958. This is discussed explicitly below in Section I.

¹¹¹ See Otto 1958. Discussed explicitly below in Section I.

¹¹² Eliade 1987. Discussed explicitly above in Chapter Three.

¹¹³ Eliade 1987. Discussed explicitly above in Chapter Three.

¹¹⁴ Eliade 1987. Discussed explicitly above in Chapter Three.

evil power appear in the dreams¹¹⁵ of virtually every religion and culture with similar symbols?

Religious believers and mystics assert with certainty that our interior awareness of the absolute, the transcendent, the spiritual, and the sacred comes from a divine source because this interior awareness is of something other, something higher, something not controllable by us. Though we sense this presence within us, we are aware that it is outside of us, and if we allow it, it can sweep us into its energy, mystery, and love.

Secular psychologists and anthropologists contend the opposite. Some think that they have never had an experience of a divine Other which incites humility, excitement, fascination, and worship. Others contend that they have such feelings, but are certain that their origin is from their unconscious minds and their free floating imagination.

It is interesting to note that both groups come to the investigation of religious experience with a considerable number of presuppositions. Religious people not only come with openness to faith, but also with a desire not to reduce spiritual or transcendent data to materialistic or physical categories (they are methodologically non-reductionistic). Alternatively, secular psychologists and anthropologists tend to be closed to the possibility of transcendence and faith, and feel the need to be reductionistic in order to be "honestly scientific."

There is a problem from the outset with attempting to reduce and explain transcendent and transphysical realities in terms of physical and material categories. Transcendent categories, by definition, go *beyond* the physical, and so we can never be sure whether physical categories are capable of explaining what lies beyond them. Scientific honesty does not require forcing square pegs into round holes. Should scientists ask whether transcendent experience is reducible to physical processes or should they ask whether transcendent experience can *not* be adequately explained by physical processes? Should science be focused on how to make transcendent experience explicable by physical categories, or, should it ask if transcendent experience has a dimension of the transphysical in it? Should people's experience of an absolute spiritual Other be respected as having a quality of genuine "*Otherness?*" The enterprise of honest scientific inquiry is a matter of interpretation – but we should bear in mind that every reductionistic system falls prey to one of logics most fundamental precepts (discussed earlier) – that there are far more errors of omission than commission. These errors of omission can come from innocent ignorance or from willful *aprioristic* assumptions. But whatever the case, they generally produce history's most egregious intellectual and methodological blunders.

For this reason, I have chosen to discuss the topic of our interior awareness of the transcendent from two authors who are open to the transcendent, not governed by reductionistic, methodological assumptions, acquainted with a vast number of transcendent experiences from virtually every culture and religion, have understanding and respect for the symbols and expressions of those cultures and religions, and draw their conclusions from their vast empirical and historical

115 Harvard psychiatrist Robert Coles interviewed in-depth over 500 Catholic, Protestant, Jewish, Islamic, Native-

viewpoints. See Coles 1991.

American, and agnostic children, ages 8-12, living in North and South America, Europe, Africa, and the Middle East. He found that the vast majority of children had a strong belief in a transcendent deity, who was in a relationship with them personally and with others. Since they felt that God cared for them and had expectations of them, they had strong convictions about theological matters, and wanted answers to perceived contradictions between their spiritual experience and theological doctrines. The children were earnest and sincere about their beliefs and theological

studies -- Rudolf Otto and Mircea Eliade.

I.

The Numinous Experience—Rudolf Otto - Back to top

No one has influenced the study of the interior awareness of transcendence more than the great scholar of comparative religion, Rudolf Otto in his classic work *The Idea of the Holy*. Though Otto borrowed from the American psychologist William James (*The Varieties of Religious Experience*) and the liberal German theologian Friedrich Schleiermacher, he nuances and goes beyond them in many significant respects. His seminal work influenced the great historian of religion, Mircea Eliade and most major protestant theologians of the 20th century (including Karl Barth, Paul Tillich, and C.S. Lewis) as well as Catholic philosophers and theologians, e.g. Max Scheler and Karl Rahner.

I.A

A General Description of the Numinous Experience

After a comprehensive study of historical and contemporary religion, Otto concludes that most human beings have an irreducibly, non-rational experience of the numinous (the interior presence of the transcendent or divine). The "numen" (that which is experienced as transcendent) presents itself fundamentally as "wholly Other," having two distinct poles of "feeling-content."

- 1. A sense of something mysterious, overwhelming, and daunting which elicits from us a sense of diminution, humility, submission, and creatureliness.
- 2. A sense of something fascinating, desirable, good, caring, and comforting which invites us into its fullness, fulfills us, and in so doing produces a unique kind of spiritual joy (bliss).

Otto nuances the elements of these two poles in considerable detail, careful to show their non-rational (i.e. pre-rational, pre-reflective, pre-thematic) feeling-content, which is intrinsic to the numen present to us. Before discussing these nuances, it must be emphasized that these different (virtually opposing) poles of feeling-content are not synthesized in *our* consciousness, but rather in the wholly Other *numen* present to us. The wholly Other numen is immediately present to us, and the two poles of feeling are synthesized in *it* (not in us). Otto asserts strongly that the presence of the numen to individuals is the foundation of religion throughout history and the world:

There is no religion in which [the numen present to individuals] does not live as the real innermost core, and without it no religion would be worthy of the name.¹¹⁸

It now remains to give a nuanced description of each of the poles, an explanation of their recognition in human history, and their synthesis in both the numen itself and human experience.

¹¹⁶ See Otto 1958, pp. 6-7.

¹¹⁷ As will be explained in Section II below, the numinous experience at base is one of mysteriousness in which the numinous object is felt to be completely different from the experiencing subject – "wholly Other." Otto describes it as follows: "Taken in the religious sense, that which is 'mysterious' is – to give it perhaps the most striking expression – the 'wholly other' … that which is quite beyond the sphere of the usual, the intelligible, and the familiar......(Otto 1958, p. 26).

¹¹⁸ Otto 1958, p. 6.

This will be done in three sections:

- 1. The First Pole: *Mysterium Tremendum* in the Numen (Section I.B).
- 2. The Second Pole: Fascination, Desire, Love, and Bliss in Our Experience of the Numen (Section I.C).
- 3. The Unity and Opposition of Both Poles in Our Experience of the Numen (Section I.D).

We will then consider the distinctive contribution of Christianity to the awareness of the transcendent – the *unconditional* love of God (Section I.E).

I.B The First Pole: Mysterium Tremendum in the Numen

The elements of dread, awe, dauntingness, and creatureliness are the most evident dimensions of the numen in the early stages of the development of individual and cultural religious consciousness. Since this pole of feeling-content is manifest earlier in history than the elements of the second pole, it makes sense to address it first (as Otto does). However, by putting this pole in a primary position, we do not mean to imply that it is more important or powerful than the elements of the second (more positive) pole in a mature person or culture (see below Section III).

Otto is in fundamental agreement with William James about the most basic appearance of the numen (though he thinks that James' analysis is somewhat unnuanced), and so he quotes James as follows:

It is as if there were in the human consciousness a *sense of reality, a feeling of objective* presence, a perception of what we may call "something there", more deep and more general than any of the special and particular "senses" by which the current psychology supposes existent realities to be originally revealed. ¹²⁰

Otto concurs with James that the numen appears as an objective presence – and that it is distinguishable from every other object we experience because it is deeper and more general (all-encompassing) than all other objects. However, Otto goes further than James noting that this deep and all-encompassing objective reality appears to be very *powerful* and *spiritual*, causing us to be respectful, humble, and submissive before its presence. Otto calls this reaction "creature consciousness," and distinguishes himself from Friedrich Schleiermacher who implies that the self-conscious act of being a creature is primary. Otto contends that the presence of the powerful and overwhelming numen is primary, and this causes us to react to it with a sense of reverence,

humility, and creatureliness. 121

There are two special characteristics of this first pole of experience -- overwhelming power and spiritual presence. Notice that these two characteristics are categories of *thought*, and Otto insists that such categories are not primary to the experiencing subject, but rather are derived from more primary *feeling-contents*. So what are the feeling-contents that give rise to these

¹¹⁹ See Otto 1958 pp 32-33 and the explanation of it in Section III below

¹²⁰ James 1929, p.58 (italics James').

¹²¹ Otto 1958, p. 10.

categories of overwhelming power and spiritual presence?

For Otto, the first response we have when the numen becomes present to our consciousness is fear – but not the fear we might have toward a natural object. Rather it is the fear we have toward spiritual presence – such as ghosts. The fear of natural objects (that can threaten survival or safety) tends to produce a hyperactive state (induced by adrenaline) raising blood pressure, inciting panic, making us feel warm and causing the face to flush. The fear we feel when confronted by a ghost or spirit (or hearing a ghost story) is quite different – it makes us feel cold, causes our blood pressure to drop, the blood to drain from our face, and our flesh to creep or crawl.

Otto terms this special kind of fear toward a spiritual presence "daemonic dread." "Daemon" here does not mean "demon" in the sense of a malignant or evil spirit, but only "spirit" in a general sense, which can refer to a benign or good spirit. When we feel the presence of a benign or good spirit, it evokes a sense of uncanniness, of being beyond our control or power. Its other worldly character makes it unpredictable and feels *daunting*. ¹²² Though the numen does not present itself as evil, it does present itself as "beyond us" and capable of overpowering us. ¹²³ We sense its' overwhelming or superior power even if it is manifest in a "gentle tide, pervading the mind with a tranquil mood of deepest worship." ¹²⁴ William James recounts a case study in which the superior power of the numen manifested itself gently and sublimely:

The perfect stillness of the night was thrilled by a more solemn silence. The darkness held a presence that was all the more felt because it was not seen. I could not any more have doubted that *He* was there than that I was. Indeed, I felt myself to be, if possible, the less real of the two. ¹²⁵

This higher power carries with it a profound sense of mystery and incomprehensibility. Otto describes our experience of this incomprehensible mystery as "stupor" which he distinguishes from "tremor:"

Stupor is plainly a different thing from *tremor*; it signifies blank wonder, an astonishment that strikes us dumb, amazement absolute. 126

We are tacitly aware that we cannot comprehend this higher power, and so we view it as *wholly Other*. In its overwhelming presence, we sense our creatureliness – what Otto and Schleiermacher term "creature consciousness."

There is one additional element in the feeling-content of the first pole – Otto describes it as "energy or urgency" which betokens passion or will within the numen. The felt presence of the numen not only indicates spiritual presence, overwhelming power, and incomprehensible mystery, but also something personal and passionate in its energy. Otto states:

...and it everywhere clothes itself in symbolical expressions – vitality, passion, emotional temper, will, force, movement, excitement, activity, impetus. 127

¹²³ Otto 1958, p. 19.

¹²² Otto 1958, p. 14.

¹²⁴ Otto 1958, p. 12.

¹²⁵ James 1929, p. 66.

¹²⁶ Otto 1958, p. 26.

¹²⁷ Otto 1958, p. 23.

Terms like "vitality," "passion," "emotional temper," and "will" are concepts -- what Otto terms "symbolical expressions" – representing our experience of the more fundamental feeling-contents within the numen. So how does the numen appear to us through the feeling-contents of spiritual fear, dauntingness, overpoweringness, mysteriousness, and vitality-energy? It appears as a wholly Other superior, incomprehensible, and mysterious power with passion, emotion, and will which elicits from us a sense of creatureliness, humility, submission, respect, reverence, and worship.

From Otto's descriptions, we can infer four layers in our encounter with the numen -(1) a fundamental layer of *feeling-contents* – spiritual fear, tremor, dauntingness, overwhelmingness, stupor, mysteriousness, and energy-vitality, (2) a layer of *intuited appearance* of the numen – as a wholly Other, spiritual, superior, incomprehensible power with passion and will, (3) a layer of *reaction* to the presence of this mysterious higher power – a sense of diminution, humility, respect, and creatureliness, and (4) a layer of action following our reaction – reverence and worship. This constitutes our initial or primary response to the numen. Some people, religions, and cultures do not move beyond this initial encounter with the numen (which Otto terms "the first pole"), but most major religions do move beyond it to the second more positive pole of feeling-contents. This is borne out by the fact that most contemporary religions today share seven common characteristics, four of which are derived from the second pole (see below Section III).

I.C The Second Pole: Fascination, Desire, Love, and Bliss in Our Experience of the Numen

Just as the first pole is marked by feeling-contents of dauntingness, overwhelmingness, mysteriousness, and energy-vitality, so the second pole elicits another set of feelings – we find the numen attractive, alluring, charming, fascinating, and enchanting. Otto phrases it as follows:

The mystery is for [the person experiencing the numen] not merely something to be wondered at but something that entrances him; and beside that in it which bewilders and confounds, he feels a something that captivates and transports him with a strange ravishment, rising often enough to the pitch of dizzy intoxication...¹²⁸

So what is so fascinating, alluring, enchanting, and even intoxicating in the numen? It resembles what is fascinating and enchanting in the natural world – love, goodness, beauty, home, and the joy that arises out of them. These qualities are attributed to God in all major religions, ¹²⁹ and they

are attributed to the *experience* of God in all major mystical traditions.¹³⁰ When they are experienced in the numen, they have a purer and more integrated reality than when they are experienced in the natural world. Otto states it as follows:

The ideas and concepts which are the parallels or 'schemata' on the rational side of this non-rational element of 'fascination' are love, mercy, pity, comfort; these are all 'natural' elements of the common psychical life, only they are here thought as

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¹²⁸ Otto 1958, p. 31.

¹²⁹ See below Section III on Heiler's seven common characteristics of major religions. See also Heiler 1959 pp. 142-144.

¹³⁰ See Heiler 1959 pp. 142-44 and 150-52. See also Otto 1958 pp. 36-39.

absolute and in completeness. 131

In heightened experiences of the numen (such as mystical experiences), the characteristics of the second pole have an absolute or perfect quality, which elicits ecstatic joy.

Interestingly, these characteristics are attributed to the transcendent or Divine Being by Platonists and other rational monotheists. Plato not only attempts to prove the absolute and perfect one true good love, and beautiful, but implies that he and others can experience it through the contemplation of love and the beautiful in its highest form:

He who has been instructed thus far in the things of love, and who has learned to see the beautiful in due order and succession, when he comes towards the end will suddenly perceive a nature of wondrous beauty...a nature which in the first place is everlasting, not growing and decaying... but beauty absolute, separate, simple, and everlasting, which without diminution and without increase, or any change, is imparted to the evergrowing and perishing beauties of all other things. ¹³²

Though Plato does not attribute this experience specifically to the numen (the presence of the divine within him), he associates perfect love, beauty, and goodness with the one God, and implies (in the above passage) that he and others have experienced it.

One of Plato's most ardent followers, Plotinus (204-270 a.d.) sees the mystical experience of the numen flowing directly out of contemplation of the One which is good, loving, and beautiful. His disciple Porphyry indicated that Plotinus had reached "ecstatic union with the One" on four separate occasions.

Evidently, Plotinus and other neo-Platonic philosophers went far beyond the domain of rational philosophy into their inward experience of the One. This led to an experience of the One's absolute goodness, love, and beauty, which they identify as "ecstatic union with it."

Inasmuch as this Supreme Being has the qualities of absolute love and goodness, it must in some sense be inter-relational, and this implies personal qualities. Just as numinous energy and vitality (first pole) suggests *personal* attributes such as will and passion in the numen, so also the alluring, enchanting, and fascinating elements of the numen (second pole) suggests positive *personal* attributes of openness, love, and goodness. The first pole elicits a relationship of humility, submission, and reverence while the second pole elicits a relationship of closeness, familiarity, and friendship.

Both James and Otto pay close attention to the heightened or mystical dimension of the numinous experience. James describes several cases in which ordinary people (not monks or sisters in a monastery) experienced the numen in a heightened state. One case study described it as follows:

For the moment nothing but an ineffable joy and exaltation remained. It is impossible fully to describe the experience. It was like the effect of some great

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¹³¹ Otto 1958, p. 31.

¹³² Plato 1993, 210a-211b.

orchestra, when all the separate notes have melted into one swelling harmony, that leaves the listener conscious of nothing save that his soul is being wafted upwards and almost bursting with its own emotion. ¹³³

One can see in James' case study, the contrary elements of both calm and transport – a sense of peace and propulsion. Otto notes that this peace-propulsion can be induced by the presence of the numen through many "gateways." It can come from reading a passage of scripture, reflecting on a supreme truth (e.g. perfect goodness or perfect love), taking a walk in a natural setting, hearing a bird's song, looking at religious art or architecture, hearing a religious hymn or glorious symphony, or simply sitting at one's dinner table or desk. In my case, it once occurred while giving a physics lecture. When the feeling of peace-propulsion occurs, it is generally accompanied by a profound sense of unity with everything which takes away alienation, and feels like we are perfectly at home with the totality. This sense of being "perfectly at home with the totality" is frequently connected with spiritual joy. Otto puts it this way:

....in all these forms, outwardly diverse but inwardly akin, it appears as a strange and mighty propulsion towards an *ideal good known only to religion* and in its nature fundamentally non-rational, which the mind knows of in yearning and presentiment, recognizing it for what it is behind the obscure and inadequate symbols which are its only expression. And this shows that *above and beyond our rational being* lies hidden the ultimate and *highest part of our nature*, which can find no satisfaction in the mere allaying of the needs of our sensuous, psychical, or intellectual impulses and cravings. The mystics called it the basis or *ground of the soul*.¹³⁴

In this remarkable passage, Otto describes three key characteristics constituting a *heightened* experience of the numen:

- 1. The numen causes a sense of propulsion into itself.
- 2. In this propulsion, we sense the numen as perfect goodness and a Supreme Being (known only to religion).
- 3. Our temporary connection or unity with this Supreme perfect goodness reveals to us our highest transcendent nature our soul, which can only be satisfied by the Supreme goodness.

For James and Otto, many individuals from virtually every major religion and culture have heightened experiences of the numen. Embedded in that experience is an awareness that our propulsion toward it (being swept into it) is not caused by ourselves, but induced by the Divine "wholly Other" present to us. As we are swept into it, we become aware at once of its supremeness and goodness (including elements of both the first and second poles), and when this happens we are transformed – we no longer think that we are merely physical or material, but that we are transcendent, having a soul, which can only be satisfied by supreme goodness itself. This puts all material things into perspective – as merely partial, temporary satisfactions of our sensuous and psychical nature.

Though these *heightened* experiences are important, it should not be thought that incisive

¹³³ James 1929 p. 66.

¹³⁴ Otto 1958 p. 36. (Italics mine).

encounters with the numen are limited only to people who have experienced them. The "average person" can enjoy sparks of divine love-goodness-beauty-joy, but it might occur so gently, subtly, and quickly that they fail to recognize what is happening to them until they encounter a book or a conversation which describes the numinous experience. After hearing these descriptions, they might say, "Well, I've never had a heightened experience of the numen, but I think I have had an experience of connecting with God that has His distinctive signature in it – some sense of supremeness, specialness, holiness, and goodness which is different from other interior experiences."

Sometimes the average person can be praying an ordinary prayer like the "Our Father" or a well-known Psalm, and sometimes a few of the words will, as it were, leap off the page — leaving in its wake a feeling of supremeness-holiness-goodness-peace. Sometimes the average person can look at the simplest religious object — a little picture or statue — and it will incite the same special interior experience. Sometimes these same stimuli can cause us to recall a hazy experience of something that happened to us as children or young adults. Frequently young people do not reflect on the specialness of their experience, and therefore have no *rational* memory of them. Nevertheless, they have a *pre-rational* memory of them, and when the numen presents itself in a gentle way (say, looking at a picture), it brings to mind the feeling embedded in their pre-rational memory, causing them to say, "That was really strange — I feel like I remembered something profound and good from my past."

We should not underestimate our proclivity to put pre-rational memories into the recesses of our mind. When we don't reflect on the specialness of an experience, we don't remember it *as special*. It simply gets remembered as a set of intense feelings that can be reawakened when it happens to us again. When C.S. Lewis was a child, he had *heightened* experiences of the numen, but because he did not reflect on them as special, he simply put this peculiar set of feelings into the recesses of his mind, which he only remembered after having religious conversations and subtler experiences of the same feelings as an adult. ¹³⁵

These seemingly strange but subtle experiences should not be discounted, for even though the experience can be gentle, subtle, and brief, it will retain traces of the distinctive signature of the numen (supremeness, mystery, and holiness combined with some sense of goodness, love, and/or joy). The most subtle of these experiences communicates a sense of our true home in the supreme and holy goodness, which elicits a sense of peace (absence of alienation) and unity with everything in which time stands still.

Though it seems like a contradiction to suggest that the numinous experience can be subtle or gentle, the numen can relieve alienation gently, can reveal its superior power and incomprehensibility softly, and can overwhelm us with deep beauty and goodness like Elijah's "gentle breeze:"

[The Lord said to Elijah] 'Go out and stand on the mountain, I want you to see me when I pass by.' All at once, a strong wind shook the mountain and shattered the rocks. But the LORD was not in the wind. Next, there was an earthquake, but the LORD was not in the earthquake. Then there was a fire, but the LORD was not in the fire. Finally, there was a gentle breeze, and when Elijah heard it, he covered his face with his coat (1Kings 19:11-13).

¹³⁵ Lewis 1966

As noted above, when the numen presents itself in a gentle or subtle way, and we do not reflect upon the specialness of the experience, we put the experience in the recesses of our mind. We might say that it becomes subconscious or unconscious. Sometimes we will have stronger experiences of the numen later in our lives and then we frequently bring our subconscious or recessed memory to our conscious mind, enabling us to see a pattern of interaction with the Divine One throughout life. However, if we don't have a strong experience later in life, does that mean that the gentle presence of the numen is completely ineffective in our lives? Absolutely not. As will be seen with respect to Mircea Eliade's analysis of sacred symbols and the transconscious, multiple, subtle, unreflective experiences of the numen create a strong unconscious impression which becomes part of our general frame of mind, causing us to desire, seek, and value sacred and religious symbols, community, worship, and revelation. The numen's subtle and persistent appearance causes us to be naturally spiritual and religious, inciting us to find outward communal expressions of what we interiorly sense and desire. This may explain why the vast majority of people throughout history have had a sense of the spiritual and transcendent, have sought religious communities, were moved by sacred symbols, liturgy, and music, and found their highest sense of fulfillment through these outward expressions and connections to the transcendent and spiritual domain.

I.D The Unity and Opposition of Both Poles in Our Experience of the Numen

The two poles of the numinous experience might be compared to the double-helix characterizing DNA – they are not really separated in the numen, but rather fully integrated, complementing each other, presenting a good and even loving Deity. As Heiler indicates in his seven common characteristics of major religions, the supreme transcendent reality for all major religions is loving, and the Deity reveals this love within human beings. ¹³⁶ When we combine the studies of Otto and Heiler, it is difficult to imagine that the numen is not in some sense *personal*. Even if we concentrate on the mysterious, incomprehensible, and wholly Other characteristics (of the first pole) associated with some eastern religions, we still sense that the numen is making itself felt – inviting us more deeply into itself — and is not simply a passive depersonalized reality (like a metaphysical substrate) into which we are merely and ultimately assimilated. When the second pole (which includes a sense of goodness, love, comfort, peace, and joy) is considered along with the characteristics of the first pole, the *personal* element of the "wholly Other" becomes more clear, because the characteristics of the second pole are oriented toward relationship — and specifically, fulfillment and joy in relationship. Understating the characteristics of the second pole generally leads to a diminution of the personal qualities of the numen.

There is one other observation that should be made before nuancing the feeling-content of both poles. Otto believes that the first pole (the mysterious, powerful, and daunting pole) is the primary manifestation of the numen in the development of religious consciousness, and the second pole (which is always present but deemphasized in early cultures) becomes gradually manifest as history progresses. The gradual manifestation of this second pole may be a major influence in the progress of culture throughout the world. It seems to come to light with specially inspired prophets, wise men, and enlightened individuals. These enlightened individuals – these external sources of inspiration -- do not invent these positive characteristics of the Transcendent Reality, but rather point to *It* as the origin of their enlightenment. Thus if Buddha, Ezekiel or Jesus speaks about the love of the Transcendent Reality, they are speaking about their *experience* of that Reality, and not

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¹³⁶ See Heiler 1959, p. 143 (the fourth characteristic of all major religions).

about their theological speculations. We assent to their teachings, not out of blind faith in their authority, but out of an interior conviction that what they are saying resonates deeply with what we know to be intuitively true. They are saying something that we recognize from our experience of the numen, and for this reason, people (both individually and collectively) are willing to allow their thoughts about the numen (at first sensed to be daunting) to evolve toward a fascinating, caring, and joy-filled Being. Otto puts it this way:

It may well be possible, it is even probable, that in the first stage of its development the religious consciousness started with only one of its poles – the 'daunting' aspect of the numen – and so at first took shape only as 'daemonic dread.' ¹³⁷ But if this did not point to something beyond itself, if it were not but one 'moment' of a completer experience, pressing up gradually into consciousness, then no transition would be possible to the feelings of positive self-surrender to the numen. The only type of worship that could result from this 'dread' alone would be that of Expiation and propitiation, the averting or the appearsement of the 'wrath' of the numen. ¹³⁸

The emergence of the second pole in the evolution of religious consciousness is corroborated by the work of Friedrich Heiler's seven common characteristics among the world's major religions:

- 1. The transcendent, the holy, the divine, the Other is real (from the first pole).
- 2. The transcendent reality is immanent in human awareness (from the first pole).
- 3. This transcendent reality is the highest truth, highest good, and highest beauty (from the second pole).
- 4. This transcendent reality is loving and compassionate and seeks to reveal its love to human beings (from the second pole).
- 5. The way to God requires prayer, ethical self-discipline, purgation of self-centeredness, asceticism, and redressing of offenses (from mostly the first pole).
- 6. The way to God also includes service and responsibility to people (from the second pole).
- 7. The highest way to eternal bliss in the transcendent reality is through love (from the second pole).

The world's major religions differ considerably on the interpretation of the above seven common characteristics, and in several cases, some of the characteristics are elevated above others or even mitigate others. However, if one accepts at least traces or fragments of the above seven characteristics in all major religions, it reveals the presence of Otto's second pole in the gradual evolution of religious consciousness, suggesting strongly that this pole is intrinsic to our common experience of the numen. If the second pole were not present in our common experience of the numen, it would be difficult to explain how the third, fourth, sixth, and seventh characteristics became universally recognized and accepted.

¹³⁷ Recall that "daemonic" does not mean "demonic" in the sense of an evil or malignant spirit. It only refers to the other worldly reality of the spiritual, which like sensing a ghost (or hearing a ghost story) can elicit uncanniness, a shudder, "creeping flesh" – which points to an uncontrollable spiritual presence near us or in us.

¹³⁸ Otto 1958, p. 32.

The probable reason why early religious consciousness emphasized the first pole was because its characteristics are powerful and fearful, and like children, we pay most attention to what can harm or overpower us. As we mature and become less daunted by the overpowering and uncontrollable other, we allow the *other's* more benign and compassionate qualities to be recognized -- typifying Maslow's need hierarchy.

In that theory, Maslow ranks basic human needs according to five levels – (1) physical needs, (2) safety and security needs, (3) the need for love and belonging, (4) the need for esteem/self-esteem, and (5) self-actualization. Maslow contends that when needs on a more basic level are not met, we will not feel need on higher levels. However, when that more basic need is met, the next level of need emerges as important. Accordingly, when religious consciousness is preoccupied with the daunting, mysterious, and uncontrollable qualities of the numen (safety and security needs), it is unlikely to experience a need for love and belonging from the numen. However, over the course of time, it becomes apparent that the numen is not *completely* daunting in its interaction with us – and that the numen manifests graciousness and goodness – at which point, the need for security becomes much less important, and the need for love emerges. At that point, the second pole of the numen's feeling-contents becomes evident and desired.

I.E Conclusion

When we combine Otto's elucidation of our interior awareness of a divine wholly Other with the evidence from Eliade's study of the sacred, Kant's and Newman's study of conscience, and Tolkien's and Jung's study of the universal archetypal symbols and the archetypal myth of the cosmic struggle between good and evil, the evidence for God's presence to us will gain in probative force, for it will be corroborated by four distinct kinds of data, all pointing to the same conclusion.

II. The Intuition of the Sacred—Mircea Eliade – Back to top

Mircea Eliade (1907-1986) was a philosopher and historian of religion at the University of Chicago who elaborated one of the most comprehensive transcultural and trans-historical theories of the origin of religion. Born in Romania and educated at the University of Bucharest, he became familiar with the work of Rudolf Otto on the numinous experience, which influenced his thought on the philosophy of religion. ¹⁴⁰ He is the author of hundreds of articles, the general editor of the

were self-seeking. See Otto 1958 pp 15, 33, & 66.

¹³⁹ Otto believes that in the transition from emphasis on the first pole to integration of the first and second poles, there is an intervening stage of magic. As the benevolent qualities of the numen emerge, priests or shamans attempt to control or manipulate the benevolent side of the divine Other by means of incantations, formulae, or other magical pursuits. However, this intervening stage is temporary, and is corrected by specially inspired prophets or wise people – who point to the purity of goodness and love in the divine, and discourage attempts to manipulate the deity – as if it

¹⁴⁰In addition to Otto, Eliade was influenced by Gerard van der Leeuw, the Dutch philosopher and historian of religion who wrote a seminal phenomenological approach to religion in 1933 entitled *Religion in Essence and Manifestation: A Study in Phenomenology*, and Rene' Guenon, French philosopher of religion and metaphysics who set out a theory of cross-cultural "universals" among world religions – as well as other philosophers and historians of religion

sixteen-volume *Encyclopedia of Religion*, ¹⁴¹ and the author of dozens of books including *The Sacred and the Profane*: *The Nature of Religion*, ¹⁴² and *Patterns in Comparative Religion*, ¹⁴³ all of which proved to be highly influential in the contemporary study of comparative religion. After making an incredibly comprehensive cross-cultural study of the history of religions, Eliade concluded that religion originates from an irreducible experience of the sacred (common to most human beings) which seeks to find its outward cultural expression in myths and rituals. These myths and rituals become the communal gateways to connecting with the Transcendent Reality.

The reader may recognize the hand of Rudolf Otto in Eliade's use of "the irreducible experience of the sacred," but it should not be thought that Eliade blanketly based his research on Otto's studies. Instead, he found Otto's conclusions to be probative and conducive to explaining his own research into the cross-cultural expression of religion. Putting it the other way around, Eliade's research into myths, symbols, rituals, and the sacred led him to conclude that Otto was correct about the numinous experience because it could explain several cross-cultural common elements in religious expression. It could also explain the drive of *individuals*¹⁴⁴ (across cultures) to seek out and experience sacred myths, rituals, symbols, and communities. This last point enables Eliade's research to *expand* and *corroborate* Otto's findings (which are based on the data of *individual interior* experience of the holy) by adding the component of *outward community* expression of the sacred. Eliade worked in the reverse direction of Otto. Instead of moving from individual interior experience to outward expression, he moved from outward communal expression to interior experience. We will examine the significance and corroborative features of his research in three steps:

- 1. His findings about the common cross-cultural elements of religion (Section II.A).
- 2. His characterization of the religious individual -- "homo religiosus" (Section II.B).
- 3. His contention that rejection of the sacred will produce a heightened state of existential anxiety in "modern man" (Section II.C).

II.A Common Elements in Cross-Cultural Religious Expression

Eliade uses two major concepts to organize the common cross-cultural elements of religious expression: (1) "hierophany" and (2) "homo religiosus." A brief explanation of each from his seminal work *The Sacred and the Profane: the Nature of Religion* will help to elaborate his theory.

"Hierophany" -- from Greek -- means "appearance of the sacred." It expands the more common term theophany ("an appearance of God") to include all world religions. All world religions are based on a belief that transcendent reality (whether it be God or gods or a quasi-

¹⁴² Eliade 1987.

¹⁴¹ Eliade 1986.

¹⁴³ Eliade 1996.

¹⁴⁴ Eliade distinguishes between "traditional man" and "modern man" in this regard. Up to the 18th Century Enlightenment, the vast majority of human beings across the globe strove to find meaning and reality in sacred places, times, myths, symbols, and rituals. However, since the modern age, "modern man" has become progressively more distanced from the perspective of "traditional man," thinking that rational (scientific and mathematical) explanations are superior to religious ones.

personal force) has broken into the world, bringing with it sacredness or holiness (transcendent goodness, power, and beauty) splitting the world into two parts – "the sacred" (connected to transcendent reality) and "the profane" (not connected to transcendent reality). Eliade described this universal dimension of hierophanies as follows:

It could be said that the history of religions – from the most primitive to the most highly developed – is constituted by a great number of hierophanies, by manifestations of sacred realties. From the most elementary hierophany – e.g. manifestation of the sacred in some ordinary object, a stone or a tree – to the supreme hierophany (which, for a Christian is the incarnation of God in Jesus Christ) there is no solution of continuity. ¹⁴⁵

Every religion identifies a place and a time (or places and times) when the transcendent breaks into the world (and world history). When it does, it makes holy or sacred the place and the time of the "breakthrough." The sacred place does not simply remind (mentally) religious people about the "breakthrough," it retains its sacredness, so that pilgrims who come to it can continue to have an experience of the transcendent which sanctifies them. Thus pilgrims actually experience the sacred at the place where the transcendent reality appeared. In primitive religions, villages have centers which imitate a place of sacredness, and then extend out from that center. Eliade notes in this regard:

...Settling in a territory reiterates the cosmogony. Now that the cosmogonic value of the Center has become clear, we can still better understand why every human establishment repeats the creation of the world from a central point (the navel). Just as the universe unfolds from a center and stretches out toward the four cardinal points, the village comes into existence around an intersection. 146

The creation or origin story provides an ideal model of place that when imitated sacralizes villages, temples and homes. According to Eliade:

...religious architecture simply took over and developed the cosmological symbolism already present in the structure of primitive habitations. In its turn, the human habitation has been chronologically preceded by the provisionally consecrated and cosmicized... All symbols and rituals having to do with temples, cities, and houses are finally derived from the primary experience of sacred space. 147

In virtually every culture, the hierophany not only sacralizes space and place, but also time. The time of the hierophany is the origin or creation of reality. It is *the* sacred time, and like sacred places has the capacity to sacralize people who enter into it. But how can a religious person enter into the sacred time (the time of origin or creation)? With every elapsed moment of time, we pull further away from the sacred time (origin), and so it would seem that we become more and

¹⁴⁶ Eliade 1987, p. 45.

¹⁴⁵ Eliade 1987, p. 11.

¹⁴⁷ Eliade 1987, p. 58.

more profane as history progresses. Eliade discovered that most religions do not have this problem because of their belief in what he terms, "the myth of eternal return." ¹⁴⁸

For Eliade, "the myth of eternal return" refers to the capacity to return to the time of origin or creation by participating in religious rituals or recounting sacred myths. Sacred rituals are not simply a commemoration or mental remembrance of the sacred origin; they are a *reliving* or "reactualizing" of it. As the ritual is celebrated, the participants enter into the sacred time of origin allowing them to connect with the transcendent reality in it.

Myths have the same mystical powers as rituals. As myths are recounted, the participant re-enters the past sacred event – almost as if the time separating it from the present moment collapsed (or did not exist at all). This puts the participant in contact with the transcendent reality who was present at that time. Eliade phrases it this way:

In *imitating* the exemplary acts of a god or of a mythical hero, or simply by recounting their adventures, the man of an archaic society detaches himself from profane time and magically re-enters the Great Time, the sacred time. ¹⁴⁹

So what happens to the participants in sacred rituals and the recounting of sacred myths? When the participant connects with the transcendent reality through the sacred passageways that collapse time, they come into contact with what Elide calls a "paradigmatic model" – that is with absolute truth and goodness toward which they will want to strive and ultimately imitate:

The myth relates a sacred history, that is, a primordial event that took place at the beginning of time, *ab initio....*.Once told, that is, revealed, the myth becomes apodictic truth; it establishes a truth that is absolute.¹⁵⁰

This paradigmatic model – this absolute truth – is not abstract; it is embedded in the stories of the creation and the heroes that completed the act of creation. Thus there is a call within the myth to imitate the actions and the virtues of heroes (and to shun the actions and vices of villains). Rituals and myths, then, provide two functions:

- 1. They strengthen the participant by putting them into contact with the sacred moment of origin (and through this, the transcendent reality itself).
- 2. They present a paradigmatic model or action and virtue which is felt to be absolute truth.

The breakthrough of the transcendent reality is not neutral. It provides strength and a paradigmatic model to all participants who enter into the rituals and myths that re-present it. In so doing, it tells us how to attain our true purpose (divine purpose) which in turn tells us how to live our lives and how to develop our character (by imitating the heroes of the great time of origin). The actions of the great heroes show us not only how to act, but why we ought to act that way;

¹⁴⁹ Eliade 1975.

¹⁴⁸ Eliade 1971.

¹⁵⁰ Eliade 1987, p. 95.

they give us clues about the end and goods for which we should be living, and show how certain actions fulfill those ends or goods.

For Eliade, religion is the key not only to connection with the transcendent reality, but also to purpose in life, to the ends and goods connected with that purpose, and to the virtues and actions that accomplish them. Without religion, "traditional man" (who lived in a society before the pervasiveness of the scientific and Enlightenment mentality – prior to the 18th Century) would have been purposeless, directionless, and virtueless. He would not only have been lost; he would have been insignificant and even reduced to nothing.

This last point deserves explanation. For traditional man, the sacred is reality, and the profane is insignificant and virtually unreal. So failure to make contact with the sacred is to be reduced to nothingness, and failure to imitate the paradigmatic model of the sacred is to be reduced to insignificance.

In sum, Eliade has made a most remarkable discovery – namely that for more than four millennia, human beings from virtually every culture around the world yearned for and sought the sacred. In virtually every culture the expression and the fulfillment of that yearning is similar in four general areas:

- 1. A belief in the sacred (transcendent reality) in which there is absolute truth and goodness.
- 2. The Sacred (transcendent reality) desires to connect with human beings and so enters into the profane world at a particular place. Its entrance into the world is the originative or creative moment. The physical world may have existed before the sacred's entrance into it, but the world was not significant or real prior to its entrance. Thus for traditional man true reality and meaning began when the sacred reality broke through.
- 3. When the sacred reality broke through, it sacralized (made holy) the place and time it entered. When human beings draw close to the place of entrance it makes them holy. Similarly when human beings celebrate the ritual of origin and recount the myth of origin, ¹⁵¹ time collapses, and they re-enter the sacred time of origin again connecting them with the sacred which strengthens them.
- 4. The celebration of rituals and recounting of myths not only strengthens the participants but also imparts what Eliade terms "paradigmatic models" that is lessons about purpose in life, the goods to be pursued, evils to be avoided, the virtues and laws that will help to achieve the good, and the vices that will undermine it. Thus traditional man receives purpose, direction, and virtue from reentering the sacred time through ritual and myth.

The odds of these similarities among the world's religions occurring by pure chance are exceedingly low, so we must seek an explanatory cause. What could have produced this four-fold coincidence of religious belief and expression in so many utterly diverse cultures with so many distinct histories? The sheer *variety* of communities, cultures, and histories virtually rules out *social* explanations as a cause of the four *common* features of religion. In the absence of a *social* cause, we will have to examine whether there could be a *common* cause within *individual humans*

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¹⁵¹ The myth of origin is not only the precise moment at which the sacred enters the world; it includes unfolding of the originative moment through the actions and virtues of heroes, the overcoming of evil, and the teaching and development of human beings.

beings who participate in very different cultures. We have already seen one potential candidate for a common cause within a vast majority of individuals – namely Otto's numinous experience. However, before we can turn to this *supernatural* interior explanation, we must rule out potential *natural* (*physical*) explanations. Though we cannot *completely* rule out a *natural* cause, we can show the vexing questions that natural causes (insofar as they are natural) will be unlikely to answer:

- 1. How does a *natural* (physical) cause produce an awareness of *transcendent* reality, a desire to draw close to that reality, and a passion to seek it?
- 2. How can a *natural* cause produce a belief that the transcendent reality wants to connect with human kind, and will even "step down" to enter into the profane world to make it sacred for human kind?
- 3. How can a *natural* cause produce a belief that the transcendent reality is *absolutely* good and possesses *absolute* truth?
- 4. How can a natural cause produce a belief that real meaning and reality itself does *not* come from profane nature, but only from the sacred reality?

Eliade (and his colleagues) never found an adequate answer from the domain of natural causation. As a result, he rejects the possibility of finding such an answer from any secular scientific or social scientific discipline (psychology, sociology, anthropology, etc.). Realizing that no combination of natural phenomena could add up to a transnatural or supernatural one, he concluded that the cause must be some *irreducible* presence of the sacred-transcendent reality within us:

To try to grasp the essence of such a phenomenon [hierophany – the appearance of sacred transcendent reality in the world] by means of physiology, psychology, sociology, economics, linguistics, art or any other study is false; it misses the one unique and *irreducible* element in it – the element of the sacred. Obviously there are no *purely* religious phenomena; no phenomenon can be solely and exclusively religious. Because religion is human it must for that very reason be something social, something linguistic, something economic...But it would be hopeless to try and explain religion in terms of any one of those basic functions which are really no more than *another* [natural] way of saying what man is. 152

Viewing this from the vantage point of an individual person, Eliade would assert that the interior cause for the awareness of, desire for, and fulfillment through the sacred cannot be fear, anxiety, biological impulse, or merely imaginary wish fulfillment. In the words of John Holt (writing the introduction to *Patterns in Comparative Religion*):

Eliade rejected every social scientific attempt to explain the totality of religious experience causally. For him, religion was more than an arena of meaning or discourse produced by an anxiety, an acquisitive disposition, political aspirations, or simply a penchant for creativity. As a phenomenologist, Eliade never tired of arguing that religion must be described and understood on its own terms, or within its own plane of reference. That is, the sacred manifests itself in "hierophanies"; it

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¹⁵² Eliade 1996, p. xvii.

has a language and form of its own that has been recognized historically and cross-culturally. 153

If natural causation (and the methodologies that describe and explain natural causes) cannot explain the occurrence and prevalence of the sacred throughout the world, we will have to look toward a supernatural explanation. Could Rudolf Otto's numinous experience provide the explanation for the similarities among world religions? Could it be the *supernatural* interior cause of what Eliade calls the "irreducibly sacred" in all religious experience, belief, and expression? In view of the likelihood that Otto's numinous experience comes from the presence of the transcendent reality within us I would submit that it is a very probable candidate. In order to give a more definite answer to this question, we will want to first examine Eliade's idea of "homo religiosus."

II.B *Homo Religiosus*

In the previous Section we discussed Eliade's four similarities among world religions and how to find a reasonable explanation for this remarkable phenomenon among utterly diverse cultures throughout history. We now move into the interior domain of the people who participate in these religions (who Eliade terms *homo religiosus*). Do the similarities among world religions indicate a concomitant similarity among religious people? Eliade is convinced that they do:

...Religious man assumes a particular and characteristic mode of existence in the world and, despite the great number of historico-religious forms, this characteristic mode is always recognizable. Whatever the historical context in which he is placed, *homo religiosus* always believes that there is an absolute reality, *the sacred*, which transcends this world but manifests itself in this world, thereby sanctifying it and making it real. He further believes that life has a sacred origin and that human existence realizes all of its potentialities in proportion as it is religious – that is, participates in reality. The gods created man and the world, the culture heroes completed Creation, and the history of all these divine and semidivine works is preserved in the myths. By reactualizing sacred history, by imitating the divine behavior, man puts and keeps himself close to the gods – that is, in the real and significant. ¹⁵⁴

Editor's note:

Readers interested in more material on homo-religiosus will want to consult *The Soul's Upward Yearning* – Chapter Two.

II.C. The Anxiety of "Non-Religious Man"

Up to now, we have been summarizing Eliade's findings about religion in what he calls "traditional man." Recall that this term signifies the mindset of people prior to the time when scientific and Enlightenment viewpoints became dominant among certain groups in Western Europe (around the 18th century). Recall also that virtually every person at the time of traditional man was *homo religiosus*. Though Eliade indicates the presence of some philosophical atheism or

agnosticism during that time, it was so rare that it did not represent what might be termed a "cultural viewpoint."

The time of "modern man" is distinct, because a significant percentage of modern individuals are non-religious (16%), and in Western Europe, the percentage is significantly higher (approximately 50%). Furthermore the perspective of what Eliade calls "modern non-religious man" is becoming dominant in Western Europe, and some of this is spreading to other modern democracies around the world. Do Eliade's (and Otto's) findings apply to modern man? Can modern man be considered "homo religiosus"?

Most religious people in the modern world (84%) still possess many, if not most, of the characteristics of *homo religiosus*. ¹⁵⁵ They believe in an absolute transcendent reality that manifests itself in the world, and in so doing, sanctifies the world and gives it significance (ultimate significance). They also believe that life has a sacred origin (and is therefore sacred) and that human potentiality can only be realized (both in this world and the next) through a vital

¹⁵⁵ 2012 The Pew Global Religious Landscape Study indicates that 84% of the world's population self-identify as believers who subscribe to religion. The Pew Study did not measure specifically for Eliade's characteristics of *homo religiosus*, but inasmuch as most world religions adhere to most of these general characteristics, and most individuals who self-identify as "subscribers to religion" are in general agreement with the basic tenets of religion, it seemed reasonable to infer that most of them subscribe to most of Eliade's characteristics of *homo religiosus*.

connection with the sacred transcendent reality. Finally they make recourse to sacred stories, rituals, and symbols to commemorate and re-enter sacred time and place in order to participate in holiness (the sacred) and to be strengthened in their capacity to follow the paradigmatic models provided by the sacred realities entrance into the profane world. Inasmuch as they exemplify homo religiosus, they satisfy their desire for transcendent reality incited by the numinous experience, and find a source of the ultimate meaning, fulfillment, and reality they yearn for. This ultimate meaning, fulfillment, and reality does not come from merely intellectual assent to the existence of a transcendent reality, but more from connecting with and relating to the sacred reality (through sacred ritual and sacred writings ¹⁵⁶) and following the goods, ends, and virtues elucidated by these sacred writings.

Evidently modern religious people experience the same problems arising out of natural causation, economic difficulties, political turmoil, and other worldly challenges as modern nonreligious people. However, religious people have a level of ultimate, transcendent, and sacred meaning, hope, happiness, dignity, and destiny that "modern nonreligious people" have implicitly or explicitly denied. Furthermore modern homo religiosus has an ultimate and transcendent sense of the good and virtue that "modern nonreligious people" do not recognize. For Eliade, this absence of the sacred in modern nonreligious people introduces a heightened anxiety about existence, meaning, and reality (what might be called "existential anxiety" 157). It comes from "the absence of things yearned for" - that is the absence of the transcendent which we desire implicitly or explicitly (because of the numen's presence within us). For Eliade, the more modern nonreligious people reject the sacred and the transcendent, the more acute their alienation from self and reality becomes, which brings with it an increasing sense of existential anxiety. 158

Does Eliade's contention here stand up to scrutiny? Interestingly, it is the hallmark of not only theistic existentialism but also atheistic existentialism (e.g. Sartre, Camus, Kafka, etc.). In Volume 13 (Chapter Five) we will describe existential anxiety in both theistic and atheistic existentialist schools. We will there refer to it as "cosmic emptiness, alienation, loneliness, and guilt." These anxieties are frequently alleviated through religious faith. But is there more than philosophical and anecdotal evidence for the efficacy of religion in psychological health?

The 2004 study in the American Journal of Psychiatry correlated nonreligious affiliation with suicide rates and found that nonreligious affiliation was the strongest contributing factor to an increase in suicide (verifying the conjectures and predictions of Eliade and theistic existentialists). The study concluded:

> Religiously unaffiliated subjects had *significantly* more lifetime suicide attempts and more first-degree relatives who committed suicide than subjects who endorsed a religious affiliation. Unaffiliated subjects were younger, less often married, less often had children, and had less contact with family members. Furthermore, subjects with no religious affiliation perceived fewer reasons for living,

¹⁵⁶ In modern cultures, sacred writings include more than the great myths. They also include theological histories (many of which accurately recount historical facts and events), wisdom sayings, prophetic utterances, prayers, and laws. Therefore when referring to "modern man," I will use "sacred writings" instead of "sacred myths." ¹⁵⁷ For a complete explanation of "existential anxiety," see Volume 13 (Chapter Five).

¹⁵⁸ Eliade 1987, p. 211.

particularly fewer moral objections to suicide. In terms of clinical characteristics, religiously unaffiliated subjects had more lifetime impulsivity, aggression, and past substance use disorder. No differences in the level of subjective and objective depression, hopelessness, or stressful life events were found. 159

This statistical verification of the positive effects of religion on the human psyche supports Eliade's and existentialists' predictions about the alienation of many nonreligious people. If this trend continues, modern nonreligious culture may be headed for a crisis in which it no longer sees a call to higher principles, virtues, ideals, dignity, and destiny – progressively losing its sense of hope in a positive future, leaving its participants in a state of moral and metaphysical alienation, emptiness, and superficiality – reduced to "little worlds of materialism, autonomy, and self-indulgence." Eliade believes that this crisis may be inevitable because modern nonreligious man's sense of self and freedom is based upon the rejection of the sacred:

Modern nonreligious man assumes a new existential situation; he regards himself solely as the subject and agent of history, and he refuses all appeal to transcendence. In other words, he accepts no model for humanity outside the human condition as it can be seen in the various historical situations. Man *makes himself*, and he only makes himself completely in proportion as he desacralizes himself and the world. The sacred is the prime obstacle to his freedom. He will become himself only when he is totally demysticized. He will not be truly free until he has killed the last god. ¹⁶⁰

Is the viewpoint of modern nonreligious man justified? Is collective existential anxiety and crisis inevitable? Do freedom and self-identity have to come from the rejection of the sacred? Otto and Eliade think not. The remarkable cross-cultural and cross-historical coincidence of the human sense of the spiritual (the numinous experience) and expression of the sacred (hierophany) and the likelihood that these remarkable coincidences have an interior supernatural origin should give the modern person pause, for there may be good reason to suspect not only that human beings have a transcendental dimension (and are destined for transcendental fulfillment), but are created in a relationship with the transcendental reality that is at once mysterious, daunting, and wholly Other, as well as desirable, fascinating, good, and caring.

Some contemporary critics may object that the interior evidence of the numinous, and the cross-cultural evidence of religious expression are not enough – no matter how omnipresent they are. This objection may be grounded in an inability to detect the numinous experience for themselves or to desire a connection with the sacred through ritual and sacred writings. No doubt these individuals see their inner world to be devoid of transcendent awareness and desire; however this is not the only way of gaining access to the sacred. Frequently, it is easier to detect its presence through the negative effects of rejecting it – that is, through the anxiety, alienation, and emptiness that arises out of ignoring or frustrating it. Is the reason that non-religiously affiliated people have significantly higher suicide rates, less reasons for living, less contact with family, and greater anxiety merely a result of fear or unfulfilled wish — or rather, is it a result of radical incompleteness of being, purpose, and destiny? Non-religious people must answer this

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¹⁵⁹ The statistical analysis for this conclusion may be found in Dervic et al. 2004. pp 2303-2308.

¹⁶⁰ Eliade 1987, p. 203.

question for themselves. However, if theistic existentialists are correct, the anxiety is not so much a matter of fear as emptiness and loneliness; not so much a matter of unfulfilled wishes as alienation from self and reality. If this is the truth, then Otto and Eliade hold out a solution to the existential anxiety of modern times — namely, an openness to the transcendent reality within us and to collective participation in religious community, ritual, and symbol.

There are other clues to the transcendental nature of human beings and our relationship to a transcendent reality beyond that of Otto and Eliade:

- (1) The origin of conscience (Section III.)
- (2) Four transcendental desires for perfect truth, love, goodness, and beauty (Section II.)
- (3) The evidence of survival of bodily death from medical studies of near death experiences (Section I.)

These other clues corroborate the findings of Otto and Eliade, strengthening the plausibility and expanding the horizon of our transcendental nature and destiny.

III. Kant and Newman on the Divine Origin of Conscience – Back to top

The transcendent reality has frequently been identified as the source of the *good* – the good in itself and the good in human consciousness. Otto's research indicates that the numinous is perceived to be good while Eliade's research indicates that hierophanies concern not only the breakthrough of the sacred into the world, but also the revelation of paradigmatic models for human behavior. The identification of the transcendent reality with the good is not only a part of religious intuition, but also philosophical reflection since the time of the ancient Greeks.

Plato believed that the highest reality was the good itself, ¹⁶¹ and that the good itself was present to human beings, and that we could know it through questioning and dialectic. St. Paul brought these considerations to a whole new level by showing that all human beings could know the good (as well as evil) through their *consciences*. In the Letter to the Romans, he reflects on the Gentile's ability to know God's law without having the benefit of Judeo-Christian revelation:

Indeed, when Gentiles, who do not have the law, do by nature things required by the law, they are a law for themselves, even though they do not have the law. They show that the requirements of the law are written on their hearts, their consciences $[\sigma \nu \nu \epsilon i \delta \eta \sigma \iota \varsigma]$ also bearing witness, and their thoughts sometimes accusing them and at other times even defending them (Rom 2: 14-15).

For St. Paul, "the law" is *God's law*, and he asserts that God writes this law on the hearts of all people so distinctly that it accuses and defends them.

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¹⁶¹ Plato 1961 (b), Bk. VII.

St. Thomas Aquinas concurred with St. Paul, and formulated a general explanation of conscience, which has become a cornerstone of philosophy up to the present time. Conscience has two components:

- 1. What Aquinas called "*synderesis*" (an attraction to and love of the good and a fear of and repulsion toward evil), and
- 2. Awareness of certain *general* precepts of the good.

With respect to *synderesis*, our attraction to and love of the good leads to feelings of nobility and fulfillment when we do good (or contemplate doing it). Conversely, our fear of and repulsion toward evil leads to feelings of guilt and alienation when we do evil (or contemplate doing it). ¹⁶²

Conscience not only has the above emotional and personal component, it also has an intellectual one. We have a sense of *what* is good or evil (in a general way). These precepts might include do good, avoid evil, do not kill an innocent person, do not unnecessarily injure another, steal from another, or otherwise unnecessarily harm another; give a person their just desserts, and be truthful to yourself and others.

Aquinas associated these precepts of conscience with the natural law, holding that the natural law is part of God's eternal law:

Now among all others, the rational creature is subject to Divine providence in the most excellent way, in so far as it partakes of a share of providence, by being provident both for itself and for others. Wherefore it has a share of the Eternal Reason, whereby it has a natural inclination to its proper act and end: *and this participation of the eternal law in the rational creature is called the natural law.* ¹⁶³

III.A. Kant and the Divine Origin of Conscience

The above thinkers presume the existence of God, and attempt to show that the good we know in our conscience comes from God. In the 18th Century, Immanuel Kant looked at the reverse contention. Instead of assuming the existence of God and inferring his presence in our conscience, Kant begins with the moral obligation imposed by conscience and moves to the existence of God. He believed that the way in which the good was known through human consciousness entailed its divine origin:

[&]quot;...[I]t is fitting that we have bestowed on us *by nature* not only speculative principles but also practical principles...[T]he first practical principles bestowed on us by nature, do not belong to a special power but to a special *natural* habit, which we call *synderesis*. Thus *synderesis* is said to incite to good and to murmur at evil, inasmuch as we proceed from first principles to discover and judge of what we have discovered." Aquinas 1947, p. 407 (ST, 1, Q. 79, Art 12). Italics mine.

¹⁶³Summa Theologica I-II, Q. 91, art. 2.

Through the idea of the supreme good as object and final end of the pure practical reason the moral law leads to religion, that is, to the recognition of all duties as divine commands, not as sanctions, that is, as arbitrary commands of an alien will which are contingent in themselves, but as essential laws of every free will in itself, which, however, must be looked on as commands of the supreme Being, because it is only from a morally perfect (holy and good) and at the same time all-powerful will, and consequently only through harmony with this will, that we can hope to attain the highest good, which the moral law makes it our duty to take as the object of our endeavour. 164

The essence of Kant's thought here may be summarized in two statements in his *Opus Postumum*: "In the moral-practical reason lies the categorical imperative to regard all human duties as divine commands;" which causes him to view God as follows: "the concept of God is the concept of an obligation-imposing subject outside myself." Kant moves from an intrinsic awareness of an absolute moral duty (categorical imperative) to an awareness of a morally perfect will which is the source of that absolute duty, and then to an awareness of the Supreme Being who is an "obligation-imposing subject outside [himself]." Notice that this transition of awareness is not a formal set of inferences, but rather an unfolding of the meaning of the absolute duty, which is central to Kant's consciousness.

For Kant, the good (within our consciousness) is embedded within an absolute duty to do that good, which in its turn, is embedded within a divine source of that absolute duty. He cannot conceive of the good without the duty to do it (for what makes the good recognizable is the duty or imperative to do it), and he cannot conceive of an *absolute* duty to do the good without an *absolute* obligation-imposing Subject outside himself. Goods cannot be recognized without the duty to do them, and the *absolute* duty to do them cannot be recognized without an *absolute* obligation-imposing Subject outside ourselves.

This line of thought may seem unsatisfying to a skeptic, but Kant is not trying to prove anything to a skeptic. He is trying to shed light on the implications of the good within our consciousness. For anyone who cares to probe the distinctive quality of the good within himself, God is an inescapable reality. Anyone who probes the qualities of that good will sense the presence of the "obligation-imposing Subject" within it. If we allow the good to reveal itself within us, we will not only know of its divine origin, we will know that the Divine is present to us – at once outside of us and embedded in the absolute duty of the good within us. This presence of the Divine within us makes us transcendental.

Notice that Kant has not constructed a *formal* proof *of* God here, but rather has given an *existential* inference *to* God. He makes no use of deduction or logic, but rather is interested in the existential (concretely experienced) content of his interior recognition of the good. The recognition of the good leads to the absolute duty that makes the good to be recognizable as good, and the absolute duty leads to the Supreme Subject who imposes that absolute duty.

¹⁶⁵ Kant 1960 p. 12.

¹⁶⁴ Kant 2004, p. 233.

¹⁶⁶ Kant 1960 p. 12.

III.B. Newman and the Divine Origin of Conscience

John Henry Newman brought this line of thought to a new level about eighty years later. Though he borrows the general structure of "existential inference" from Kant, he shifts the emphasis from an "obligation-imposing Subject outside ourselves" to an "interpersonal, caring, fatherly authority who is the source of goodness and law." Unlike Kant, who moves from the good to God through two existential inferences, Newman uses five inferences (detailed below) – careful to distinguish his sense of conscience from other natural phenomena.

Unfortunately, Newman did not leave us with a formal rendition of his existential inference to God, but he did leave an unpublished manuscript with a set of organized passages from his sermons and additional notes. Adrian J. Boekraad and Henry Tristram have published an edition of this unfinished work entitled *Proof of Theism*. Since Newman presents his points quite systematically, I will here present only the main movements of the argument with a brief interpretation of his texts. His general argument proceeds as follows. He begins with an overview of his main contention:

Ward thinks I hold that moral obligation is, because there is a God. But I hold just the reverse, viz. there is a God, because there is a moral obligation. I have a certain *feeling* on my mind, which I call conscience. When I analyse this, I *feel* it involves the idea of a Father and a Judge, -- of one who sees my heart, etc. ¹⁶⁸

Newman then proceeds to an assessment of the unity of his consciousness and his existence, which shows that his consciousness is as undeniable as his existence (since one cannot be aware of the latter without being aware of the former). He further shows that he has an *immediate* awareness of his consciousness, and therefore he does not have to deduce it or believe in it. Belief occurs when one is not certain, but Newman is as aware of his consciousness as he is of his existence. He intends to show later that if conscience is intrinsic to his consciousness, then he can be just as immediately aware of his conscience as he is of his consciousness and existence. He then proceeds to a definition of conscience:

Man has within his breast a certain commanding dictate, not a mere sentiment, not a mere opinion, or impression, or view of things, but a law, an authoritative voice, bidding him do certain things and avoid others. I do not say that its particular injunctions are always clear, or that they are always consistent with each other; but what I am insisting on here is this, that it commands, that it praises, it blames, it promises, it threatens, it implies a future, and it witnesses the unseen. It is more than a man's own

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¹⁶⁷I will cite the texts of Newman from the work of Boekraad and Tristram 1961 entitled *The Argument from Conscience to the Existence of God*, and then cite the page numbers from Newman's unpublished paper as given by Boekraad and Tristram.

¹⁶⁸Boekraad and Tristram 1961, p. 103; citing Newman (unpublished), p. 1.

self. The man himself has no power over it, or only with extreme difficulty; he did not make it, he cannot destroy it. 169

For Newman, conscience "commands" (just as for Kant, the categorical imperative imposes duty). He is not so much concerned with whether the specific dictates of the command are always consistent from person to person or from culture to culture, but is impressed by the seeming universality of what is ingredient to conscience's dictates, namely, "command, praise, blame, promise, a future, and the unseen." These characteristics intrinsic to conscience's dictates imply something more than a mere standard or authority. They seem to have an origin outside the self; an origin which is not a matter of human learning (controlled by an inquiring subject), but rather one which is *uncontrolled* by the self. The more we recognize, listen to, and obey this uncontrollable authority, the clearer it and its *dictates* become:

> Conscience implies a relation between the soul and something exterior, and moreover, superior to itself; a relation to an excellence which it does not possess, and to a tribunal over which it has no power. And since the more closely this inward monitor is respected and followed, the clearer, the more exalted, and the more varied its dictates become, and the standard of excellence is ever outstripping, while it guides, our obedience. A moral conviction is thus at length obtained of the unapproachable nature as well as the supreme authority of that, whatever it is, which is the object of the mind's contemplation. 170

It seems that the dictates of conscience and the presence of its authority are somewhat dim in the unpracticed moral agent; but as one listens to and follows these dictates, the dictates themselves and the presence of their source become clearer and clearer to the point of being virtually undeniable. The presence of this authority is so strong that Newman is impelled to make his first inference:

> This is Conscience, and, from the nature of the case, its very existence carries on our minds to a Being exterior to ourselves; or else, whence did it come? And to a being superior to ourselves; else whence its strange, troublesome peremptoriness?...Its very existence throws us out of ourselves and beyond ourselves, to go and seek for Him in the height and depth, whose voice it is. 171

Newman is relating a dimension of his *experience* of conscience, namely, a presence that not only invites us out of ourselves, but draws us and even throws us out of ourselves. It is a presence that calls us to itself – sets us seeking "for Him in the height and depth, whose voice it is." If we respond to this invitation; if we follow the call of the "voice," then its personal presence will become apparent. In an 1855 novel entitled *Callista*, Newman uses the voice of his protagonist to make this point:

¹⁶⁹ Newman 1908, Sermon #64. See also Boekraad and Tristram 1961, p. 114; citing Newman (unpublished), pp. 11-12.

170 Boekraad and Tristram 1961, p. 113; citing Newman (unpublished), pp. 10-11.

¹⁷¹ Boekraad and Tristram 1961, pp. 114-115; citing Newman (unpublished), p. 12.

[God] says to me, Do this, don't do that. You may tell me that this dictate is a mere law of my nature, as is to joy or to grieve. I cannot understand this. No, it is the echo of a person speaking to me. Nothing shall persuade me that it does not ultimately proceed from a person external to us. It carries with it its proof of its divine origin. My nature feels towards it as towards a person. When I obey it, I feel a satisfaction; when I disobey a soreness, -- just like that which I feel in pleasing or offending some revered friend...The echo implies a voice; a voice a speaker. That speaker I love and I fear. 172

In order to clarify and validate this experience, Newman contrasts the experience of conscience to the experience of what he calls "taste" (aesthetic experience), and shows that aesthetic experiences do not call me out of myself in an interpersonal way as does the experience of conscience. If conscience were only intrapersonal (private), it would resemble aesthetic experience, but it is so much more:

Now I can best explain what I mean by this peculiarity of feeling [intrinsic to conscience], by contrasting it with the rules of taste. As we have a notion of wrong and right, so we have of beautiful and ugly; but the latter set of notions is attended by no sanction. No hope or fear, no misgiving of the future, no feeling of being hurt, no tender sorrow, no sunny self-satisfaction, no lightness of heart attends on the acting with beauty or deformity. It is these feelings, which carry the mind out of itself and beyond itself, which imply a tribunal in future, and reward and punishment which are so special. ¹⁷³

He then focuses on these special feelings to distill the *interpersonal* nature of them, revealing that these feelings could not be experienced were it not through a relationship with another person - a person like a father:

[T]he feeling is one analogous or similar to that which we feel in human matters towards a *person* whom we have offended; there is a tenderness almost tearful on going wrong, and a grateful cheerfulness when we go right which is just what we feel in pleasing or displeasing a father or revered superior. So that contemplating and revolving on this feeling the mind will reasonably conclude that it is an unseen father who is the object of the feeling. And this father has necessarily some of those special attributes which belong to the notion of God. He is invisible – He is the searcher of hearts – He is omniscient as far as man is concerned – He is (to our notions) omnipotent....¹⁷⁴

¹⁷² Boekraad and Tristram 1961, p. 116; citing Newman (unpublished), p. 13.

¹⁷³ Boekraad and Tristram 1961, pp. 117-118; citing Newman (unpublished), p. 14.

¹⁷⁴ Boekraad and Tristram 1961, pp. 118-119; citing Newman (unpublished), pp. 14-15.

We may now summarize Newman's thought on this matter. First, he claims that he does not *believe* in conscience any more than he *believes* in his consciousness; he is *directly aware* of them, for consciousness is intrinsic to his awareness of everything – including his own existence, and conscience is intrinsic to his consciousness, presenting him with an awareness of interpersonal relationship and authority. He then describes in five steps how conscience is an *immediate* awareness or experience of a personal God:

- 1. He observes that conscience commands him, and that this command includes praise, blame, promise, a future, and the unseen (and is in *immediate* relationship with his consciousness when it does so).
- 2. He then observes that intrinsic to this "praise, blame, promise, etc." is a concomitant awareness of an *external source* ("Its very existence throws us out of ourselves and beyond ourselves, to go and seek for Him in the height and depth, whose voice it is").
- 3. He then shows that these feelings are not reducible to other kinds of feelings within human consciousness (such as aesthetic feelings): "[The feeling of beauty or ugliness] is attended by no sanction; no hope or fear, no misgiving of the future, no feeling of being hurt, no tender sorrow, no sunny self-satisfaction, no lightness of heart."
- 4. He then shows that there is a *personal* dimension intrinsic to these special qualities of the feelings of conscience: "[T]he feeling is one analogous or similar to that which we feel in human matters towards a *person* whom we have offended; there is a tenderness almost tearful on going wrong, and a grateful cheerfulness when we go right which is just what we feel in pleasing or displeasing a father."
- 5. He then reveals that this personal dimension is not completely similar to those experienced with human beings, but has a divine dimension which is implicit in its supreme authority ("an authoritative voice, bidding him do certain things and avoid others...The man himself has no power over it, or only with extreme difficulty; he did not make it, he cannot destroy it"). When this *supreme* authority is considered within the context of "the voice of a father," it manifests divine attributes ("So that contemplating and revolving on this feeling the mind will reasonably conclude that it is an unseen father who is the object of the feeling. And this father has necessarily the notion of God. He is invisible He is the searcher of hearts He is omniscient...").

The more we recognize, listen to, and follow the urgings of conscience, the more clear and evident both the dictates of conscience and its personal, external, divine source become.

Newman has not formulated an *inferential* argument here; rather, he has rationally unfolded the fivefold dimension of his immediate experience of God in his conscience. He reveals, as it were, a dimension within a dimension within a dimension within the feelings and experience of conscience. What are these dimensions? A divine dimension (invisible, searcher of hearts, omniscient...) *within* a personal dimension (a tenderness almost tearful on going wrong, and a grateful cheerfulness when we go right) *within* special qualities (sanction, hope, fear, misgiving of the future, feelings of being hurt, tender sorrow) *within* the feelings and experience

of conscience (praise, blame, promise, etc.). This total experience of conscience ("the divine dimension within the personal dimension within the special qualities within the feelings and experience of conscience") is intrinsic to his consciousness, and therefore, he is *immediately* aware of it.

Thus, Newman is not making an inferential argument; he is unfolding his own immediate experience of God through his conscience. Newman assures us that the more we listen to and follow our conscience, the more deeply and clearly we will experience the God who both guides and invites us to His life of transcendent and perfect goodness. Once again, we find God present to human consciousness – not only in the numinous experience and our religious intuition of the Sacred, but also in the omniscient, invisible, searcher of hearts who bids us to do good and avoid evil.

IV.

The Cosmic Struggle between Good and Evil – J.R.R. Tolkien and Carl Jung Back to top

We might find it curious that JK Rowling's *Harry Potter* and JRR Tolkien's *Lord of the Rings* are among the most popular book series written for all time. They are also two of the most popular film series worldwide, along with George Lucas' *Star Wars*. Why is it that these three stories are so popular – not only in English speaking countries – but everywhere in the world? Why do they resonate so deeply with so many different groups within international modern culture? Is there something about them that strikes us as not only significant and instructive, but expressive of ultimate truth, reality, and meaning?

The answers to the above questions are likely to be contained within the stories themselves—specifically the *common* elements among the stories. So what are these common elements? The first and foremost is that they concern a cosmic struggle between good and evil – the forces of goodness are pitted against the forces of darkness (evil). The outcome of the struggle will affect the entire world (or universe) – not just the domain in which the battles take place. The "sides" of the cosmic struggle take the same general form. Cosmic goodness is portrayed as an unseen force of providence who interacts with high representatives and heroes through their *free* choices and actions. The high representatives of goodness have freely chosen to help the hero to defeat evil and restore universal goodness – the good wizard (Gandalf) in the Tolkien trilogy, the good wizard Dumbledore in *Harry Potter*, and the Jedi master's Obi-Wan-Kenobi and Yoda in *Star Wars*.

Cosmic goodness is opposed by cosmic evil which is manifest through a lord of darkness - Sauron in the Tolkien trilogy, "Lord Voldemort" in *Harry Potter*, and the Lord of the Sith in *Star Wars*. The dark lord has his high representatives who lead his armies or minions – Saruman in the Tolkien trilogy, Barty Crouch in *Harry Potter*, and Darth Vader in *Star Wars*.

The central protagonist is a **hero** who is unaware of his heroic role throughout his early life – Frodo Baggins in the Tolkien trilogy, Harry Potter in *Harry Potter*, and Luke Skywalker in *Star Wars*. The hero is given a mission by the representatives of cosmic goodness – Gandalf tells

Frodo that he must throw the ring of power into Mount Doom; Harry Potter is told by Dumbledore that he must defeat Lord Voldemort; and Luke Skywalker is told by both Obi-Wan-Kenobi and Yoda that he must defeat both Darth Vader and the Sith Lord. The hero is bewildered about being chosen for this immense task, but nonetheless accepts it as part of the central purpose of his life. He knows that his mission will entail sacrifice, but has no idea what it will really entail. At this point, the three modern myths resemble scores of other myths from various cultures and religions. Joseph Campbell describes the common features of virtually all hero myths as follows:

A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man.¹⁷⁵

The hero is given helpers either by the unseen hand of providence or by the representatives of cosmic goodness – Samwise Gamgee, Strider, Legolas the elf, and Gimli the dwarf in the Tolkien trilogy; Hermione Granger, Ron Weasley, and Ginny Weasley in *Harry Potter*; and Princess Leah, Hans Solo, Chewbacca, R2-D2 and C-3PO in *Star Wars*.

The hero and his assistants must summon the courage and virtue to meet external struggles -- confronting Orc's, the allies of Lord Voldemort, and the armies of Darth Vader. They also have to confront internal struggles, because the forces of evil attempt to bring them into their domain – the ring attempts to bring Frodo into its power, Darth Vader is revealed to be the father of Luke Skywalker, and the forces of evil try to "turn" Harry Potter. Ultimately, because of their courage, fortitude, and belief in their mission, the hero and his company succeed in their mission by defeating the powers of darkness and restoring the world to goodness and light.

What is so appealing about this common story that it rises – in its many manifestations, to the top of best-seller lists? Why do people of all ages watch them multiple times? Some literary critics have "panned" these works as shallow, juvenile fantasies – as merely escapist novels. Yet if these "epic tales" are only an escape, why does every other escapist book or series enjoy a mere fraction of the popularity as these? Is it because English-speaking readers are drawn to Tolkien's esoteric writing style? Probably not – contemporary readers don't seem to be drawn to esoteric writing at all. Is it because JK Rowling wrote for an uncritical audience of children? This is not likely either – because Harry Potter is at the top of the *adult* best-seller list. Is it because of the visual effects in *Star Wars*? Very unlikely – given the fact that there are many other action movies with even better visual effects that haven't scratched the surface of *Star Wars* 'popularity.

What is it then about these three stories that catapults them ahead of other works of great literature, adventure stories, fantasy stories, and escapist novels? In a word, they all fit the technical description of "*myths*." Though a "myth" is fictional, it is not fiction. Fiction concerns narratives that could be factual – "real in this world alone." Though fiction is purely imaginary, it portrays a narrative that *could* be real in the world around us. Myths, in contrast, are not concerned with "*worldly*" narratives, but rather with trans-worldly, transphysical, and spiritual narratives. The objective of myths is to express ultimate truth and meaning, and in order to do

¹⁷⁵ Campbell 1949, p. 23.

this, they must reach beyond the contingent barriers of this world and universe, and reveal the source of ultimate truth and meaning – that is, ultimate *reality*. Not only this, but myths must also reveal how and why ultimate reality connects with this world -- and the people within it.

JRR Tolkien knew well of the power, mystery, and Truth of myths, and he wrote the *Lord of the Rings, The Silmarillion*, and *The Hobbit* to convey this most important dimension of human existence and destiny. Before his conversion to Christianity, C.S. Lewis told Tolkien that "myths were nothing more than lies and therefore worthless, even though breathed through silver." Joseph Pearce reports Tolkien's response as follows:

No, they are not lies. Far from being lies they are the best way — sometimes the only way — of conveying truths that would otherwise remain inexpressible. We have come from God and inevitably the myths woven by us, though they contain error, reflect a splintered fragment of the true light, the eternal truth that is with God. Myths may be misguided, but they steer however shakily toward the true harbor, whereas materialistic 'progress' leads only to the abyss and the power of evil 176

For Tolkien, myths presume that ultimate truth and meaning are not to be found in the natural world. They are based on the presumption that this world is too restricted, conditioned, and contingent to hold ultimate truth and meaning, and so they tell a story that expresses a "creed" about creation, a transcendent reality, gods, heroes, villains, good and evil, virtues and vices; a story about adventure and challenge, darkness and light, wisdom, courage, fortitude, and temperance. Through this "high narrative," myths open upon an interior belief held by the vast majority of people – namely, that there is an ultimate reality beyond this world, that this reality has come into this world to give us transcendent dignity, meaning, and destiny, and to reveal *the way* to draw close to this ultimate meaning. If this is our common belief, then we should not be surprised that myths fascinate and captivate not only our imaginations, but our very souls (the interior domain in which the transcendent makes contact with us).

Myths appeal not only to our intellect, but also to our emotions, intuition, and soul. When we read myths, we not only discover a truth about God, the transcendent, or the supernatural, we *feel* the ultimacy, mystery, and desirability of these transcendent realities; we not only think that transcendent reality has made contact with this world, we *feel* fascinated and enchanted with the place, the way, and the time of that connection; we not only learn how good and evil operate, we *feel* an attraction to the sublime goodness of the transcendent reality and *feel* the repulsion and horror toward evil; we not only learn about the edifying quality of virtue, and the disedifying qualities of vice, we *feel* ennobled by that virtue and disgusted by that vice. Thus, myths fused together metaphysical and meta-ethical content with the feelings of the three dimensions of our transcendent soul (the numinous connection, the religious intuition, and conscience).

So how do myths work? How are they able to appeal to the numinous dimension, sacred dimension, and conscientious dimensions of our soul, as well as our intellect, emotions, and intuitions? They do so through the power of *symbols*, which do more than point beyond themselves – they use worldly images and concepts to make contact with the emotions and

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¹⁷⁶ Tolkien, JRR 2001 p 2.

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intuitions of the soul – with the numinous, the religious, and conscience. Eliade phrases it this way:

The unconscious activity of modern man ceaselessly presents him with innumerable symbols, and each of them has a particular message to transmit, a particular mission to accomplish, in order to ensure or to re-establish the equilibrium of the psyche. As we have seen, the symbol not only makes the world 'open' but also helps religious man to attain to the universal. For it is through symbols that man finds his way out of his particular situation and 'opens him-self to the general and the universal.' Symbols awaken individual experience and transmute it into a spiritual act, into metaphysical comprehension of the world. 1777

Eliade goes on to describe human beings not only as *homo religiosus*, but *homosymbolicus*. Indeed, we could not be *homo religiosus* (in Eliade's sense) without being *homosymbolicus*. Were it not for the way that symbols connect with the numinous, religious, and conscientious dimensions of our soul, we would only be able to *understand* metaphysical *concepts*. We might be able to understand the proof of God's existence from physics or logic (see Appendix I and II, respectively), but we would not *feel* the mysterious, daunting, authoritative, good, powerful, glorious, sublimity of the transcendent reality; we would not be able to praise, worship, adore, desire, and passionately pursue the transcendent reality. We could only think about it as the conclusion to a syllogism or a physical theorem.

The three dimensions of our soul enable symbol to point from the natural world to the transnatural one in intellection, emotion, and desire. They play a mediating role between our natural awareness and our supernatural awareness, natural feelings and supernatural feelings, and natural desires and supernatural desires. But how? How do symbols mediate the natural and supernatural domains?

For Eliade, the *unconscious* activities of our psyche contain and present us with certain images that are susceptible to both natural and supernatural meanings – each of which has its own message, mission, and mediative effect. Before asking where these "two-faced" images come from (pointing at once to the natural and supernatural domains) we will want to look at some examples of them.

Where would we find such "two-faced" images that can have the above mediative effects? Evidently, in religious rituals, events, and dreams. We can divide these symbolic images into two kinds:

- 1. Those that are *learned* from a particular culture or religion, and
- 2. Those that are trans-cultural universal in virtually every culture and religion.

Children learn various culturally and religiously conditioned symbols by hearing their culture's great myths, participating in their religion's rituals, and viewing religious art and architecture. These symbols are appropriated by the unconscious mind and additional ones may

¹⁷⁷ Eliade 1987, p.211.

be generated from the appropriated ones. Once appropriated or generated, these symbols can show up in dreams, and can be used in religious worship and creative work.

Transcultural symbols are even more fascinating than those learned from a particular culture or religion. Such transcultural symbols are frequently called "archetypal" by Eliade, Carl Jung, and their followers. "Archetype" refers to the fact that these symbols are *originative* (from the Greek archē – "source" or "origin"). Eliade concentrates on the transcultural, cross-religious, and trans-mythical dimensions of these symbols, while Carl Jung explores an even more fundamental dimension of them -- namely, that they appear to be "*unlearned*" -- that is, already present in our unconscious from the moment our unconscious comes into being.

Carl Jung (1875-1961) was a Swiss psychiatrist and psychotherapist who started the school of analytical psychology. Though a student of Sigmund Freud, he disagreed with him, particularly in the area of empirical reductionistic method, believing that the psyche, particularly the unconscious – is beyond strict materialism. Jung believed that the unconscious dimension of the human psyche comes into the world with "archetypes," presumably from heredity. Since archetypes affect the dreams of children and adults in similar ways in virtually every culture, Jung believed that they came from a *common* heritage refined through thousands of generations. He calls this trans-generational common heritage "the collective unconscious." Since many of the archetypes are found not only in dreams, but also in myths, a brief look at Jung's theory will prove helpful.

For Jung, archetypes are not images or symbols per se, they are the *potential* for symbols (that is, the potential that translates an image into a symbol when actualized in the conscious mind). Since they are "potentials" in the *unconscious*, they can only be *deduced* from dreams, rituals, myths, and art. These unconscious potentials have meanings that are essential for knowing ones place in the world and the cosmos, ones meaning in this life and the next, and ones relationships with others and God. When these unconscious potentials surface within the conscious psyche, they attach themselves to images, enabling these images to convey the archetypes' meaning.

Some prevalent archetypal figures are great mother, father, child, devil, god, wise old man, wise old woman, the trickster, and the hero. ¹⁷⁸ We can see several of these archetypes within ancient and contemporary myths (such as those of Tolkien, Rowling, and Lucas).

The hero is the key archetype of contemporary myths, but the archetypes of God, the devil, the wise old man, and the trickster are also prevalent. Notice that there are no prescribed symbols for these archetypes – the hero can come from any culture, the God archetype can be manifest as the unseen hand of providence or as "the good side of the force." The archetype of the devil or evil can be manifest in the various images of the lord of darkness and his minions, and the trickster can be manifest as Gollum or an imposter.

As noted above, Jung held that these archetypes are present in virtually every person in virtually every culture around the world from the moment our unconscious begins its activities. This suggests that the archetypes have not been learned, but are present to us — almost as a part of

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¹⁷⁸ Carl Jung 1981.

our "human nature." This is difficult to explain in any conventional way, and Jung ultimately decided that they were inherited – just as the content of animal instincts can be inherited from previous generations.

This may be a stretch for some readers, so we need to ask if there is a way to verify Jung's theory. The strongest verification comes from the presence of the archetypes in the dreams of young children. If the archetypes appeared only in the dreams of adults, we might be able to explain them as learned from religion or culture, but it is much more difficult to explain them in the dreams of young children who had little or no exposure to cultural and religious symbols. Children do not have to learn about the "boogey man" (an image of the archetype of the devil or evil); they do not have to learn about the hero and his journey, or about a good "higher power" (a God archetype). If these archetypes are present to children at the time that their unconscious psyche begins its activities and they do not learn them from their culture, religion, or parents, then where did they come from, and why do children of virtually every culture and religion use the same archetypes?

Furthermore, young children not only use the same archetypes, they associate similar feelings with those archetypes from culture to culture. For example, the archetype of evil produces horror (as distinct from fear), ¹⁷⁹ the archetype of God produces numinous feelings – mysteriousness and goodness, uncontrollableness and fascination, and the archetype of the hero produces feelings of nobility and dignity. But how can this occur in young children in virtually every culture? If there is not something akin to the collective unconscious, then the archetypes (and their associated feelings) would appear to be inexplicable.

Jung's explanation of the archetypes as coming from heredity is plausible, but it leaves open the question of where the archetypes of the first generation came from. Obviously the first generation did not inherit either the metaphysical and ethical content of the archetypes, or the feelings associated with those contents. So the archetypes must have originated from another source. I would submit that one plausible source is the three dimensions of the soul (the numinous experience, religious intuition, and conscience). In my view, the first human being had a soul (as described above), which is precisely what made that person to be human. This first human being might have created the first archetypes from the metaphysical and ethical contents and feelings arising out of his soul. The numinous contents and feelings could have given rise to the God archetype; the religious intuition could have given rise to the hero archetype; the contents and feelings of conscience combined with the numinous feelings could have given rise to the *goodness* of the God archetype, and to the darkness and evil of the devil archetype. The combination of these archetypes could have given rise to the journey archetype, and so forth.

This gives rise to the question of whether the archetypes are inherited. Why would they need to be? If the first human being could connect the contents and feelings of the three dimensions of the soul with various archetypes, why wouldn't every subsequent generation of human beings be able to do the same? In my view, if one believes in a soul (and the above three

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¹⁷⁹ Recall Otto's distinction between fear and horror. The former occurs when one's life is threatened by a danger – adrenaline is released, our heart rates increase, our faces become flush, and we move quickly. Alternatively, horror occurs in the presence of something spiritual, like a ghost, or an evil spirit. This produces precisely the opposite emotions of fear. We feel a sense of cold, our hearts slow down, the blood drains from our face, and we freeze.

dimensions of it), this explanation would be as plausible as Jung's hereditary explanation. Speaking personally, I had the contents and feelings of the numinous experience, religious intuition, and conscience from a very young age, and I have no difficulty believing that *I* associated these transcendent contents and feelings with archetypes and images. I don't think I had to inherit my images of God or the boogey man from my parents (or from all previous generations of humanity); I think they could have arisen at the very moment the three transcendent dimensions of my soul began to manifest themselves.

It may be thought that this explanation does not explain the cross-*cultural* similarities among the archetypes as well as Jung's explanation. Jung's explanation is straightforward – we received the archetypes from a common ancestor and a common generational trajectory from that common ancestry, meaning that every person in every culture has a common source of the archetypes. However, I believe my explanation also provides a common source of the archetypes – namely, the same transcendent reality working through the same three dimensions of the soul in every person in every culture. My explanation simply shifts the common source of the archetypes from a common inherited memory to a common transcendent reality.

The above analysis provides yet another clue to our transcendent reality. For if we do not have a soul through which a transcendent reality has imparted numinous feelings, religious intuitions, and the contents and feelings of conscience, how can the appearance of the archetypes in the dreams and art of young children in virtually every culture be explained? If the above three dimensions of the soul were not present in the first human being, how could that first human being have transmitted the archetypes to subsequent generations (Jung's explanation)? Similarly, if we did not inherit the archetypes from a common ancestor, and the three dimensions of the soul are not present in all human beings, how could any of us use the archetypes in our dreams today (my explanation)?

It does not matter whether Jung's or my explanation is correct, the *absence* of a soul (and a transcendent reality connected with that soul) makes the cross-cultural presence of the archetypes in young children very difficult, if not impossible, to explain. This is yet another clue to the presence of a transcendental reality within us.

After that long digression, we must now return to the question we posed about the attractive and fascinating qualities of myths. So why are the above three contemporary "hero myths" so overwhelmingly popular? Why do they hold out an endless source of fascination for both young people and adults? The above analysis gives us a coherent explanation. The three dimensions of our soul provide the contents and feelings behind all the archetypes and symbols of the hero myth. The numinous connection provides not only an awareness of a transcendent, mysterious, daunting, fascinating, good "wholly Other," but also with feelings of fear and fascination, mystery and desire, creatureliness and care.

Our awareness and attraction to this transcendent reality stands behind our archetype of the unseen sacred and providential deity. Similarly, our religious intuition incites a belief that the sacred reality has broken into the world and has sanctified at least a part of it. These thoughts and feelings stand behind the division of the world into sacred and profane as well as the belief that the sacred is present in the world (often represented by the archetype of the wise old man). The

content and feelings of conscience can be superimposed on the division of sacred and profane, turning it into a division between cosmic good and cosmic evil. The religious intuition can give rise to the archetype of the hero (who is connected to God by his own free will and has a mission of representing the deity in the world). The feelings of conscience can give rise to the goodness of some people and the evil of others. When numinous feelings, religious feelings, and feelings and contents of conscience are combined, we can see not only the archetypes, but the rudimentary sketch of the hero myth, and we can associate this hero with ourselves, and the hero's journey with our lives (or some special mission or task within them).

Myths are attractive and fascinating because they draw us into our numinous feelings and our religious intuition, they tell us about the truth of ourselves – that we are called to be heroes (or helpers of heroes) in a most noble mission – the defeat of cosmic evil and the restoration of cosmic good. Myths tell us that our lives are not purely mundane, but rather involved in matters of the highest consequence – eternal consequences. Though we may look at the hero as distinct from ourselves, we cannot help but think that the hero's challenges are in some way our challenges; his victories, our victories; his virtues, the virtues to which we aspire; his dangers, the dangers that confront us; and his internal struggles with vice, the ones that could befall us.

The hero is a pure form – an idealized symbol – and thank goodness for it because we can admire him from afar, hope in his success without directly confronting his struggles and dangers - all the while seeing ourselves in his reflection, and knowing that there is something more to life than the merely mundane. The hero is immersed in a transcendent mystery in an obvious way – in a transcendent mission in an obvious way, and in the nobility of a cosmic struggle in an obvious way. Yet enmeshed in his pure form is the subtle reminder that we too share in his experience of transcendent mystery, transcendent mission, and noble endeavor. Tolkien knew well what he wanted to convey in his hero myth *The Lord of the Rings*:

[myths are] the best way — sometimes the only way — of conveying truths that would otherwise remain inexpressible. We have come from God and inevitably the myths woven by us, though they contain error, reflect a splintered fragment of the true light, the eternal truth that is with God.

Our attraction to and love of myths comes from within us – or better, from the presence of God within us – inviting us into His noble mission, into Himself, and into His destiny.

V. Conclusion An Initial Conclusion about "the Soul" – Back to top

We have seen three ways in which the transcendent reality touches us:

1. The numinous experience – in which the numen presents itself as mysterious, daunting, uncontrollable, fascinating, good, and empathetic, and invites us into itself by inciting our interest and desire.

- 2. The religious intuition -- in which we sense that the sacred transcendent reality has broken into the world, which invites us to draw closer to the sacred reality through sacred place, ritual, and myth.
- 3. Conscience through which an omniscient, invisible, searcher of hearts bids us to do good and avoid evil.

These three dimensions of contact with transcendent reality invite us and bring us into the sacred and spiritual domain.

These three connections with the Sacred-Transcendent Reality are not static; they are interrelational and dialogical. Otto's numinous experience includes a dimension of empathy and invitation within the feeling-contents of fascination, desire, goodness, care, and comfort. Eliade's religious intuition includes a dimension of sanctification by the Transcendent Reality within the desire for the sacred, and Newman's conscience includes an experience of an omniscient invisible searcher of hearts within the feelings of guilt, hope or fear, misgiving of the future, being hurt, tender sorrow, sunny self-satisfaction, and lightness of heart. When the Transcendent Reality makes itself present to us, it manifests concern and care for us, calls us into a deeper relationship with itself, and offers us guidance and sanctification in our life's journey. Those who open themselves to the "transcendent presence within" will find not only the mysterious and sacred "wholly Other," but also a personal, empathetic, and loving being passionately interested in bringing us to the fullness of life through itself.

Chapter Four Human Intelligence versus Artificial and Animal Intelligence

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This chapter will be divided into two parts:

- 1. Human intelligence VS Artificial intelligence
- 2. Human intelligence VS animal intelligence

I.

Human Intelligence versus Artificial Intelligence

There are four major differences between human and artificial intelligence and it is highly unlikely that we will be able to bridge this gap on any of the four levels into the indefinite future. Each will be discussed in turn below:

- 1. The five transcendental desires manifesting our awareness of perfect truth, love, justice/goodness, beauty and hope.
- 2. The formulation of conceptual ideas (abstract interrelational ideas that can be used as predicates and objects).
- 3. Self-consciousness, experiencing of experiencing, presence to self, and the experience of inwardness (David Chalmers' hard problem of consciousness).

4. Transalgorithmic mathematical thinking (manifest by Gödel's theorem).

We have already discussed one obvious difference between human and artificial intelligence—the presence of the five transcendental desires manifesting our awareness of perfect truth, love, justice/goodness, beauty and home. As we showed, the source of these five kinds of transcendental awareness must be God (perfect truth, perfect love, perfect justice/goodness, perfect beauty and perfect being themselves). For a proof of this, see above—Chapter Two as well as Volume 1 – Chapter Three. Since we do not have the capacity to give artificial intelligence these five kinds of transcendental awareness and desire (because only God can do this) we can assume that computers will never be enlightened in this way.

There's a second difference between human and artificial intelligence—the capacity to formulate conceptual ideas. In Section II below (Human Intelligence versus Animal Intelligence), we will discuss the need for heuristic notions in formulating conceptual ideas (abstract ideas which are interrelational and can be used as predicates and objects). We will there show that animals do not have conceptual ideas (because they cannot pass Chomsky's syntax test), showing that they do not have the heuristic notions needed to ask questions and formulate these conceptual ideas. It is unlikely that *artificial* intelligence will ever have the capacity to formulate conceptual ideas, because we will not be able to give heuristic notions to them. Why? If Bernard Lonergan is correct in asserting that the origin of all heuristic notions is what he calls "the notion of being" (the notion of complete intelligibility), and the origin of that notion must be "being through itself" or "complete intelligibility itself," then God alone (who is the only reality that exists through itself and is an unrestricted act of thinking) can cause this notion. Since this notion is the origin of all other heuristic notions, then only God can be their ultimate source. For an explanation of this see Section II below on this topic.

There is a third difference between artificial and human intelligence—self-consciousness. The recent work of David Chalmers, called "the hard problem of consciousness" brings this to the fore. He notices that there are various dimensions to the inwardness of subjective experience that cannot be replicated and therefore cannot be produced by physical processes alone. Phenomena such as delight, appreciation, enjoyment, awe, and wonder, manifest not only an experience of the outward world, but an experience of inwardness—an experience of experiencing. As will be explained in Chapter 5 below, there is significant reason to believe that the inwardness of human experience — our ability to experience ourselves experiencing — has features that are beyond the power of physical processes — both classical and quantum processes. As such, they cannot be replicatable through any form of artificial intelligence.

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David Chalmers, 1995 "Facing Up to the Problem of Consciousness" Journal of Consciousness Studies 2 (3): pp 200-219. See also Chalmers 1997. The Conscious Mind: In Search of a Fundamental Theory. (London: Oxford University Press). See also Chalmers, 2010. The Character of Consciousness (Philosophy of Mind). (London: Oxford University Press).

There is a fourth significant difference between artificial and human intelligence manifest in Gödel's theorem. The famous German mathematician Kurt Gödel first formulated the proof of the non-rule based, non-algorithmic, transcendent nature of human intelligence in 1931. It was revised on several occasions by John R. Lucas and by the eminent physicist Roger Penrose. In brief, Gödel showed that there will always be unprovable propositions within any set of axiomatic statements in arithmetic. Human beings are able not only to show that consistent, unprovable statements exist, but also to prove that they are consistent by making recourse to axioms *beyond* those used to generate these statements. This reveals that human thinking is not based on a set of prescribed axioms, rules, or programs, and is, by nature, *beyond* any program. Stephen Barr, summing up the Lucas version of Gödel's argument, notes:

First, imagine that someone shows me a computer program, P, that has built into it the ability to do simple arithmetic and logic. And imagine that I know this program to be consistent in its operations, and that I know all the rules by which it operates. Then, as proven by Gödel, I can find a statement in arithmetic that the program P cannot prove (or disprove) but which I, following Gödel's reasoning, can show to be a true statement of arithmetic. Call this statement G(P). This means that I have done something that that computer program cannot do. I can show that G(P) is a true statement, whereas the program P cannot do so using the rules built into it. ¶ Now, so far, this is no big deal. A programmer could easily add a few things to the program – more axioms or more rules of inference – so that in its modified form it can prove G(P). (The easiest thing to do would be simply to add G(P) itself to the program as a new axiom.) Let us call the new and improved program P'. Now P' is able to prove the statement G(P), just as I can. ¶ At this point, however, we are dealing with a new and different program, P', and not the old P. Consequently,

¹⁸¹ See Nagel 1974, pp 435–50.

¹⁸² Gödel 1931, pp. 173-198.

¹⁸³ Lucas 1961, p. 120. Lucas 1970, pp. 149-151. Lucas 1990.

¹⁸⁴Penrose 1989. Penrose 1994. Penrose 1996, p. 23.

assuming I know that P' is still a consistent program, I can find a Gödel proposition for *it*. That is, I can find a statement, which we may call G(P'), that the program P' can neither prove nor disprove, but which I can show to be a true statement of arithmetic. So, I am again ahead of the game. ... This race could be continued *forever*. ¹⁸⁵

Since human beings can *indefinitely* prove propositions that are not provable through the axioms from which they were derived, it would seem that human intelligence is *indefinitely beyond* any axiomatic or program-induced intellection.

Gödel's proof shows that human thinking is not only *always* beyond axioms, rules, and programs (to which artificial intelligence is limited), but also capable of *genuinely originative creativity* (that is, capable of thinking without deriving from or making recourse to any prior axioms, rules, or programs).

How is this possible? We must have some kind of tacit awareness of mathematical intelligibility as a whole-- a sense of how all the parts relate to each other as a whole. With this remarkable general sense of mathematical intelligibility we can develop mathematics beyond the total implications of all past algorithms—we can be genuinely creative. This is precisely what has occurred throughout the history of mathematics—from the time of Euclid, Pythagoras and Archimedes to the present.

Where did our general notion of mathematical intelligibility come from? It does not come from the world of concrete space-time particularity (because the general notion of mathematical intelligibility is beyond all space-time particularity). Similarly, it does not come from physical processes in our brain (because these processes, too are restricted to space-time particularity). It seems that we have only one option left— it must be an integral part of our innate transcendental horizon of complete intelligibility, which allows us to have a tacit awareness of perfect truth (see above—Chapter Two—Perfect Truth). Recall that this transcendental horizon of complete intelligibility presents us with a tacit awareness of everything about everything—and the general ways in which everything can be related to everything. It is the source of all heuristic notions—what Lonergan calls the "notion of being." He describes it as follows:

[T]he notion of being penetrates all cognitional contents. It is the supreme heuristic notion. Prior to every content, it is the notion of the to-be-known through that content. As each content emerges, the 'to-be-known through that content' passes without residue into the 'known through that content.' Some blank in *universal anticipation* is filled in, not merely to end that element of anticipation, but also to make the filler a part of the anticipated. Hence, *prior* to all answers, the notion of being is the notion of the *totality* to be known through all answers. ¹⁸⁶

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¹⁸⁵ Barr 2003, p. 214. Italics mine.

¹⁸⁶ Lonergan 1992. *Insight*, pp. 380-381.

All forms of artificial intelligence are based on prescribed rules, algorithms, axioms, and programs. ¹⁸⁷ If Lonergan's implicit solution to Gödel's Theorem is correct, then no artificial (machine) intelligence will ever be able to replicate human questioning and creativity – let alone our quest for complete and unrestricted intelligibility. Artificial intelligence has no consciousness of a horizon of greater intelligibility – let alone a horizon of complete and unrestricted intelligibility, and human beings will not be able to create such a horizon for it because any such horizon is beyond the domain of individuation and space-time particularity which means it is beyond the domain of macroscopic and quantum physics. Furthermore, human beings will never be capable of creating a horizon of *complete and unrestricted* intelligibility because such a horizon can only be created by "complete and unrestricted intelligibility Itself" (and unrestricted act of thinking—God). We will never be able to create artificial replicas of our own free and creative inquiry because we are mere restricted beneficiaries of a capacity given to us by a truly unrestricted intelligence.

II. Human Intelligence versus Animal Intelligence — Back to top

There has been considerable speculation about higher primates having similar intellectual and linguistic capabilities to humans. Some have conjectured that the difference between humans and higher primates is only a matter of *degree*, but the *essential* cognitional activity is the same. If these thinkers are correct, it would mean that higher primates have a tacit awareness of the supreme heuristic notion of being, and are therefore, transcendent in the same way as humans. Is there any way of determining whether this is the case? As a matter of fact, there is.

The critical distinction between perceptual ideas (picture images of individuals) and conceptual ideas (relational ideas which can abstract from individuality and space-time particularity) dovetails felicitously with a behavioral test developed by the well-known philosopher of language, Noam Chomsky. This test can be applied to the socio-linguistic behavior of higher primates. A quick explanation of this reveals that human beings are categorically different from primates, not only in their linguistic capabilities, but also in their capacity to formulate conceptual ideas in language, logic, mathematics, natural science, social science, and philosophy. There is nothing in the socio-linguistic behavior of higher primates — even the best trained ones — that indicates the presence of conceptual ideas, heuristic notions, or a supreme heuristic notion. Primates appear to be limited to the domain of perceptual ideas — and linguistic

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¹⁸⁷ Currently all forms of artificial intelligence can be replicated by a universal Turing Machine which is bound by prescribed rules, axioms, algorithms, and propositions. "A Turing Machine" is a hypothetical device that models the basic mechanical, logical, and computational properties intrinsic to every computer. Alan Turing (1936) described this basic model which has helped computer scientists and philosophers to theorize about both the potential and limits to mechanical intelligence (logical and computational processing through scanning and binary circuitry). Turing's model has been sufficiently generalized to replicate any known form of mechanical intelligence, and it is called, "a universal Turing Machine." It is theoretically possible to have non-Turing forms of machine intelligence, but these will not be able to escape the requirement for prescribed rules, axioms, algorithms, and propositions, because the only way to move beyond them is to be tacitly conscious of a horizon of higher intelligibility (and if Lonergan is correct, a horizon of *complete and unrestricted* intelligibility). Such a horizon is beyond all physical and mechanical processes – including quantum ones, for it cannot be limited by individuation and space-time particularity (see the explanation above in Sections IV&V.A). See Spitzer 2010 (b) pp 5-27 – particularly the response to R. Penrose & S. Hameroff (pp 19-23).

signs that refer to those perceptual ideas. We shall now consider each of these points in more depth.

With respect to perceptual and conceptual ideas, consider the following. Look at the previous paragraphs in this chapter. What percentage of the words in those paragraphs have individuated referents—referents that are susceptible to pictorial imaging? I would wager they are less than three percent. So what are the referents for the other ninety-seven percent of our words? They refer to *relationships*—relationships among pictorial images, relationships among relationships, and the ways in which things and ideas are related. Perceptual ideas are pictorial images—individuated images coming from direct experience or images derived from direct experience. In contrast, conceptual ideas have *relational* referents—which are not derived from direct experience, but from relating direct experiences and other conceptual ideas to one another.

Throughout our educational process we learn how to complexify these relationships among things and ideas. First, we relate perceptual ideas to one another—ideas that have pictorial referents – such as "cat" or "tree" or "man." Then we relate conceptual ideas to one another (such as "noun," "verb," "too," and "add"). We can move to higher levels of abstraction – relationships among relationships among relationships, etc. This can be done in the domain of grammar, logic, mathematics, the natural sciences, etc.

How do we create these relationships among perceptual and conceptual ideas? There must be some *context* through which to organize them – something like a map or a clock or a table of genus and species – which could provide a background or superstructure through which ideas can be related in an organized way. Each of these superstructures has high-level ideas intrinsic to them which determine the way in which ideas are organized – for example, "here-there-right – left-center" stand behind the question "Where?" "Earlier-later-past-present-future" stand behind the question "When?" "Causation-possibility-necessity-contingency-actuality" for the question stand behind the question "Why?"

As implied above, the heuristic notions and high level concepts standing behind each kind of question derives its meaning from the supreme heuristic notion of "the complete intelligibility of reality." Why? Because the supreme heuristic notion of complete intelligibility is what enables us to see the deficiencies and imperfections in our current knowledge, causing us to inquire about the next step beyond it. Recall that this supreme heuristic notion is the "tacit awareness of everything to be known"—and the notional anticipation of achieving it. When we contrast this universal anticipation with our current knowledge—we become aware that there are blanks to be filled in—and we desire and seek to do so. This universal anticipation stands behind every question, and every question stands behind the heuristic notions and high level conceptual ideas used to relate all other ideas and images to one another.

We are now in a position to make a judgment about animal intelligence (specifically the intelligence of higher primates). Do higher primates form conceptual ideas? Do they transform perceptual ideas into conceptual ideas through interrelationships within superstructures organized by heuristic notions? Noam Chomsky gave the first linguistic test to answer these questions, and on the basis of it, held fast to the belief that they do not. Chomsky realized that certain words in a sentence could have direct pictorial referents, but was certain that the *syntax* of a sentence could

not be grasped pictorially. It can only be grasped by understanding relationships among ideas. A simple test of this would be to grasp the meaning of subject and object in the word order of a sentence – for example "dog bites man" versus "man bites dog." "Be Even though one could grasp "dog," "bites," and "man" through perceptual ideas, one cannot grasp the difference between subject and object in a sentence's word order without some conceptual (relational) ideas. ¹⁸⁹Do higher primates grasp the syntactical difference between subject and object as small children do who laugh at the curious thought of a man biting a dog? Contemporary research indicates that they do not.

There is considerable evidence that vertebrates generate perceptual ideas, manifesting perceptual intelligence. For example, animals can relate perceptual images, such as a rabbit and a tree, to one another spatially (as well as to themselves). Notice that what the animal *perceives* is an individual object or image – it is a picture in the animal's consciousness. So does the animal go beyond relating perceptual ideas in space and time? Do they implicitly understand the most rudimentary implications of grammar communicated by word order? If they do not, then we can be sure that they do not grasp elementary conceptual (relational) ideas – and that they are restricted to the domain of perceptual ones.

Is *perceptual* intelligence sufficient for elementary language? Researchers have shown that it is. For example, primates have the ability to associate signs (such as those from American Sign Language) with their perceptual (picture) thoughts. However, these associations appear to have no other purpose than to name or identify specific things (such as Joe the trainer, or a banana, or a perceptual action like running or biting) to satisfy biological opportunities (such as obtaining food or shelter) or to communicate biological dangers (such as the approach of a predator). For example, a chimpanzee can be taught to use sign language to communicate a need for food or even a warning about danger, but cannot be trained to use language to say something *about* something (which would require syntactical control – the intelligible use of predicates and objects).

One of the more controlled experiments in this regard was carried out by Allen and Beatrix Gardner in 1967 (Project Washoe) in which a female chimpanzee named Washoe was raised in a very familial human environment with affection and other human bonding qualities. ¹⁹⁰ According to the Gardners, Washoe was able to learn 350 words of American Sign Language (which exceeds the capacity of virtually every other chimpanzee subjected to this kind of training – operative behavioral conditioning). The Gardners seemed to have achieved other successes –

¹⁸⁸ Chomsky was primarily concerned with the operation of *innate* structures for *syntax* capable of *creatively* combining and adapting intelligible phrases from words and signs. Control over syntax (e.g., understanding the difference between "dog bites man" and "man bites dog") is an essential test of this capability. See Chomsky 2007. Chomsky was highly critical of B.F. Skinner's functionalistic (behavioristic) explanation of language which implied commonality between animal linguistic functions/behaviors and human linguistic functions/behaviors, because it ignored this central test of creative combining, organizing, and adapting of words and signs manifest in syntactical control. See Chomsky 2007, 1971, and 1967.

¹⁸⁹Chomsky held that humans can both create and understand these syntactical differences (in the ordering of words within an expression) because they can apply transformation rules to universal core patterns, and therefore, do not need to be trained to understand and use every expression. It does not matter whether one accepts Chomsky's whole theory of human linguistic creativeness, because his syntactical control test for the presence of conceptual intelligence in animals is still valid whether or not one accepts his explanation of how syntactical control occurs. ¹⁹⁰Gardner, Gardner, and Cantfort 1989.

Washoe seemed to be able to adapt some of the learned signs for other uses, and also taught other chimpanzees some of the signs she had learned.

The Gardner's results were challenged by Herbert Terrace who indicated that the Gardners did not have a rigorous methodology to assess Washoe's use of language beyond codes or naming associated with biological opportunities and dangers. Furthermore, there was no real attempt to carry out Chomsky's syntactical control test in a rigorous way.¹⁹¹

Terrace decided to conduct a more controlled test of the Gardner's claims at Columbia University in 1974, because he believed that many of their claims were based on misinformation from the chimp. So Terrace designed experiments that would test specifically for syntactical control and understanding within a chimp's use of sign language. ¹⁹² Terrace used a famous chimpanzee named Nim Chimpsky (playing off the name of Noam Chomsky) in a much more controlled behavioral environment, which yielded more modest results than the Gardners. Though Nim was able to master 125 signs (significantly less than the Gardners' claims about Washoe), and could be trained to use those signs precisely as his trainer indicated, there was no evidence that Nim had any syntactical awareness, understanding, or control over the use of his signs. Terrace, et al, summarized their results as follows:

...[U]nless alternative explanations of an ape's combinations of signs are eliminated, in particular the habit of partially imitating teachers' recent utterances, there is no reason to regard an ape's multisign utterance as a sentence. ... For the moment, our detailed investigation suggests that an ape's language learning is severely restricted. Apes can learn many isolated symbols (as can dogs, horses, and other nonhuman species), but they show no unequivocal evidence of mastering the conversational, *semantic*, or *syntactic organization* of language. ¹⁹³

Though the Gardners claimed that Nim could have learned more signs had he been brought up in a more familial environment, no subsequent experiment with higher primate language has been able to pass Chomsky's syntactical test. And so it seems that Chomsky's claims about exclusively human syntactical control over language remains unrefuted.

Inasmuch as syntactical understanding and control is foundational for all higher uses of language (such as using subjects, predicates, and objects to say something *about* something, as well as to formulate mathematical, scientific, or other theoretical expressions), it seems that human beings are the only species of animals having the creative use of language (to create and understand expressions that they have not been trained specifically to use or understand). This further implies that human beings are the only species capable of higher order conceptual ideas and language (going beyond perceptual ideas and language).

Several other philosophers have developed tests to assess intelligence in animals (particularly higher primates and dolphins). The most famous of these were formulated by Donald

¹⁹¹ H.S. Terrace, Petitto, Sanders, and Bever 1979, pp. 891-902.

¹⁹² H.S. Terrace, Petitto, Sanders, and Bever 1979, pp. 891-902.

¹⁹³ H.S. Terrace, Petitto, Sanders, and Bever 1979, pp. 900-901.

Davidson in the 1980s and 90s – the intentionality test, ¹⁹⁴ the argument from holism, ¹⁹⁵ and what might be termed the "belief test." ¹⁹⁶ Though these arguments are contested – including Davidson's final and main argument (the belief test) – his analysis of the link between thought and language is quite instructive, and can be used to provide a deeper insight into the differences between human and animal intelligence (beyond Chomsky's syntactical test).

There are other approaches to the absence of conceptual intelligence in animals, the most important of which are forwarded by Paul Moser, ¹⁹⁷ Jonathan Bennett, ¹⁹⁸ John Searle, ¹⁹⁹ and José Bermúdez. ²⁰⁰ These confirm and extend the findings of Chomsky, Terrace, and Davidson, implying a categorical difference between human and animal intelligence. In view of this, humans seem to be the only species capable of generating conceptual ideas and therefore of having pre-experiential awareness of heuristic notions and structures. This implies that humans are the only transcendental species tacitly aware of a horizon of complete and unrestricted intelligibility. As such, they are the only species capable of genuine creativity of new ideas, of surpassing the "Gödel limit to machine intelligence," and communication through complex syntax and semantics.

Chapter Five Self-Consciousness – Back to top

Introduction

In addition to the evidence of near death experiences, heuristic notions, and Gödel's Theorem, another indication of transphysical consciousness has emerged in contemporary philosophy championed by David Chalmers (1995, 1997 and 2010), and Thomas Nagel (1974 and 2012), ²⁰¹ – what has been variously called "the problem of personal experience," "subjective

There is an excellent summary of these philosophical arguments by Robert Lurz (a well-known researcher in the area of animal intelligence) which may be found in the Internet Encyclopedia of Philosophy (http://www.iep.utm.edu/animind/#SH1c).

²⁰¹Though both thinkers advocate for a strong distinction between consciousness and physical processes, they interpret this distinction in different ways. Chalmers is the least physicalist (advocating for panpsychism or panprotopsychism to explain human consciousness). Nagle does not go this far but maintains a hard distinction between the inwardness and self-possession of consciousness versus the outwardness and non-self-possession of physical processes. John Searle (1983, 1991, 1994, and 2001) is sometimes associated with the hard problem of consciousness, but he does not draw any *ontological* conclusions from his *phenomenal* distinction between "human first person subjective experience" and "objective particles in fields and force." He simply (an inexplicably) combines them indicating that consciousness is a real *subjective* experience caused by the *physical* processes of the brain. Though he makes a phenomenal distinction between subjectivity and objectivity, he is an ontological physicalist. As will be explained below, Chalmers' conclusion about the *ontological* distinction between consciousness and physical processes is more explanatory (and realistic) than Searle's simple aggregation of them.

¹⁹⁴ Davidson 1984, pp. 155-179.

¹⁹⁵ Davidson 1985.

¹⁹⁶ See Davidson 1997, pp. 7-17.

¹⁹⁷ Moser 1983, pp. 221-226.

¹⁹⁸ Bennett 1964/1989.

¹⁹⁹ Searle 1994, pp. 206-219.

²⁰⁰ Bermúdez 2003.

presence," "self-possession," and "self-consciousness." These are all variations of a common problem — "Can the subjective component of human experience be explained by an aggregation of physical (neuro-biological, chemical-mechanical) processes in the brain?" — Or is there something about subjective experience that will always elude — be above — physical processes? If the latter can be demonstrated, then it will show once again that human beings — specifically human self-consciousness, must be more than the physical brain — it must be transphysical and even transcendental (indicating a unique transphysical soul).

I. The Hard Problem of Self-Consciousness – Back to top

As noted above, David Chalmers phrased his famous hard problem of consciousness in this way:

Why is it that when our cognitive systems engage in visual and auditory information-processing, we have visual or auditory *experience*: the quality of deep blue, the sensation of middle C? How can we explain why there is something it is like to *entertain* a mental image, or to experience an *emotion*? It is widely agreed that experience arises from a physical basis, but we have no good explanation of why and how it so arises. Why should physical processing give rise to a rich *inner life* at all? It seems objectively unreasonable that it should, and yet it does.²⁰²

Each of the italicized words in the above passage points to a quality that physical processes cannot seem to produce – a subjective quality of "appreciation" or "enjoyment" or "amazement" or "awe." These "experiences" do not happen only in the aesthetic domain – e.g. the appreciation of color, visual form, and music, but also in the domain of cognition itself – solving a puzzle, wanting to know, enjoying mathematical symmetry, fascination with scientific discovery, etc.

Chalmers works backwards from what he calls "the easy problems of consciousness" (i.e. any phenomenon that can be explained by an aggregation of physical processes) to the "hard problem of consciousness" (i.e. any phenomenon – such as the previously mentioned experiences which do not seem to be able to be explained by an aggregation of physical processes).

The problem with describing *inner* experiences by means of physical processes is that physical processes have no "inner sense" – that is, no "presence to self" – "no awareness of self." Physical realities have no "inwardness" – no "interior depth" – but only "outwardness" which can interact or be aggregated with other physical ("outward") realities.

Thomas Nagel looks at it the other way around – from the vantage point of physical processes. He notes that physical processes are "objective" – they can be *shared* in a consistent way with anyone who has the means to observe them, but subjective "experiences" – "inner

²⁰² Chalmers 1995, p. 200 (*italics* mine).

appreciation and enjoyment" – cannot be shared with anyone. They are un-shareable because the "inwardness" of subjective experience cannot be objectified – "made outward." ²⁰³

Some readers might be thinking that the above analysis applies only to classical physics (deterministic mechanical physics), but not to quantum physics (in which information can be shared with an entire system – even incredibly large ones – simultaneously). This question will be taken up below in Section IV.B. For the moment, suffice it to say that this remarkable characteristic of quantum systems does not explain "the *inwardness* of subjective experience," but only simultaneous system-wide transfer of information. The inwardness of subjective experience is far more than this.

Before describing this "inwardness of subjective experience," we will first examine the limits of what Chalmers calls, "physical processes" – processes that can be described by either classical or quantum physics. As will be seen, the inwardness of subjective experience is not the only domain that classical and quantum physics cannot by themselves explain. There are two more fundamental domains:

- 1. Living systems (Section II.A)
- 2. Animal consciousness (Section III.A)

Human self-consciousness is far richer than the previous two domains and includes apprehension, inwardness, independence, and privilege over the "outside world" and we will examine this closely in Section III.B.

I.A Living Systems

We might begin by making a fundamental distinction between "being for-itself" and "being in-itself." Being for-itself" refers to any being that acts for itself – for its survival, sustenance, and replication – pursuing what will enhance it and avoiding what threatens it. Every living system – even a single-celled bacterium – acts for itself.

In contrast, "being in-itself" does not act for itself, and is insensitive to its existence. Systems describable by classical and quantum physics are "beings in-themselves." Though living systems are constituted by physical systems, they are more than this. They have a higher self-organizing principle and laws that direct physical processes to higher ends – such as metabolizing, seeking sustenance, avoiding threats, and replication. Without these higher self-organizing principles and laws, these physical systems would not direct their activities toward metabolism, sustenance, and survival. They would act only in the ways described by classical and quantum physics.

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²⁰³ See Nagel 1974, pp 435–50.

²⁰⁴ These terms do not carry Sartre's existential interpretation with them. They are used only in an ontological sense to describe two different modes of being.

In an important essay, "Life's Irreducible Structure," the eminent chemist-philosopher, Michael Polanyi, made this point clear and showed that the compounding of physical systems alone will not give rise to the biological activities mentioned above – they would only result in more complex *physical* systems (beings *in*-themselves). The compounding of merely physical systems does not enable the resulting complex to act *for* itself, but only to be a complex being *in*-itself.

Systems that act *for* themselves (living systems) depend on systems that exist *in* themselves (physical systems), but they are more than this – they have a higher level of self-organization than physical systems. The higher level of self-organization constitutes a higher level system (a *living* system) toward which all subordinate physical processes are oriented. Viewed the other way around, all physical processes within a being for-itself are oriented toward the preservation and replication of the *higher* order system.

We might say that in living systems, physical processes are oriented toward objectives which lie beyond them – toward preserving the higher order system with its higher level of self-organization. ²⁰⁵

Physical systems by themselves (that are not part of a living system) do not perform higher order activities (such as metabolism) to maintain, support and preserve a higher level of self-organization such as a living system. They simply act in prescribed ways without regard to the benefit of a higher ordered system. Protons attract electrons and repel other protons but they are indifferent to their own good or the good of anything else. If protons acted for themselves, they would act like single-celled organisms – but the fact is, they do not. Therefore, we must join with Polanyi in asserting that living systems are not reducible to physical systems (classical or quantum) alone. Living systems must have two *additional* components along with the physical systems that comprise them:

- 1. A higher level of self-organization giving rise to a higher order system (a living system), and
- 2. Higher order information that orients physical systems toward the end of maintaining, preserving and replicating the higher order system.

As we shall see (Section II.B), Polanyi calls these additional components of living systems "a higher order principle of design orienting physical and chemical processes toward ends not intrinsic to them." ²⁰⁶

If Polanyi is correct, then the hard problem of consciousness really begins with the hard problem of living systems. If a living system cannot be reduced to physical processes, then how much more irreducible will be consciousness in animals and self-consciousness in humans — which have even higher order self-organization directed toward even higher order ends.

Materialists have difficulty accepting the existence of "higher order self-organization directed toward higher order ends" because they cannot *identify* it through standard scientific instruments or tests. There are several problems with this materialistic objection. First, not all

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²⁰⁵ See Polanyi 1968, pp. 1308-1312.

²⁰⁶ Polanyi 1969 p. 225

physical realities (let alone biological ones) can be identified by standard scientific tests or instruments. For example, the laws of physics described by standard equations (e.g., E=Mc²) cannot be identified by direct observation or standard scientific instruments or tests. Where is the law behind E=Mc² to be found? In what process or physical reality can it be located? Yet no one will deny its existence and effects within the universe as a whole. How can we be so sure about the existence of physical laws? We know about them not because of direct observation or location, but by their *effects* – which tell us of their existence and operation.

The same procedure can be used to infer the existence of "higher order self-organization directed toward higher order ends" in living systems. The effects of this "higher order self-organization and its higher order ends" are evident in living systems, but conspicuously absent in merely physical ones. They will be apparent in the *new* activities that physical processes perform when they are immersed in living systems (e.g., bacteria), but do not perform outside living systems. Such activities include metabolism, self-preservation, and replication.

What kind of existence could "higher level self-organization directed toward higher order ends" have? They could exist in the same way as physical laws and constants – as determinative *information* in the universe as a whole. This determinative information is *not* a physical "thing," but rather a controlling influence on things and the relationships among things in the universe. Lonergan's distinction between "conjugates" and "things" will help to clarify this distinction.

I.B Lonergan's Levels of Reality – "Conjugates" and "Things"

Editor's note: readers interested in Lonergan's important ontology of physics as an explanation for living systems will want to consult *The Soul's Upward Yearning*, pp. 221-223.

I.C Protomentalist Solutions to the Hard Problem of Consciousness

Protomentalism or panpsychism has reemerged today in response to the hard problem of consciousness (e.g. David Chalmers, David Ray Griffin, David Skrbina, Christian de Quincey, and Peter Russell). It holds that the most fundamental physical systems are conscious in some elementary "proto" way. This position resolves the hard problem of consciousness without advocating a discontinuous hierarchy of reality – between physical systems and living systems, between living systems and sensate animal consciousness, and between sensate consciousness and rational human self-consciousness. This distinguishes protomentalists from Lonergan and Polanyi who do advocate for distinct (hierarchical) levels of reality. By postulating that consciousness exists within *physical* processes, panpsychists can *reduce* rational self- consciousness, sensate consciousness, and living systems to *physical* processes and systems. This allows the physical brain to be the sole source of human self-consciousness. By postulating the

²⁰⁸ Lonergan 1992, p 276.

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²⁰⁷ See Lonergan 1992, pp. 271-278.

presence of protomental properties in physical realities to support quasi-materialistic reductionism, it argues for a new kind of materialism – only this time, matter has been given "consciousness"

Though protomentalism/panpsychism responds to Chalmers' hard problem of consciousness by proposing a blending of consciousness with physical processes and systems at the most fundamental physical levels, it does not respond to Lonergan's and Polanyi's arguments for non-reductionistic hierarchical levels of reality. These arguments show that higher order self-organization and higher order laws and ends cannot be explained by the aggregation of lower order ones. Recall that living systems require additional laws (conjugates) to direct physical processes and systems toward *biological* ends which are *not* intrinsic to those physical processes and systems. Without these additional laws organized at a higher level than that of physical systems, physical systems would only be able to perform more complex physical activities – but not biological ones (e.g., metabolism, self-preservation, and replication). The lack of a cogent protomentalist response to the ontological levels proposed by Lonergan and Polanyi weakens the protomentalists' reductionistic contention – that human consciousness can be reduced to physical processes and systems fused with an elementary form of consciousness. Without such a response, it seems more likely that reality has what Polanyi calls "truly irreducible levels of self-organization and activity."

Furthermore, protomentalism/panpsychism is significantly challenged by three other issues related to *self*-consciousness and its transphysicality. First, as we saw above in Chapter One, near death experiences strongly suggest that self-consciousness has a *transphysical* ground which can survive the death of the physical body (and brain). If self-consciousness is truly transphysical – if it really can survive bodily death, then protomentalist solutions will be unsatisfactory because rational self-consciousness cannot be explained by the physical brain alone. If self-consciousness lives on after the death of the physical brain, it must have a distinct ontological ground apart from the physical brain – it must be transphysical.

There is yet another reason to be skeptical about protomentalist solutions to the hard problem of consciousness. Human consciousness appears to have three transphysical dimensions – heuristic notions operative in the formation of conceptual ideas, a horizon of complete and unrestricted intelligibility entailed by our unrestricted desire to know everything, and a horizon of higher mathematical intelligibility implied by Gödel's Theorem. This means that human self-consciousness cannot be intrinsically restricted by the limitations of physical properties in the brain. There must be some dimension of human consciousness going beyond not just the brain, but all physical systems. Recall that protomentalist solutions embed elementary consciousness within physical processes and systems. If this is really the case, then self-consciousness – which is supposedly reducible to these "conscious physical processes," would participate in the restrictions of those physical processes. However, this cannot be the case if self-consciousness can perform *trans*physical processes – such as being aware of heuristic notions, a horizon of complete and unrestricted intelligibility, and a horizon of non-algorithmic mathematical intelligibility.

There is still another reason to be skeptical about protomentalist solutions to the hard problem of consciousness. If self-consciousness is intrinsic to physical processes and systems, then it would begin to manifest itself at the moment that physical conditions are minimally met

for its emergence. It seems that this could occur at the level of chimpanzees – which have enough development of the cerebral cortex to manifest and process self-conscious prehensions and apprehensions. ²¹⁰ If *self*-consciousness emerged in chimpanzees, we would further expect them to have the same apprehension of "inwardness" and "inner-world" as human infants who, according to Piaget, are capable of *absolutizing* their "ego" – their inner world and their ownership of experience (see Section III.B). If this were the case, chimpanzees would act very differently – emphasizing autonomy, independence, centrality of self, and they would have early egocentric, domineering, and narcissistic impulses. If they had such impulses, we could clearly expect them to exemplify conduct betokening the film *Planet of the Apes*. Evidently, they do not. If self-consciousness really does exist in physical processes, then we might expect not only self-consciousness in chimpanzees, but also lower biological species – having even minimal development of the cerebral cortex. This would present us with a very different world than the one we live in.

Where do we go from here? We saw from near death experiences, heuristic notions, and the horizon of mathematical intelligibility (implied by Gödel's Proof), that physicalist explanations (including quantum physicalist explanations) are inadequate to explain these transphysical dimensions of consciousness. We also saw that protomentalist solutions do not respond to Lonergan's and Polanyi's arguments for irreducible levels of reality, the transphysicality of near death experiences, heuristic notions, and Gödel's Proof. Furthermore, they do not correspond to what we might expect to find in the animal kingdom, if physical processes and systems really did have consciousness – e.g., chimpanzees absolutizing their egos.

So can the hard problem of consciousness be resolved without making recourse to the two extremes of physicalism and protomentalism? There is considerable potential in the trialist interactionist model of Sir John Eccles, Sir Karl Popper, and Friedrich Beck (Section IV.A) in combination with the hylomorphic model of Bernard Lonergan²¹¹ and Michael Polanyi²¹² (Section IV.B). These models acknowledge a transphysical and irreducible ground of human self-consciousness, which can act as the higher order self-organization and ends of physical processes and systems. Just as "higher order self-organization and ends" of living systems can orient the activities of physical systems toward metabolism, sustenance, survival, and replication, so also the higher order self-organization and ends of transphysical self-consciousness can orient physical systems toward self-reflectivity, unrestricted rational inquiry, conceptual thinking, and mathematical creativity.

²¹⁰ Recent studies indicate that chimpanzees are born with significant capacity in the cerebral cortex – including the prefrontal cortex which is responsible for social functions. Though a human child's cortex develops much more than a chimpanzee's, a chimpanzee seems to have enough fine brain tissue to accommodate self-consciousness and its primary effects. See McLerran 2011.

²¹¹ Bernard Lonergan's notion of "thing" has remarkable explanatory power. He speaks of it as a concrete unity of

²¹¹Bernard Lonergan's notion of "thing" has remarkable explanatory power. He speaks of it as a concrete unity of diverse data extended in space and having a concrete duration. This "unity-identity-whole" not only unifies diverse data within it, but also has laws and operators that orient these diverse data to an end of the whole. This idea can be applied not only to quantum systems, but living systems (such as cells), sensate systems (such as vertebrates) and even self-conscious "systems" in humans. As such, it holds out the possibility of obtaining a hylomorphic solution to the hard problem of consciousness (see below Section III). See Lonergan 1992 pp 271-275.

²¹² Polanyi proposes the idea of a "principle of design that harnesses physical and chemical processes" to explain what I have called "higher levels of self-organization and ends." See the quotations from 1968 and 1969 below in Section III.

Before explaining this solution in greater detail, it will be helpful to clarify what philosophers mean by the following:

- "Sensate Consciousness" "prehensive" (feeling) of self within a field of perception (Section
- "Rational Self-Consciousness" an inward apprehension of self over and above the field of perceptions (Section II.B).

To do this, we will first turn to the exploration and descriptions of phenomenology.

II. Sensate Consciousness and Self-Consciousness – Back to top

Phenomenologists have made the most comprehensive contribution to the study of "selfpresence," "inwardness," and "interior experience" underlying the hard problem of consciousness. Phenomenological method was initially proposed by Edmund Husserl who was interested in describing phenomena as they presented themselves to us. For Husserl, perceptions never just exhibit themselves (as they are); they are always embedded in conscious experience, and so, in lived experience, they are always exhibitions of a synthesis of multiple dimensions of both perceptions and the experiencing subject.²¹³

The phenomenological investigation of self-consciousness has focused on four characteristics, or perhaps better, layers constituting our sense of self:

- 1. Pre-thematic sense of self within experience.
- 2. Sense of ownership or possession of experience.
- 3. An inner sense of time.
- 4. Reflective awareness of our inner-self.

We need only discuss the first two characteristics of consciousness for the purposes of our investigation because they will justify and explain Chalmers' and Nagel's contention that consciousness (through which subjective experience occurs) cannot be reduced to or replicated by physical processes.

II.A Animals, Sensate Consciousness, and the "Feeling" of Self

"Pre-reflective sense of self" refers to a sense or prehension of self-presence embedded in experience. It is pre-reflective because it does not result from reflection (thinking about ourselves to gain explicit self-understanding), but rather is a given – a fundamental or elementary given – embedded in the way our experience presents itself. Edmund Husserl²¹⁴ and Maurice Merleau-Ponty²¹⁵ give detailed accounts of this phenomenon.

²¹³ Husserl 1970. Sec. 45, pp. 157-8.

²¹⁴ Husserl 1959, pp. 189,412. ²¹⁵ Merleau-Ponty 1945, p. 488.

So what is this elementary sense of self? It is perhaps best described as a "feeling" of self. This feeling is more elementary than awareness – the feeling is called "prehension" while awareness (attending to the prehension of self) is called "apprehension." Philosophers have long reflected on the difference between these two states. The former is like a feeling (an intrusion into one's perceptual field), while the latter refers to some basic form of awareness (attending) that foregrounds the felt intrusion as an object of desire or interest. We might generalize by saying that prehensions are "feelings of self" without awareness (attending to the feeling of self), but apprehensions are "feelings of self" that include some elementary form of awareness or attending to that feeling.

Both humans and higher level vertebrates (e.g. cats, dogs, dolphins, and primates) prehend themselves in their field of perception. They also "feel" the presence of themselves within the imaginary stream of dreams. This enables them to feel or sense themselves *in relation* to everything else in the perceptual or imaginary field. So for example, a dog can feel itself in relation to a rabbit or a lion (both in its perceptions and dreams). This is sufficient to situate and pursue biological opportunities and to avoid biological threats.

This feeling or sense of self occurs *within* the perceptual or imaginary field. It is not sufficient to stand *outside* of or *apart from* the perceptual stream. It seems that even the highest species of animals (e.g. primates) are locked *into* their perceptual stream. They feel themselves to be distinctive *within* that perceptual stream, but they do not apprehend themselves *apart from* or above it (as human beings do).

Gordon Gallup has developed a "mirror test" of self-awareness in which he attempts to discover whether various animal species can recognize themselves in a mirror. Some species are interested in the object in the mirror, but don't recognize it to be a proxy for themselves. However, great apes do seem to recognize that the mirror image is such a proxy. When they are marked on the forehead, they touch the mark after they look in the mirror – indicating that they recognize the mark to be on *their* head. No other species engages in consistent "mark touching" behavior, and therefore does not pass the mirror test. This means that they do not have even a minimal sense of self-awareness. ²¹⁶

Does this mean that great apes have self-awareness in a similar way to human beings? Peter Carruthers denies this on the basis of his "higher order thought" theory. He asserts that self-consciousness is present only when a mental state is "available to be thought about directly by that subject." If a species' mental state is not available to be used or thought about by it, it cannot be self-conscious in the same way as human beings.²¹⁷

William Lycan (and earlier David Armstrong) have a modified view of the Carruthers proposal which corresponds well with the phenomenological account of self-consciousness given below. Instead of requiring the availability of a *mental* state to be thought about by a subject (as in Carruthers), they propose only the availability of a state of *experience* to be thought about.²¹⁸ It

²¹⁶ See Gordon Gallup et al. 2002, pp.325-334.

²¹⁷ See Carruthers 2000 and 2009, pp.58-59.

²¹⁸ See Lycan 1996 and Armstrong 1980.

seems that great apes / chimpanzees cannot meet either Carruthers criterion or Lycan's and Armstrong's criterion. Lycan's and Armstrong's criterion has the advantage of allowing children under four to be phenomenally self-conscious – whereas Carruthers criterion does not.

Herbert Terrace (of "Nim Chimsky" fame) has proposed an additional criterion for self-consciousness – namely, autonoetic episodic memory which enables a subject to project himself into the past or future. In order to do this, a species would have to be aware of itself sufficiently to extricate the thought of itself from its present perceptual field and to move that thought of itself within its memory of the past and anticipation of the future. If a species cannot do this, it would not have sufficient self-awareness to extricate itself from its *present* perceptual field – in which case it would be, as we have said, at the level of *prehension* alone – a feeling of self *within* a perceptual field. Terrace believes that only human beings have this capacity:

I argue that only human beings possess "autonoetic" episodic memory and the ability to mentally travel into the past and into the future, and that in that sense they are unique. ²¹⁹

If Gallup is correct in observing that no animal species except great apes can pass a "mirror test" of self-recognition (a minimal behavioral standard of self-consciousness), and if Carruthers, Armstrong, Lycan, and Terrace are correct that great apes / chimpanzees do not meet their criteria for phenomenal self-consciousness, it is unlikely that any animal species exemplifies self-apprehension – an awareness of being aware – or experiencing oneself experiencing. As will be seen in the next subsection, this uniquely human dimension of self-consciousness is precisely what makes it transphysical. We may now proceed to our phenomenological exploration of human self-consciousness.

II.B Human Self-Apprehension and Self-Consciousness

Humans prehend not only themselves *within* perceptions, but also outside the perceptual field. This enables us to *ap*prehend ourselves as the owners or possessors of our experiences and to apprehend our *independence* from the *whole* perceptual world.

Phenomenologists as well as other philosophers (e.g. Nagel) recognize that we not only have a sense of ourselves *apart* from our perceptual stream, we can use that autonomous sense of self to *unify* a *variety* of diverse experiences. It is the *same self* that possesses not only our perceptual experiences, but also dream experiences, memories of perceptual experiences, and beliefs about perceptual experiences, etc. Thus our apprehension of self provides a single substrate within the many diverse elements of our experience – all of them are "mine." Without this apprehension of self, the unity of our experiential stream would be inexplicable. ²²¹

In sum, if we did not sense ourselves as distinct from and independent of our perceptual stream, we would not be able to sense ourselves as owning our experiences, and if we did not sense ourselves owning our experiences, we would not have a sense of the unity of our

²¹⁹ Terrace 2005 p. 4.

²²⁰ Nagel 1974 pp. 435–50.

²²¹ Nagel 1974 pp 435-50.

experiential stream. We would be reduced to punctuated diverse experiences, without any sense of unity whatsoever.

Incidentally, this experience of "same self" having or possessing diverse experiences is the condition necessary for "narrative consciousness" (the ability to embed oneself in a story, and even to interpret the meaning of oneself within a story). This seems to be a universal and natural human ability – from childhood – not explicitly manifest in the rest of the animal kingdom. ²²²

Now we must ask what the source of this "subjective sense of having or possessing our *whole* experience" is. Is it similar to the prehensive feeling of self that animals and humans have *within* their perceptual and imaginative streams? The prehension of ourselves having or possessing our experiences is much more than this. In order to have a sense of self as a possessor, we would also have to have a prethematic sense of the following:

- A. *Interiority* we are not merely something *within* perceptions; we are something *in which* perceptions can be. This requires some kind of interiority or inwardness "an inner world" which remains the same throughout our diverse experiences, memories of experiences, etc.
- B. *Independence From the Perceptual World* The above sense of interiority gives rise to a distinction between the "inner-world" and the "outer-world" manifest in my perceptual stream. It seems that the awareness of "in me" and "outside of me" begins at this fundamental, prethematic level, and enables us to sense ourselves as *independent* of the *whole* outer world. Through this pre-thematic awareness of the "self being independent of the outside world," we can stand outside of the whole stream of perceptions, and make them our own.
- C. *The Inner Self as <u>Above</u> the Outside World* This "inner world" (which is distinct from the outer world) is viewed in a privileged position it is the possessor of the whole perceptual stream, and so it senses itself as above or "over" the outer world. This is probably the source of the human capacity to absolutize the ego (the "inner world") as well as the tendency to be not only self-centered, but also self-obsessed and narcissistic.

Jean Piaget noticed that little children naturally "absolutize" their egos (inner worlds). They have such a strong sense of ego that they put themselves in the center of reality, and relegate the rest of experience to the periphery (the outside). Thus, it is not unusual for children to think that the sun is following *them* instead of moving around the earth for *everybody*. Indeed, children's perceptions of self-possession or "mineness" can be so strong that they believe their own perspective to be central and infallible, and it takes continuous correction from parents to convince them that there are other perspectives that need to be reconciled with theirs. This leads to the disconcerting insight (which has to be learned) that they are not always right, and indeed, frequently wrong. 223

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²²² Higher primates do not have a sense of being in a story – a higher level integration of the experiences of their *whole* lives – showing that they do not have a sense of having or possessing their experiences. See the work of Hebert Terrace (20005) indicating that non-human species lack autonoetic episotic memory enabling them to project the thought of self into the past and future. Furthermore, having narrative consciousness requires what Husserl called "inner-time consciousness" (a sense of the flow of time *per se*) as well as a capacity to form *conceptual* ideas about the narrative stream they remember. Primates do not have a capacity to form syntactically significant conceptual ideas (the Chomsky Test), and so they do not have the capacity to interpret themselves within a narrative.

²²³ See Piaget 1977 p. 137, and Piaget 1930.

Can we get to an even deeper explanation of how this "pre-thematic sense of interiority that we feel to be outside and above our whole perceptual stream" is produced? Several observations can be offered. First, this particular sense of self must go beyond the mere prehension of self-embedded *within* a perceptual experience. It is one thing to feel a sense of self (within a perception) and quite another to *ap* prehend that the self has interiority. This *ap* prehension of self goes beyond a mere feeling of the *fact* of self, to an awareness of *what* the self is. This sense of self is laden with meaning – interiority, independence, privilege (being above the perceptual world), and possession or ownership. This meaning moves our sense of self from *prehension* (a *feeling* of self) to *ap* prehension – an awareness of meaning within the self.

What could be the origin of this *ap*prehension of our interior-privileged-possessor self? Our sense of inwardness brings out the "otherness" of the outside world as well as the possession of our experiences. This, in turn, brings out a sense of being above our whole stream of experiences. Thus, our sense of inwardness in contrast to the rest of our experiential field, brings out various meanings, moving us from mere feeling to the foregrounding of ourselves as interior, independent, and privileged.

How can this be done? We must have a reflective act of prehending that can prehend *itself* prehending – feel *itself* feeling – experience *itself* experiencing – at the very same moment that it is prehending data outside itself. We not only experience images in our perceptual field, we also experience *ourselves* experiencing those images. This causes us to *contrast* our experience with the images in our perceptual field. At the very moment we experience ourselves experiencing, we are aware that we are the experiencers and that the sensory images are not us. Thus, our prethematic, reflective experience of experiencing enables us to apprehend at once our interiority and our independence from and superiority to "what is not us" in the experience.

This multidimensional experience of experiencing does not happen in stages over time – i.e. in the first moment, we experience the perceptual field; in the second moment, we experience ourselves experiencing; in the third moment, we experience our inwardness – and then our independence – and then our superiority – and then our ownership. Conversely, all these dimensions occur at the same time. Intrinsic to our experience of the perceptual field is our experience of experiencing which provides the contrast for all the other meanings in our self-apprehension.

This experience of ourselves experiencing makes humans *categorically different* from that of chimpanzees and other higher vertebrates. As noted above, there is no indication that chimpanzees experience themselves as independent of and superior to the images in their perceptual field – no indication that they separate the "inner-world" from the "outer-world," and no indication that they are unifying the whole of their experiences. If chimpanzees were capable of such self-apprehension, they would be able to meet the criterion of Armstrong (1980) and Lycan (1996) – they would have experiential states available to be thought about by them. This does not appear to be the case. Furthermore, they would meet Terrace's criterion (2005) of being able to extricate themselves from their perceptual field to project a thought of themselves into the past and future (autonoetic episodic memory). However, chimpanzees do not display behaviors that would be naturally associated with this criterion either.

Additionally, if chimpanzees had human self-consciousness they would absolutize their ego in the same way that very young children do. According to Piaget, ²²⁴ at around 18 months, children begin the absolutizing of the ego. Though their language skills are not fully developed, they manifest a belief that they are autonomous, central and infallible. They try to protect their autonomy and independence by resisting and disobeying commands, and they will try to impose their will on those who allow them to do so. Though chimpanzees can display behaviors that appear self-seeking and domineering, most of these activities originate with pursuing *biological* opportunities (e.g. food, shelter, and procreation) and avoiding biological threats. Selfishness, excessive rage, and imposition of will for its own sake are not clearly manifest in chimpanzees as they are in children.

The uniqueness of human self-awareness (experiencing ourselves experiencing – with all of its attendant contrasts to our perceptual field) reveals a problem with protomentalist solutions to the hard problem of consciousness. Recall that protomentalists hypothesize that consciousness is embedded in the physical world. If this is truly the case, then chimpanzees (who have sufficient cerebral capacity) should be self-conscious because all of the physical components necessary for self-consciousness to emerge through the chimpanzee brain are in place. This is not the case if Carruthers, Armstrong, Lycan, Terrace, and Piaget are correct. This casts doubt on the presence of consciousness in physical processes and systems. This leads to the obvious question – if self-consciousness is uniquely present in humans, and not present in the biophysical constituents of humans, what is its source? I would propose that it is the same as the source of the transphysical ground of consciousness manifest in near death experiences, terminal lucidity, heuristic notions, the horizon of complete and unrestricted intelligibility, and the horizon of mathematical intelligibility indicated by Gödel's Theorem. This will be shown in the following subsection.

II.C The Transphysical Nature of Human Self-Consciousness

Why consider human self-consciousness to be transphysical? Is there something about it that suggests transphysicality – like survival of bodily death, heuristic notions, and horizons of intelligibility? There seems to be good reason for thinking this. In order for us to experience our experiencing (in a single act), our experiencing cannot be bound by the parameters of a space-time manifold, for space-time prohibits a single reality or action from occurring at more than one relative position at the same time – i.e., the position of experienc*er* and experienc*ed* in the very same act.

How can the very same act of experiencing be in two relative positions with respect to itself simultaneously – as experiencer and experienced? For the purposes of illustration, we might analogize the *mental* phenomenon of self-consciousness with the *physical* phenomenon of, say, trying to put a briefcase inside of itself (making it be in two relative positions with respect to itself simultaneously). There are only two ways in which this could be done:

1. By travelling at an infinite velocity so that it could be at two relative positions simultaneously – inside and outside of itself.

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²²⁴ See Piaget 1977 p. 137, and Piaget 1930.

²²⁵ See McLerran 2011

2. By not being conditioned by space-time – if the briefcase were unaffected by space-time, it could be in multiple relative positions with respect to itself simultaneously.

Both ways of enabling a single reality to be in two relative positions with respect to itself simultaneously require transcending the conditions of space *and* time.

Some readers may be thinking that quantum systems (*physical* systems) also avoid the conditions of *both* space *and* time, as manifest in quantum entanglement. If this were true, then quantum systems would be transphysical, and the protomentalist solution to the hard problem of consciousness would seem to have merit. Before explaining why this is not the case, we will want to briefly summarize what quantum entanglement is.

Quantum entanglement occurs when pairs of particles closely interact with one another over arbitrarily large distances such that the quantum state of each particle cannot be described independently of the other. It suggests that measurement of quantum systems can occur only within the system *as a whole*. For example, measurement of the momentum, position, or spin of one entangled particle will affect momentum position or spin of the other particle (no matter how far the other particle is from the first). If one entangled particle (in a pair whose total spin is zero) is measured to have a clockwise spin, the other will be measured to have a counter clockwise spin – even over arbitrarily large distances. Thus, the measurement of one particle in an entangled pair affects the measurement of the other regardless of the distance between them. This phenomenon has caused many to think that quantum systems are not conditioned by space and time.

This contention is not correct because quantum systems as a *whole* are conditioned by space and time, but they are free from the conditions of locality and local realism. The principle of locality states that a physical object is influenced only by its *immediate* surroundings. Quantum entanglement clearly violates this because one particle has effects on another at great distances. The principle of local realism states that an objectively measurable aspect of an object must preexist the measurement. Quantum entanglement also violates this principle because the measure of a particle can occur at the time of measurement.

How can this be explained? One possible explanation is that information introduced into a quantum system by, for example, a measurement, affects the disposition of the *whole* system. Information introduced at one point affects potential measurements at all points within the system.

Does this mean that a quantum system is free from the conditions of both space *and* time? It does not. Certain spatial conditions (locality and local realism) are negated *within* a quantum system. However, quantum systems – as a *whole* – exist within and are conditioned by space and time. Whole systems are extended in *space* and subject to *temporal* constraints – e.g., the *whole* system cannot collapse into two distinct eigenstates simultaneously or give rise to two distinct outcomes simultaneously. ²²⁶

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²²⁶ Some readers might be thinking that the prohibition of two distinct eigenstates occurring simultaneously from the collapse of a single quantum system can be avoided by appealing to Everett's "many universes" interpretation of quantum mechanics (1957). In this view, there is no "collapse" of the wave function, because all possible outcomes exist in their *own* distinct universes. Thus, two contradictory outcomes – such as Schrödinger's cat alive in our

If quantum systems cannot give rise to two distinct outcomes simultaneously (in the same universe²²⁷), then it seems that a single quantum system cannot be in two distinct relative positions with respect to itself simultaneously. Human self-consciousness appears to do precisely this. When we experience our experiencing, the same act of experiencing has two relative positions with respect to itself simultaneously. This characteristic of human consciousness strongly suggests that it is transphysical. Though transfer of information *within* a quantum system is free from the conditions of locality and local realism, the *whole* quantum system is not free from the conditions of space and time (and is not able to be in two relative positions with respect to itself simultaneously).

We have already seen the likelihood of transphysical consciousness in the capacity to survive bodily death, the innate presence of heuristic notions, and the presence of a horizon of complete intelligibility – and now we see yet another indication of it in *self*-consciousness' capacity to be in two relative positions with respect to itself simultaneously. If the above analysis is correct, the inwardness of *human* experiencing requires that the same act of experiencing be both experiencer and experienced simultaneously. This quality transcends the conditions of space *and* time, implying transphysicality. As such, it seems that human self-consciousness comes from the *same transphysical* ground as our capacity to survive bodily death, and to be aware of heuristic notions and the horizon of complete intelligibility. The origin of our self-consciousness is not the brain or its physical processes or constituents, but rather this transphysical ground.

III. Dualism and Trialism – Back to top

If we take seriously the implications of the transphysical nature of self-consciousness, then we will have to explain how it can interact with the physical brain. This brings up the age old problem of dualism, which has its origins in Plato, and in the Modern Period in René Descartes. Dualism respects the distinctive transphysical nature of the human mind (and self-consciousness) as well as the physical constituents of the brain. However, since it treats the transphysical and physical components as completely distinct substances, it is beset by a vexing problem – how can the two separate substances interact? If we maintain the distinct character of transphysical consciousness and the physical processes of the brain, there is only one way of resolving this problem – there must be what we might term a "third substance" that can mediate the transphysical and physical domain – a substance which is both constrained and unconstrained by space and time. As we saw above, the most likely candidate for this third substance is a quantum

universe and dead in another hypothetical universe – can seemingly occur simultaneously. Aside from the fact that there is no evidence for these other universes, and the "many universes" interpretation has physical and ontological problems (e.g., Gerver, 1971, Stapp, 2002, and Baker 2007), this hypothesis does not imply that quantum systems are transtemporal – that they can give rise to two distinct outcomes *simultaneously* – that is, without temporal separation – e.g., the cat alive at one moment and then dead at a *later* moment. The very fact that we would have to postulate another universe – with a *distinct temporal continuum* – shows that a single quantum system cannot produce two distinct outcomes at the *same* time in the *same* temporal continuum (in the same universe). Thus, hypothesizing other universes does not show that quantum systems can avoid the conditions of space and time – it only serves to *affirm* it.

system, which as a *whole* is constrained by space and time, but *within* is free from certain conditions of spatiality (locality and local realism). Furthermore, in the orthodox interpretation of quantum theory (von Neumann, Margenau, Beck and Stapp – see below Section IV.A), a whole quantum system (which does not have mass-energy when it is in its pure potential state) can be affected by a purely mental phenomenon (e.g., a conceptual idea, an intention, or an observation), which can convert it from its potential state (expressed by a wave function) to a precise actual state (an "eigenstate") capable of interacting with the classical physical systems of the brain. This is the model proposed by Sir John Eccles and his colleagues, which he terms *tri*alist interactionism.

Sir John Eccles, the Australian neurophysiologist who won the Nobel Prize for his research on brain synapses, has proposed one of the most enlightened theories of "consciousness and brain" in recent history. In his early work (pre 1989), he called himself a "dualist interactionist," but in his later work (post 1989), a "trialist interactionist" because he believed that quantum field theory had the potential to mediate the transphysical self ("soul") and the material brain. Few scientists have understood brain functioning more profoundly than Eccles, and still fewer have studied philosophy sufficiently to understand the "inner self," "subjective experience," and "pure ego." Eccles understood the hard problem of consciousness long before its contemporary articulation by David Chalmers, and Thomas Nagle. Through his extensive knowledge of physical processes in the brain, he was able to articulate the incapacity of the brain's (physical) processes to describe and explain mental phenomena – particularly, conceptual ideas, creativity, experience of self, and pure ego.

His theory of trialist interactionism (developed in conjunction with Sir Karl Popper²²⁸) holds out the possibility for explaining not only the phenomenon of near death experiences, but also heuristic notions, the horizon of complete intelligibility, the phenomenon of "experiencing ourselves experiencing," and the uniqueness of each manifestation of self-consciousness. Though his theory of consciousness and brain has broader explanatory potential than any other I have encountered, it can be supplemented and assisted by some insights from hylomorphism (particularly in Michael Polanyi and Bernard Lonergan – see below Section IV.B).

Eccles complemented his medical studies at the University of Melbourne with philosophical studies at Oxford University – specifically focusing on the "mind-brain" problem. He was undoubtedly familiar with the problem of heuristic notions and conceptual ideas (described above). Recall that heuristic notions and conceptual ideas cannot occur through the space-time particularity and individuation of physical processes – not even quantum ones. Yet their existence in our cognitional activity cannot be denied – for without them, we would not be able to pass Chomsky's syntactical test. This led him to conclude:

[T]he materialistic view of mind is simply an illusion – a monism borne out of ignorance of either the philosophical problem of mind or the physical dynamics of brain physiology... The more we discover scientifically about the brain, the more clearly do we distinguish between the brain events and the mental phenomena, and the more wonderful do the mental phenomena become. ²²⁹

²²⁸ See Popper and Eccles 1984.

²²⁹ Eccles 1990, p. 434.

Eccles' philosophical studies also led him to the analytical and phenomenological study of the self. He was aware of the problem of inner-subjectivity "experiencing ourselves experiencing," and absolute ego, and concluded that, like conceptual ideas and heuristic notions, these phenomena were also incapable of being explained by physical processes in the brain – a remarkably lucid statement of the hard problem of consciousness twenty years before Chalmers. This led him to the consequence that each "inner-world" is unique and unduplicatable – requiring a unique transphysical origin – a "creation of an individual soul":

Since the materialistic conception is incapable of explaining and accounting for the experience of our unrepeatability, I am forced to accept the supernatural creation of the unique, spiritual, and personal 'I' – that is, the soul. Or, to put it in theological terms, every Soul is a new Divine creation infused into the human embryo.²³⁰

Though Eccles' view of a unique transphysical soul is derived mostly from conceptual ideas and the inwardness and unrepeatability of our experience of self, it can also explain the phenomenon of near death experiences. The major longitudinal scientific studies of NDEs (e.g. Parnia, et al. 2014, van Lommel, et al. 2001, Holden 2007, and Ring, et al. 1999), were completed after Eccles' death (1997), but he had a strong intuition that the "unique transphysical soul" did not have to cease after the death of the physical brain – it could – indeed it should, be able to persist:

I believe that there is a fundamental mystery in my existence, transcending any biological account of the development of my body (including my brain) with its genetic inheritance and its evolutionary origin...I cannot believe that this wonderful gift of a conscious existence has no further future, no possibility of another existence under some other unimaginable conditions.²³¹

As might be expected, Eccles' view of transphysical self-consciousness ("soul") almost inevitably encounters the problem of dualism. If the ground of self-consciousness is truly transphysical, and the brain is truly physical, how can they interact? He proposes a third mediating reality – quantum fields – which exist in the physical world, but have a transphysical property – that is, it can be affected by purely mental phenomena (such as a conceptual idea). This third mediating component moves him from "dualism" to "*tri*alism." Responding to his materialistic critics, he notes:

The materialist critics argue that insuperable difficulties are encountered by the hypothesis that immaterial mental events can act in any way on material structures such as neurons. Such a presumed action is alleged to be incompatible with the conservation laws of physics, in particular of the first law of thermodynamics. This objection would certainly be sustained by nineteenth century physicists, and by neuroscientists and philosophers who are still ideologically in the physics of the

²³⁰ Eccles 1989. p. 237.

²³¹ Eccles 1970. p. 83.

nineteenth century, not recognizing the revolution wrought by quantum physicists in the twentieth century. ²³²

Eccles uses Margenau's interpretation of orthodox quantum theory, postulated by John von Neumann, ²³³ to show the real possibility of immaterial realities (such as conceptual ideas) affecting classical physical processes (such as the bio-physical constituents of the brain) through the mediation of quantum fields. According to that theory, observation (*immaterial* input), can collapse a quantum wave function (a state of probabilistic potentials) to an eigenstate (an actual physical state that can affect and be affected by classical physical systems – such as the bio-physical systems of the brain). Accordingly, intentions, self-consciousness, conceptual ideas, and other immaterial contents of consciousness can have an effect on the classical physical systems of the brain. Eccles notes in this regard:

Following Margenau, the hypothesis is that mind-brain interaction is *analogous* to a probability field of quantum mechanics, which has neither mass nor energy yet can cause effective action at microsites. More specifically it is proposed that the mental concentration involved in intentions or planned thinking can cause neural events by a process analogous to the probability fields of quantum mechanics.²³⁴

Eccles continued to develop this theory in conjunction with the German physicist Friedrich Beck. Their research has made important contributions to the field of neuroquantology. ²³⁵

Though some contemporary quantum theorists view von Neumann's orthodox interpretation of quantum theory as controversial, there is good reason to believe that it is "realistic" and applicable to the mind-body problem. The particle physicist Henry Stapp uses the quantum "Zeno effect" to show the possibility of a *whole* system collapse to an eigenstate (a classical physical state that can affect and be affected by the biophysical constituents of the brain). The quantum "Zeno effect" refers to the effects of human observation on a quantum system – if one observes or measures the system frequently enough, one can suspend the decay of that system (a classical physical effect brought about by observation). For example, if one observes an unstable particle continuously, it will not evolve from its first known state. Inasmuch as the "Zeno effect" exemplifies the effects of observational intention on physical systems, it can ground Eccles' *tria*list interactionism.

In sum, the *tri*alist interactionism of Eccles (along with Popper, Stapp, and Beck) has considerable potential to explain how five seemingly transphysical dimensions of consciousness interact with the biophysical systems of the brain:

- 1. Capacity of consciousness to survive bodily death (implied by near death experiences),
- 2. The need for heuristic notions to transform perceptual ideas (material images) into conceptual ideas (free from space-time particularity and individuation),

²³³ von Neumann, 1996.

²³² Eccles 1990, p 433.

²³⁴ Eccles 1989. p. 189.

²³⁵ Beck and Eccles 1992 and 2003.

- 3. The need for a horizon of complete and unrestricted intelligibility to explain our awareness of the incompleteness of *all* restricted intelligibility,
- 4. The need for a horizon of mathematical intelligibility to explain how human consciousness can continuously transcend rules and algorithms in the development of higher mathematics (implied by Gödel's theorem), and
- 5. The need for consciousness to be in two relative positions with respect to itself simultaneously (implied in the inwardness and self-apprehension of human experience the hard problem of consciousness).

If human intentionality, ideas, and observation truly do collapse the potential of the whole quantum system to a determinate classical state (that can interact with biophysical processes in brain synapses), then human *transphysical* self-consciousness can interact with the physical processes of the brain. It would not be surprising to see additional advances in quantum theory continued to corroborate this conclusion.²³⁶ Indeed a whole new area of biophysics is developing around it – "neuroquantology."²³⁷

Chapter Six Methodological Considerations and Conclusions about our Transphysical Soul – Back to top

When we combine the evidence and conclusions of the above five chapters, the resultant model of human consciousness is as follows:

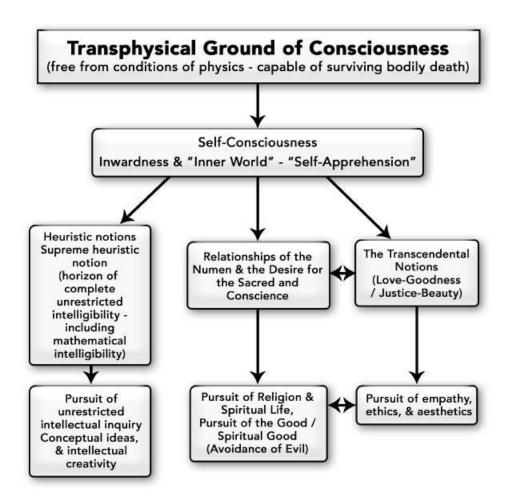
- 1. There exists a unique instantiation of transphysical consciousness in every human being which is the source and ground of heuristic notions, the unrestricted desire to know, the awareness of higher mathematical intelligibility, and the inwardness and self-apprehension of "experiencing our experiencing."
- 2. This transphysical ground of self-consciousness is independent of the brain (and all physical systems), meaning that it can perform all cognitional functions without the brain and survive bodily death.
- 3. If Eccles, Beck and Stapp are correct, then each unique instantiation of self-consciousness can interact with a physical brain through the mediation of quantum fields in brain synapses. These quantum fields can be affected by transphysical activity and content (such as conceptual ideas, intentions and observations), which can collapse the whole field to an eigenstate capable of interacting with the classical physical systems of the brain.
- 4. Each unique instantiation of self-consciousness can unify the brain's perceptual contents (perceptions, images, perceptual ideas, and perceptual memories) with transphysical contents (e.g., conceptual ideas, abstract theories, and mathematical theories).

The above transphysical activities and contents are the mediating ground through which human self-consciousness interacts with *Divine* self-consciousness – particularly in the experience of the Numen and the Sacred, the awareness of moral Authority through conscience,

²³⁶ See for example Beck and Eccles 1992. pp. 11357-11361, and Beck 2008, pp. 140-151.

²³⁷ See the developments reported in the journal *NeuroQuantology* http://neuroquantology.com.

and the awareness of a cosmic struggle between good and evil. They are also the vehicle for appropriating and interpreting love (empathy) and beauty (aesthetics) on both the temporal and transcendent level. The following diagram lists the central role of each unique instantiation of transphysical self-consciousness, showing the extent of our transcendent nature and activities.



We began this chapter by noting the limitations of physicalist models of consciousness. We can now see that those limitations have consequences beyond the problems of explaining heuristic notions, the unrestricted desire to know, Gödel's theorem, self-consciousness, and near death experiences. These transphysical activities affect the way we view ourselves, the meaning of life, our sense of dignity, and our ultimate destiny. If we detach ourselves from these transphysical activities, and consider ourselves mere classical and quantum physical systems, we eclipse the true mystery of our being – negating the significance of virtually everything on the above diagram. We no longer see our nature and dignity as unrestrictedly inquisitive and creative, seeking perfection in truth, love, goodness, and beauty; we ignore or screen out the experience of the Numen which calls us interiorly into relationship with Itself; we become insensitive to the guidance of conscience and the cosmic struggle surrounding us; we circumscribe the unrestricted potential of our goodness and love; and we reduce ourselves to the temporal and material – becoming disconnected from our eternal and transcendent purpose and destiny.

Why would we do this when the evidence for our transphysical activities is significant — based on careful studies of near death experiences, Gödel's proof, the necessity of heuristic notions (recognized from the time of Plato), the hard problem of consciousness (the inwardness of self-apprehension) and our awareness of complete unrestricted intelligibility (intrinsic to our unrestricted desire and pursuit of universal knowledge)?

This evidence is not, strictly speaking, empirical, and therefore cannot be considered "scientific." However, knowledge is *not* limited to observation and science. There is also *a-priori* knowledge (based on the principle of non-contradiction from which we derive logic, mathematics, and methodological principles); the knowledge of interior experience (through which we apprehend inwardness, self-awareness, the Numen and conscience); and the evidence of corroborateable eyewitness testimony (from which we learn about history and the data of near death experiences). Though these kinds of evidence are not strictly speaking empirical and scientific, they are nevertheless valid – and we would not want to preclude the data derived from them from the domain of reality by unjustifiably and arbitrarily limiting reality to the empirical domain alone. If we did so, we would have no logic, mathematics, psychology, philosophy, history, ethics, law, etc. Indeed, this arbitrary restriction of evidence would present tremendous problems to the pursuit of science itself, which is dependent on mathematics, logic, and methodological principles *not* derived from empirical observation or scientific methodology.

We have frequently noted that there are far more errors of omission than commission — and that reality is bigger and richer than the explanatory power of any particular method or causal model. If there is any legitimacy to the above kinds of non-scientific knowledge — and the clues to the transcendent they reveal — then it would seem more prudent to open ourselves to their breadth of data, rather than imposing an *a-priori* limitation to legitimate evidence (restricting it to the domain of observation and science alone). Evidently, such an *a-prioristic* limitation of evidence cannot be justified by either observation or science — and so it is a self-refuting enterprise.

The above view of consciousness is the new field upon which the academic and cultural battle between materialism, panpsychism, and transcendentalism is being waged. We now see that the outcome of this battle will not only affect our personal view of life's purpose, the world, human dignity, and human value, but also the culture's outlook on these important ideas and ideals. Jesus' proclamation that "the truth will set you free" is particularly important here – for if we and the culture falsely underestimate our purpose, dignity, value, and destiny, we will also unnecessarily restrict our freedom and potential to reach beyond the material world into the domain of perfect truth, love, goodness, and beauty. This would be one of the greatest avoidable travesties we could collectively impose upon ourselves. To avoid this, we need to seriously consider our transcendental nature, dignity, value, and destiny – and upon finding it, act on it.

Chapter Seven Free Will and Original Sin – Back to top

Introduction

We are now in a position to examine human free will, which can be explained by the transphysical dimension of our self-consciousness' inner world – inner privacy – enabling us not only to grasp ourselves, but also to choose the powers and desires that will ultimately define the "self" we grasp. As we shall see, we are confronted from childhood by two fundamental options:

- 1. The option to aggrandize ourselves and to possess others and the material world or
- 2. The option to pursue relationships with God and others and to submit to the requirements of conscience and empathy/love.

We of course make the choices of self-definition over the course of time, and we can certainly change our minds along the stages of life's way. But through the course of choices and many changes, a preferred pattern begins to develop, and when it does, we begin to define ourselves – our essence – towards either the first option or the second. These choices and their cumulative effect on our self-definition is the most important dimension of our lives, for it will ultimately determine who we are and what we will become for an eternity.

We will also discuss an impediment to our free will that has arisen out of original sin – the sin of our first parents. The Church has called this impediment concupiscence – a darkening of our transcendent soul's awareness of the full beauty, glory, goodness and love of God – a darkening that makes us vulnerable to egocentricity, the seven deadly sins, and what St. Paul calls, "the sins of the flesh." Yet as we shall see in Volumes 3&4, Christ has overcome this vulnerability – not by taking away the darkening of our souls (concupiscence), but by giving us the unconditional love of His redemption, the power of His Holy Spirit, and the hope of His resurrection. Though our free will is still affected by concupiscence, we have the unconditional mercy of God and the grace to help us overcome these effects so that we can say, along with St. Paul:

I do not understand my own actions. For I do not do what I want, but I do the very thing I hate... For I do not do the good I want, but the evil I do not want is what I do. Now if I do what I do not want, it is no longer I that do it, but sin which dwells within me... For I delight in the law of God, in my inmost self, but I see in my members another law at war with the law of my mind and making me captive to the law of sin which dwells in my members. Wretched man that I am! Who will deliver me from this body of death? Thanks be to God through Jesus Christ our Lord! (Rom 7:15 -25)

Before discussing original sin in this chapter and Jesus' overcoming of it in Volumes 3&4, we will want to take a closer look at human free will and its origins within the human soul.

In the foregoing chapters, we discussed the substantial evidence for our transphysical soul from the medical studies of near death experiences, the five transcendental desires, the phenomenon of self-consciousness (giving rise to Chalmer's Hard Problem of Consciousness),

Gödel's Theorem, and the human capacity for syntactically meaningful language and conceptual ideas. This evidence reveals twelve capacities of the soul that are inaccessible to artificial and animal consciousness. We have already discussed eleven of these capacities as well as our capacity to survive bodily death and experience continued existence in a transphysical domain. We will now discuss the twelfth capacity – free will – in this topic area. A quick review of the twelve capacities may prove helpful:

- 1. The capacity for self-consciousness inwardness allowing us to experience and apprehend ourselves, and to create a private inner world.
- 2. The capacity for conceptual ideas allowing us to have abstract thoughts, syntactical control, and conceptual language (this capacity is quite significant for the discussion of original sin below, because of the studies of Noam Chomsky and Robert Berwick showing that this capacity is completely unique to human beings, and enigmatic in its origins 70,000 to 100,000 years ago²³⁸).
- 3. The desire for perfect truth enabling us to recognize all imperfections in our knowledge causing us to ask questions indefinitely until we reach perfect truth (the knowledge of everything about everything complete intelligibility).
- 4. The recognition of the spiritual-sacred-numinous-transcendent reality (God), causing fascination, worship, awe, and obedience which draws us to enter into a deeper relationship with Him -- bringing us to His transcendent, eternal, and sacred essence.
- 5. The desire for perfect home enabling us to recognize the imperfections of our worldly existence causing us to pursue the sacred and Its source until we have reached our perfect home.
- 6. The capacity for empathy which recognizes the unique goodness and lovability of the other creating the desire to care about and care for the other even to the point of self-sacrificial love.
- 7. The desire for perfect love enabling us to recognize all imperfections in love -- causing us to pursue deeper and more authentic love until we have reached perfect love.
- 8. The capacity for moral reflection, originating from conscience which is God's moral presence to our self-consciousness.
- 9. The desire for perfect justice/goodness, enabling us to recognize all imperfections in justice/goodness (in groups, organizations, and community) causing us to pursue more perfect forms of justice and the common good until we have reached perfect justice/goodness.
- 10. The capacity to appreciate and be filled by the beautiful in nature, music, art, architecture, literature, intellectual ideas, love, and goodness causing us to seek ever greater forms of beauty until we reach perfect beauty-majesty-splendor itself.
- 11. The desire for perfect beauty enabling us to recognize all imperfections in beauty causing us to pursue ever greater beauty until we reach perfect beauty itself.
- 12. The capacity for free will self-consciousness' orientation toward either *itself* or toward others and God (in goodness and love) explained below.

When these capacities are understood properly in light of the evidence presented above in chapters one through four, there can be little doubt about the truth of the proclamation in Genesis that God has made us in His own image and likeness (Gen 1:27).

²³⁸ See Noam Chomsky and Robert Berwick, 2015 Why Only Us: Evolution and Language (Cambridge: MIT Press).

So how does free will operate? It arises out of a combination of several of the capacities of our transphysical soul (and God's presence to it). At the center of freewill is our capacity for self-consciousness enabling us to create our own inner world – indeed to create our own moral essence. When God gave a transphysical soul to the first human beings – and to all subsequent human beings – He not only bestowed on them the capacity for self-awareness and self-definition, He also gave them the other capacities mentioned above. Key among these are empathy, conscience, and the awareness of Him (the spiritual-sacred-numinous-transcendent reality). This gave a fundamental option to human beings – to orient their thoughts and actions toward themselves – toward their inner world (self-centeredness or egocentricity) – or toward Him (in worship and prayer), others (through empathy and care), and the good (through conscience). Both options have a fundamental attraction, but in many respects, they are opposed to one another. One might say that the first human beings felt a call to aggrandize and enrich themselves (to turn inward) – and a call to reverence God, respect and help their fellow human beings, and obey their conscience (to turn and contribute outwardly). The following illustration may prove helpful.



As will be discussed below, the call to God, others, and virtue was much stronger than the call to serve and aggrandize ourselves. One might say that God gave a substantial advantage to the call to holiness, love, and goodness. How? By manifesting the immense beauty and lovability of His own essence – as well as His goodness and love. It was *almost* irresistible, but not

completely irresistible; for God wanted human beings to choose Him and His way over-against the possibility of choosing ourselves as our primary orientation. Let's call this "the original state of human beings." In this state human beings were free to choose God and others as a primary orientation or to choose themselves – but the beauty and lovability of the first option was much stronger than that of the egocentric option.

With this brief introduction, we may now discuss the following three topics:

- 1. The fall and original sin (Section I)
- 2. What happened to human nature and free will after the fall? (Section II)
- 3. The science and the biblical account of original sin. (Section III)

I. The Fall and Original Sin – Back to top

The biblical account of original sin in Genesis 3 indicates three important points about free will and the human condition that help us understand ourselves and the need for redemption by Jesus Christ:

- 1. The first sin of the original parents of humanity²³⁹ (Section I).
- 2. The effects of this first sin upon human nature and free will (Section II.A).
- 3. The effects of this first sin upon our relationship with God, others, and the world (Section II.B).

Let us now proceed to the fall and the first sin. The story of Adam and Eve is so psychologically deep and theologically insightful, it is difficult to imagine that it could have been written in 500 B.C. without the direct inspiration of the biblical author by God Himself. The context of the story is that God has created human beings in His own image and likeness, and has withheld nothing from them. As noted above, God created humanity with free will, but made the attraction to Him (and His goodness and sacredness) significantly stronger than the attraction to self. He gave human beings a commandment – presumably through a strong sense of conscience – not to seek for themselves the wisdom and power that belongs to Him alone. At first, the couple seems to effortlessly comply with this commandment, allowing themselves to be subordinated to and dependent on Him.

Genesis 3 begins with the serpent – representing the evil spirit²⁴¹ who appears on the scene and makes several suggestions that both tempt and deceive the couple. The dialogue between the serpent and the couple is worth considering in detail:

²³⁹ For an account of how the idea of first parents squares with the scientific viewpoint, see Chapter Five, Section III.

²⁴⁰ In the contemporary viewpoint, God created human beings with the above-mentioned twelve capacities as well as the capacity to survive bodily death. Our transcendental capacities are so great that we can be satisfied only by Him – who is perfect truth, love, justice/goodness, beauty, and home. As Augustine noted at the beginning of the *Confessions* – "For thou hast made us for thyself, and our hearts are restless until they rest in thee" (*Confessions* Book One, Chap One).

²⁴¹ The evil spirit does not appear frequently in the Old Testament, but is a key figure in the New Testament – particularly in the life and ministry of Jesus (in all four gospels). Nevertheless in this remarkable narrative, the

Now the serpent was more crafty than any other wild animal that the LORD God had made. He said to the woman, "Did God say, 'You shall not eat from any tree in the garden'?" The woman said to the serpent, "We may eat of the fruit of the trees in the garden; but God said, 'You shall not eat of the fruit of the tree that is in the middle of the garden, nor shall you touch it, or you shall die." But the serpent said to the woman, "You will not die; for God knows that when you eat of it your eyes will be opened, and you will be like God, knowing good and evil." So when the woman saw that the tree was good for food, and that it was a delight to the eyes, and that the tree was to be desired to make one wise, she took of its fruit and ate; and she also gave some to her husband, who was with her, and he ate. Then the eyes of both were opened, and they knew that they were naked; and they sewed fig leaves together and made loincloths for themselves. They heard the sound of the LORD God walking in the garden at the time of the evening breeze, and the man and his wife hid themselves from the presence of the LORD God among the trees of the garden (Gen3: 1-11).

Notice the tactics of the evil spirit. First, he suggests to the couple that God has withheld something from them – something that would be good for them, and to which they are entitled. This is a lie – because God has made them in His very image and likeness with the twelve capacities mentioned above. In addition to this, He has satisfied their desires for everything. The only thing they lack – is that they cannot satisfy their desires *by themselves* – they are dependent on Him.

The evil spirit is aware that the couple has free will, and is also aware that the couple must be dependent on God, because they cannot become God themselves – for as explained above, there can be only one unrestricted uncaused reality which is absolutely simple – and therefore only one reality that can be perfect truth, love, justice/goodness, beauty and home. The couple does not know this, and so they do not recognize the serpent's lie. They believe that if they disobey Him, they could get the wisdom and power that God had withheld from them – to which they were entitled.

From a contemporary standpoint, we might say that the first couple would have known through their conscience and sense of the sacred that they were not gods and that self-worship is not only a denial of their creature-hood, but a rejection of the Creator. Everything inside them – from their conscience and their sense of the holy – would have been shouting "danger!" They would have felt a deep sense of alienation, emptiness, and darkness from the mere consideration of this suggestion from the evil spirit; yet the suggestion seemed right – God really was withholding something from them to which they were entitled – to be precisely like Him. The sin of the couple was to grow envious of their Creator – to resent their subordination to Him – and reject the need to depend on Him and give praise to Him – and so they entered – through the

serpent plays a key role which closely resembles the role that Jesus attributes to him 500 years later. We will examine the reality of evil today – along with the tactics used by the evil spirit in Volume 14 of this *Compendium*.

suggestion of the evil spirit – into the world of darkness – through a gateway of envy, presumption, anger, and resentment. They refused to give praise to the Sacred One – so that they might have His authority and praiseworthiness for themselves.

Is it conceivable that the first human beings (living perhaps 200 thousand years ago – see below Section III) could have had a special awareness of the beauty, lovability and sacredness of the transcendent – and could have wanted this for themselves – to prioritize themselves above the Sacred One – to be envious of and resent the Sacred One? Could primitive human beings – veritable cave dwellers – have felt something like this? If they had the above 12 capacities – even in a completely undeveloped state – then they could have acted against their conscience and their awareness of the Sacred "Wholly Other."

Was the evil spirit interested in deceiving a primitive couple 200 thousand years ago? Absolutely, the moment God gave the first human beings a transphysical soul with the above twelve capacities – including free will – the evil spirit was interested in fomenting their envy, anger, presumption, and rebellion. The evil spirit wanted to be their master – and so he convinces them that they can be their own master – and after they cut themselves off from God, he readily accepted his new position. God does not abandon the couple to him, but He does give the couple some of what they want – a partial separation from Him. If He had given them everything they wanted – a full separation from Him – they would have been subjugated to the evil spirit immediately. Nevertheless, when the couple *chose* to separate themselves from God, they weakened the influence of God upon them – their awareness of His beauty, goodness, and sacredness – and so allowed themselves to come under greater sway from the evil one. Though God's influence was still stronger than that of the evil one, it was diminished because of the first couple's choice to separate themselves from Him (and His goodness and love). This had a myriad of consequences.

II. The Consequences of Original Sin – Back to top

There are two major consequences of original sin – the fall of our first parents:

- 1. Interior consequences decreased awareness of God and concupiscence.
- 2. Exterior consequences increased antipathy between each person and God and between each person and others as well as loss of the exemption from death.

II.A The Interior Consequences of Original Sin

When our first parents committed the first sin, and a partial separation from God occurred, they lost the self-control that came from their strong sense of God's presence, sacredness, and goodness. The weakening of their awareness of God led to an increased sensitivity to their sensual desires and passions. These sensual desires combined with egocentric desires, leading to a strong interest in power, material possessions, sexual indulgence, and self-assertion (concupiscence).

This increased interest in sensual and egotistical desires did not eliminate free will – or lead to a complete fall (corruption) of human nature. Human beings remain free to choose

between sensual-ego desires and sacred-moral-empathetic desires. Though the beauty, holiness, and lovability of God's strong presence had diminished (allowing sensual and egotistical desires to grow more prominent to consciousness), God did not completely withdraw His presence from human beings. His numinous and sacred presence were still influential – and His influence through conscience and empathy could still be felt. Indeed these influences still had more prominence than sensual and egotistical desires – though they were significantly weakened. So, one might roughly say, human nature was still at least "51% good – and free will was still oriented at least 51% toward God and the good."

The outcome of the fall did not pertain to the first parents alone. The consequences of their sin continued to affect their progeny – generation after generation. This had two additional effects:

- 1. Our interior life was more subject to influence by the evil spirit who, after the first sin, was able to deceive and tempt us more easily.
- 2. The interior state of human beings became like that of a battleground where we had to exert effort and concentration and even fight to resist temptation and stay on the pathway to God and virtue.

Prior to the time of Jesus, the influence of the evil spirit had become so prominent that the vast majority of humanity was pressed into servitude and slavery, and the vision of the goodness of every human being was almost completely eclipsed. There was a callous disregard for the sacredness and goodness of human life, and the mentality of the Roman Coliseum – where people delighted in the shedding of innocent blood – became commonplace. As Jesus put it, "Satan had become the prince of this world."

Jesus saw his mission as driving out Satan from his place of prominence. He had a plan to do this – to give His life of unconditionally loving self-sacrifice, to give his teaching about his Father and the primacy of love, and to give His Holy Spirit to influence and encourage us interiorly and exteriorly:

Now is the time for judgment on this world; now the prince of this world will be driven out. And I, when I am lifted up from the earth, will draw all people to myself (Jn. 12: 31-32).

The sacrament of baptism – Christian initiation -- would have two incredible effects. First, it would incorporate us into the Church – the very mystical body of Christ – which would not only guide us through its teaching authority and the example of its saints, but would allow the salvific intention and virtue of all of its members to course through the spiritual veins of one another. Secondly, it would give us the Holy Spirit with all of His gifts to inspire, guide and protect us – and to strengthen us interiorly to resist the temptation and deceit of the evil spirit and to help us contend with the effects of original sin.

II.B Exterior Consequences of Original Sin

Many of the exterior consequences of original sin follow from the interior ones. Thus we might expect that concupiscence, our weakened nature and the influence of the evil spirit, would create antipathy between us and God, us and one another, and even us and nature. As Rudolf Otto

noted (see Chapter Three above), the first pole of the numinous – emphasizing the fearful and overpowering nature of the "Wholly Other" was dominant for centuries. Furthermore, the enmity between human beings gave rise to a culture of slavery and callous disrespect for human life (as noted immediately above). Finally, our relationship to nature was filled with superstition and a pervasive sense that the material world was evil.

God's gradual revelation of himself to Israel – and His complete revelation of Himself through the words and actions of His Son – redeemed these corrupted external relationships. Only a few decades after the resurrection of Jesus, the Christian Church would initiate public welfare, public education, and public healthcare on an ever growing scale. As a result, larger numbers of slaves – educated by Christians – began to have influence within the Roman bureaucracy – as Christianity swept over the Roman Empire. By the time Constantine I issued the Edict of Milan (in 313) – stopping the persecution of Christians, giving them legal status, and in some sense preferential status – many of the Christian Church's practices with respect to education, healthcare, and public welfare had softened the cruelties of Roman culture and weakened the institution of slavery.

Jesus had not only given humanity the means to contend with the *interior* effects of original sin but also its exterior effects as well. To the extent that Christian evangelization is successful, and that the Christian Church remains faithful to the teaching of Jesus and His call to holiness, the interior and exterior effects of original sin will never rise to its former prominence. So it is incumbent upon us to use the gifts of our baptism, to deepen our faith, and to share that faith with as many as possible. For as the mystical body of Christ increases, the influence of our weakened nature and the evil spirit (who works through it) will decrease.

There is one more external effect of original sin that must be considered – the loss of our exemption from death. God created the first human beings by infusing in them a unique transphysical soul, which was meant to be eternal by its very nature. ²⁴² Our bodies – which evolved over a long period of time – were significantly influenced by the presence of this transphysical soul – developing an ever more refined cerebral cortex to mediate the soul's 12 capacities to our material embodiment. When God infused a soul into the first human being, the body took its lead from the soul – not vice versa – and so human beings were exempt from death. However, the first man and woman gave credence to the suggestions of the evil spirit, and so committed the first sin by wishing to be separated from God – so as to do things on his own as a "little god." When this occurred the first man and woman lost their natural exemption from death - and their souls no longer exerted incorruptibility over their bodies. Their souls remained incorruptible, but their bodies would die – being corrupted by the same sin that ushered in concupiscence and the increased influence of the evil spirit. Jesus' redemptive self-sacrifice did not overcome the necessity for the body to die – but it did much more. If we remain faithful to Him, He will glorify our bodies – divinizing, transforming, and spiritualizing them so that they resemble His own risen body. Once again, the effects of original sin would be overcome by the redemptive act of Jesus and our faithful following of his teaching and way.

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²⁴² See the medical studies of near death experiences above in the first chapter of this volume. See also Volume 3 (Chapter Five) on the resurrection of Jesus and its effect upon us.

It is important to note that Jesus' redemptive act is not reserved only for professed Christians – its effects for negating original sin and bestowing the resurrection extend to all human beings who "seek God with a sincere heart, and, moved by grace, try in their actions to do his will as they know it through the dictates of their conscience – those too may achieve eternal salvation." In its Pastoral Constitution of the Church – the Second Vatican Council describes how the actions of Jesus help us contend with the lasting effects of original sin – and how his saving work extends to all people who seek God with good will:

The Christian is certainly bound both by need and by duty to struggle with evil through many afflictions and to suffer death; but, as one who has been made a partner in the paschal mystery, and as one who has been configured to the death of Christ, he will go forward, strengthened by hope, to the resurrection. All this holds true not for the Christian only but also for all men of good will in whose hearts grace is active invisibly. For since *Christ died for all*, and since all men are in fact called to one and the same destiny, which is divine, we must hold that the Holy Spirit offers to all the possibility of being made partners, in a way known to God, in the paschal mystery.²⁴⁴

III.

Reconciling Contemporary Science and the Doctrine of Original Sin Back to top

Much has been made about a conflict between the perspective of the natural sciences and the Church's teaching on original sin. There are no doubt challenges to contend with, but these are by no means overwhelming. The most pronounced challenges are as follows:

- 1. Who are our first parents?
- 2. Monogenism versus polygenism.
- 3. Was there suffering and death before the fall?

We will consider each in turn.

III.A

Who are Our First Parents?

The name "Adam" means "red earth," and the name "Eve" means "life" in Hebrew. These names are obviously symbolic – "formed from the earth" and "giver of life." Catholics can believe that the first man and woman evolved from previous species – from *Homo erectus/Homo ergaster* and then *Homo heidelbergensis* and then *Homo neanderthalensis* to the first species of *Homo sapiens*, and then to the second species of *Homo sapiens* (*Homo sapiens sapiens*). It would be reasonable to assume that our first parents are connected with the initial emergence of *homo sapiens sapiens* 200,000 years ago, but the only definitive criterion for their emergence is that they are the first to receive a unique transphysical soul from God, making them in His image and likeness, and giving them the above twelve capacities (including free will).

²⁴³ Flannery 1975, p. 376; *Lumen Gentium*, Chapter II (section 16). This quote comes from *Lumen Gentium* The Dogmatic Constitution of the Catholic Church – which enjoys the highest degree of magisterial authority. ²⁴⁴ Flannery 1975, pp. 923-24; *Gaudium et Spes*, Chapter I (section 22). Italics mine.

Must our first parents be associated with the second generation of *Homo sapiens* (*Homo sapiens sapiens*) or could they have been in the first generation of *Homo sapiens* – from which a subspecies (*Homo sapiens Neanderthalensis* — who interbred with Neanderthals) also emerged? This is possible because the only defining criterion for the first man and woman is that they are the first to have received a unique transphysical soul from God — and that they had progeny giving rise to the rest of humanity whose defining characteristic is the presence of that transphysical soul from God.

There is also established evidence that the whole of humanity today has one common female ancestor – named "Mitochondrial Eve" whose mitochondrial DNA is integral to the genome of every human being around the world (without exception). Mitochondrial DNA is transmitted through mothers, but all human beings possess it. We also have a common male ancestor – named "Y chromosome Adam" – who is the origin of the male "Y" chromosome. Mitochondrial Eve and Y chromosome Adam probably lived around the same time (200,000-300,000 years ago) and came from a similar region (southwestern coastal Africa – around the border between Angola and Namibia near the Atlantic Ocean).

Were these our first parents? Though it may be tempting to think so, we should not jump to this conclusion because Mitochondrial Eve may never have known Y chromosome Adam and they may have come from different areas of the southwest African coastal region. Again, the only criterion we have for the emergence of our first parents is the infusion of a unique transphysical soul by God.

Recent studies by the famous linguistic philosopher, Noam Chomsky, and the MIT scientist and engineer, Robert Berwick may give us pause about associating our first parents with Mitochondrial Eve and Y chromosome Adam, because the infusion of a transphysical soul may well have occurred much later (between 70,000 to 100,000 years ago) – to a man and woman of the same lineage as Mitochondrial Eve and Y chromosome Adam. Why so? Recall that the infusion of a transphysical soul in an evolved *homo sapien* is the definitive marker of a human being (as distinct from a pre-human hominid). The infusion of this soul need not be coincident with the origin of our common genetic heritage (Mitochondrial Eve and Y chromosome Adam). Chomsky and Berwick give us some clues that the first infusion of a soul (though they would not phrase it this way) occurred 70,000 – 100,000 years ago.

In two well-founded studies, ²⁴⁵ Chomsky and Berwick show that human language (defined by the criterion of the classical hierarchy of syntax) is completely unique to humans, and that the emergence of language very probably occurred around 70,000 to 100,000 years ago. They note that the origin of language in human beings at this time is completely enigmatic (i.e. unexplained by any known genetic, biological, or physical cause). When we piece together these discoveries, they have all the required signs for indicating a possible origin of a transphysical soul.

http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001934

²⁴⁵ See Noam Chomsky and Robert Berwick, 2015 *Why Only Us: Evolution and Language* (Cambridge: MIT Press), see also Noam Chomsky, R. Berwick, J. Bolhuis, and I. Tattersall, 2014 "How Could Language Have Evolved?" in *American Society for Microbiology: Microbe*

Recall from the Chapter Four above that conceptual language requires heuristic notions that cannot be explained by either physical processes or by the processing of experiential data. This suggests that they are innate and expressed through some kind of *transphysical* medium. The Nobel Prize winning physiologist, Sir John Eccles, and his many colleagues in physics have argued that this transphysical medium is a soul, which is mediated to the brain through quantum fields.²⁴⁶

This forms an interesting coincidence with the discoveries of Chomsky and Berwick. Perhaps the reason that the origin of language is completely enigmatic (unexplained by any known genetic biological or physical process) is because language *cannot* in principle be so explained. If Eccles, Beck, and others are correct in asserting that the heuristic notions — underlying conceptual ideas and the use of syntax — must occur through a transphysical medium, then the only point at which syntax (and syntactical language) could occur is when such a medium (i.e. a soul) occurs in evolutionary history. This would explain why (as Chomsky and Berwick show) language is unique to human beings and its origins are enigmatic. If Chomsky and Berwick are correct in asserting that this completely original event (the origin of language in evolutionary history) occurred 70,000 to 100,000 years ago, we might infer that this is the point at which a transphysical soul (presumably of our first parents) originated in evolutionary history.

So what else happened 70,000-100,000 years ago? Since human beings had the capacity for abstract syntactical language, they could communicate something about something – and they could answer the questions "What?" "Why?" "Where?" "How?" and "How many?" This enabled them to express themselves geographically, temporally, causally, symbolically, and even transcendentally. This led to a tremendous explosion of exploration, discovery, art, and religion.

Let us examine a few of these new developments. First, human beings seemed to have stayed within the vicinity of the border between Angola and Namibia (in Africa) for over100,000 years – between Mitochondrial Eve-Y Chromosome Adam (200,000-300,000 years ago), and the great migration out of Africa (starting 70,000-100,000 years ago). In other words, sometime after receiving the capacity for universal, syntactical language, human beings began to migrate from an area in which they lived for over 100,000 years and began to spread all over Africa. A few thousand years later, they are moving out of Africa into the Near East and Middle East – and from the Near East and Middle East into Europe and Asia – and from Europe and Asia to the northernmost areas of Siberia. Then they crossed the Arctic land bridge (which existed at that time) into the northernmost part of America, and then proceeded south, so that in a few thousand years they would move from the northernmost point of the western hemisphere to the southern tip of South America. What explains this radical transition from a rather sedentary human community on the border of Namibia and Angola, to world exploration? Was it simply a lack of food? Simply a desire to escape tribal enemies? Though this may have been part of the reason, it does not explain the rapid and world-wide expansion of the human population even on the oceans to Indonesia and even Australia. I would submit that there is something more than simple need – there was a "spirit" of curiosity and adventure – something absent in our most proximate ancestors – that engendered the spirit to discover and explore.

Something else also happened in this period -- human beings started burying their dead – treating the remains of their deceased with respect – and burying them with rituals and objects indicating a belief that they would survive their physical death (see, for example, a burial site with these objects from this

period – 90,000 years ago — in the Skhul cave at Qafzeh, Israel¹³⁹). If humans did not believe in their spiritual nature or life after death, we might ask, "Why did they bother to bury their dead with great respect — and with rituals and objects?" And if they did have an awareness of their spiritual nature and life after death, we might ask the further question, "Where did they get this awareness from?" After all, over 100,000 years of ancestors did no such thing — and then suddenly,

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human beings seem to be doing it as a universal practice. Did this spiritual awareness – this awareness of something beyond the physical world also come from our transphysical soul?

We also see another development subsequent to burial and religion – art and symbolic representation. There are cave drawings with religious significance dating back to about 40,000 years ago in Leang Lompoa in Maros, Indonesia. ¹⁴⁰The drawings of animals are rather well developed and have symbolic significance, indicating that they were probably preceded by more primitive attempts at art and symbolization. Many scholars believe that the animal drawings have sacred and cultural symbolic significance. ¹⁴¹

In the same period, numeration systems (the precursor to formal mathematics) originated. Counting or tallying by using fingers on the hand undoubtedly preceded tallying with objects (such as sticks). This in turn preceded written numeration. Tallies made by carving notches in wood, bone, and stone were used for at least forty-thousand years before the development of written numeration systems. ¹⁴² (There is no evidence of abstract numeration in any other species except human beings. Did this originate from our heuristic notion of "how many?" – And can this innate heuristic notion (standing at the foundation of all quantitative relationships) be explained by programming of the brain? As noted earlier, it is quite unlikely. For it is one thing to program a brain (or computer) to count, but quite another thing to understand counting itself and its significance. It is these abstract concepts that elude mere programming or patterning of the brain. As Gödel's theorem reveals humans do mathematics very differently from computers. The latter follow programs while the former invent them. The former have an abstract understanding of numeration itself in all of its permutations, while the latter lack all such understanding.

Human communities having durable structures, some specialization of labor and commerce, and a sense of social norms began to arise as a result of migrations, differentiated linguistic systems resulting from those migrations, and the ability to barter and exchange on the basis of counting and tallying. Religion probably had a part to play in the origin of social norms underlying these settlements. It seems that as migration occurred, some groups stayed behind while others continued to migrate. Those who stayed behind used their linguistic and numeric capacities to specialize labor, and their religious instincts to solidify basic social norms and rules.

Why did this explosion of universal language, exploration and discovery, abstract numeration, religion, art, and social norms occur? Up to now we have only surmised that all of these events were interrelated and originated about 70,000 years ago – and that merely physicalist explanations (such as brain

¹³⁹ See K. Kris Hirst Qafzeh Cave, Israel: Evidence for Middle Paleolithic Burials Evidence for 90,000 Year Old Human Burials in ThoughtCo https://www.thoughtco.com/qafzeh-cave-israel-middle-paleolithic-burials-172284

¹⁴⁰ See Jo Marchant in Smithsonian January 2016). See also cave drawings approximately 50,000 years old in the caves in Pettakere on the island of Sulawesi in Indonesia.

¹⁴¹ See Ghosh, Pallab, "Cave paintings change ideas about the origins of art". http://www.bbc.com/news/science-environment-29415716

¹⁴² See George Ifrah 2000 Universal History of Numbers, pages 64-67.

rewiring) may well be inadequate. In light of this, we have speculated that there may be a transphysical cause of these capacities – a transphysical cause of the heuristic notions underlying syntactical language and mathematics – a transphysical cause for human interest in religion and art – and even a transphysical cause of our indomitable

spirit of discovery and adventure.

So what might we conclude about our first parents? In addition to the fact that both of them had a unique transphysical soul (giving them the above twelve capacities – including the capacity for syntactical language), it seems likely that they lived about 70,000 to 100,000 years ago in Africa. Since migration of modern humans out of Africa occurred around 60,000 years ago, it seems likely that the "huge non-evolutionary (non-biological and non-physical) leap" giving rise to linguistic and conceptually capable human beings may have incited their rapid and successful migration throughout the rest of the world.

They first migrated to India, the Middle East, southeastern Asia, and then to Central and Northern Asia, and then to Central and Northern Europe. Approximately 20,000 years ago during the last glacial maximum (when there was a land bridge connecting northern Siberia to Alaska due to precipitous drops in ocean levels), our ancestors made it over to the Americas – and within 1,000 years, made it to the southernmost tip of South America. After that time, the agricultural revolution led to an explosion of population, which has continued ever since.

III.B Monogenism versus Polygenism

"Monogenism" refers to the view that the first generation of human beings was *one* couple – a first man and a first woman. "Polygenism" refers to the view that the first generation of humans had more than one couple – which might be as many as thousands. In the same encyclical in which Pope Pius XII allowed Catholics to believe in evolution, he seems to have proscribed belief in polygenism with these words:

See Friedrich Beck and J.C. Eccles, John C. 1992, "Quantum Aspects of Brain Activity and the Role of Consciousness," *Proceedings of the National Academy of Sciences – USA*. Vol. 89, pp. 11357-11361.
 See also John Eccles 1970. *Facing Reality: Philosophical Adventures by a Brain Scientist* (Heidelberg: Heidelberg Science Library). See also Eccles 1983. *Mind and Brain: The Many-Faceted Problems*. (St. Paul Minnesota: Paragon Books). See also Eccles 1989. *Evolution of the Brain: Creation of the Self* (London, UK: Routledge). See also 1990. "A Unitary Hypothesis of Mind—Brain Interaction in the Cerebral Cortex" in *Proceedings of the Royal Society – Biological Sciences* B 240, pp. 433-451.

When there is a question of another conjectural opinion, namely, of polygenism so-called, then the sons of the Church in no way enjoy such freedom. For the faithful in Christ cannot accept this view, which holds that either after Adam there existed men on this earth, who did not receive their origin by natural generation from him, the first parent of all; or that Adam signifies some kind of multitude of first parents; for it is by no means apparent how such an opinion can be reconciled with what the sources of revealed truth and the acts of the magisterium of the Church teaches about original sin, which proceeds from a sin truly committed by one Adam, and which is transmitted to all by generation, and exists in each one as his own.²⁴⁷

Pope Pius XII seems to have hedged the definitiveness of his declaration against polygenism by stating, "it is in no way apparent how such an opinion [polygenism] can be reconciled with that which the sources of revealed truth...." Does this mean that if polygenism can be reconciled with the sources of revealed truth about original sin, then polygenism would be doctrinally acceptable? Though there is debate on this issue, theologians today believe that Pope Pius XII left the door open to this possibility if the condition in his declaration could be met.

Whatever the case, Monogenism is compatible with the evolutionary picture of the emergence of the first syntactically capable hominids (from which we infer the presence of a transphysical soul). These first hominids were of the lineage of Mitochondrial Eve and Y chromosome Adam. It is not necessary to postulate the existence of more than two human beings with transphysical souls at this originative moment. All that is required, if Chomsky's and Berwick's discoveries are correct, is one couple who could have propagated progeny over hundreds of generations to give rise to 10,000 or more human beings before their migration out of Africa. Inasmuch as God must be the source of such a transphysical soul (since a physical cause cannot generate a transphysical effect), we must further assume that God infused a unique transphysical soul within all subsequent generations of the first parents' progeny.

According to scripture and church doctrine, our first parents committed the first sin, which weakened their nature. As a result, they lost their exemption from death and felt the effects of concupiscence because the presence of God to their souls was weakened, making them more easily tempted and deceived by their sensual passions and the evil spirit. Though these effects are present today, they are mitigated by the redemptive act of Jesus, the presence of His Church, and the presence of the Holy Spirit.

²⁴⁷ Humani Generis par 36-37.

III.C Was There Suffering and Death Before the Fall?

Scientific evidence indicates that there was death and physical pain before the fall (approximately 70,000 to 100,000 years ago). We have evidence of microbial death dating back 3.5 billion years, and there were certainly vertebrates with a central nervous system (capable of feeling pain) during the Jurassic period 230 million years ago. Recall what was said above by Pope Pius XII in *Divino Afflante Spiritu* about the purpose of the bible – to give sacred truths necessary for salvation, but *not* necessarily to give accurate scientific descriptions and explanations of our physical universe. How does this affect the idea that death and suffering came into the world because of the sin of Adam? We cannot interpret it in a way that will contradict the clear fossil evidence showing that death and physical pain was present on the earth prior to 70,000 to 100,000 years ago. Indeed there is no need to do so.

As noted above, all microbial, plant, and animal life – including that of higher primates, and the progenitors of *Homo sapiens* – experienced physical death before the arrival of our first parents (70,000 to 100,000 years ago). The arrival of our first parents coincides with the infusion of a transphysical soul within them, giving them an exemption from bodily death. Since their transphysical soul was the dominant form of their body, they had this exemption for a little while prior to the fall. However, when they sinned against God by desiring autonomy and separation from Him, they lost that exemption – and their bodies would suffer the same corruption as their progenitors (though their souls would live on after bodily death).

What about suffering? There are two kinds of suffering:

- 1. The feeling of physical pain and some kinds of emotional pain (which some animals share in common with human beings), and
- 2. Reflective Suffering which comes from awareness that "I" am the one who is suffering. Humans alone have this experience because of their self-reflective transphysical soul.

Dogs experience physical and some kinds of emotional pain, but human beings can grow *depressed* thinking about the ongoing nature of that pain – or the seeming meaninglessness of that pain – or the potential for that pain to increase, etc. Self-reflectivity also heightens *emotional* pain. A dog can feel sad (and whimper) when his master leaves the home, but human beings can reflect upon the pain of abandonment or loss, and feel depressed because of it. Thus we see that self-reflectivity engenders a whole new height – or perhaps better, depth — of both physical and emotional pain.

Human beings also have a further kind of reflective suffering arising out of their capacity for conceptual ideas. We can anticipate future pain – which is beyond the scope of higher primates – and above all – anticipate death. Even those with great faith must face this most challenging form of what might be called "reflective conceptual suffering." Heidegger called it "being toward death" which he believed to be the entire context through which we live.

So what is the point here? As the old cliché goes — "There is suffering — and then there is *suffering!*" There is the physical and emotional pain of animals, which is no doubt quite real, but then there is the very significantly heightened physical, emotional, and conceptual pain of self-

reflective human beings – which is *categorically* different from that of animals. By now it will be clear that this kind of suffering has its origins in self-consciousness, which in turn, has its origins in our transphysical soul (see the rationale for this in Chapter Four above—human versus artificial and animal intelligence). When God infused a transphysical soul into our first parents, he gave them *potential* to suffer *reflectively*—to combine their powers of anticipation, self-awareness, and the above twelve capacities with physical and emotional pain.

Why only the *potential* for this categorically different suffering? When human beings were closely united to God in their inner experience and they enjoyed an exemption from death (before original sin) their self-reflective acts on physical pain would have been interpreted in the light of God's presence—along with the meaning and trust coming from Him. Further, there would be no death to anticipate because their sense of eternal life would have been quite palpable in light of God's presence.

By separating themselves from God in the first sin (obeying the evil spirit's suggestion that they could be gods and that God had unjustly withheld this from them), the light and grace of His presence was partially withdrawn—and without it the reflection process focused on the bodily death they would surely experience, the sense of emptiness, alienation, and loneliness coming from His absence, and the absence of meaning and light to guide and fill their reflection process. If God had withdrawn completely they would have collapsed into a total abyss of emptiness, loneliness, alienation, death anxiety, guilt and intellectual darkness—a reflective emotional and conceptual nightmare. But God did not do this—He gave them what they wanted—*only* insofar as it would not destroy their free will, emotional stability, rational capacity, capacity for love and capacity for moral reflection. At this point their suffering would be intensified by their reflectivity and conceptual capacity, but it would not be utterly daunting and vexing. And so we might say a new kind of suffering came into the world with original sin—a categorically different heightened kind of suffering produced by self-reflectivity not fully illumined by the wisdom, presence and grace of God.

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