# Psychology and the Soul: A New Perspective on an Old Interpretation

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This article presents a new perspective on the nature of the human soul, the human body, and the body-soul unity of the person. It is proposed that the material coded structure of what we are naming DNA/RNA plus more includes other relevant coded information that has been or might be found (e.g., context). This material code serves as an analogy of a transcendent structure that represents the perfect, ideal, or spiritual soul of the person. Moreover, the actual, material, and formal structure of DNA/RNA plus more has no physical similarity to the structure of the body; nevertheless, the material code represents and gives form to the physical body. Similarly, it is assumed that the transcendent DNA/RNA plus more, or soul, also represents and gives form to the body, but in its perfect, spiritual, and immortal sense. This paper, thus, presents the analogy that the soul is to the body as the spiritual DNA/RNA plus more code is to the material DNA/RNA plus more code. Despite birth defects, we argue that there is a perfect non-material code. Such a perfect code, we propose, actually exists at a spiritual, transcendent level. It is the material code that has non-normative defects, resulting from imperfect material expression. However, the perfect transcendent code, or soul, continues to animate the person throughout life and provides distinctively spiritual capacities (e.g., reason and will). At the death of the body, the immortal soul continues. In a Christian perspective, the soul represents the form of the glorious body of each person existing in heaven after death. The understanding of a transcendent soul is supported by current research on the human brain and mind and by our capacities for syntactic language, abstract thought, self-consciousness, and moral agency. A supporting analogy is made on how persons practice certain embodied actions expressing non-material forms as they exist in the performer's mind, for example, in the performance of classic sonatas or pieces of jazz. In addition, the connections and similarities to traditional older interpretations of the soul, identified by Aristotle and Aquinas, are addressed. Implications for this body-soul unity for reintroduction into personality theory and the virtues are briefly discussed.

There is a need in contemporary psychology for a model or framework of the person that integrates theological, philosophical, and psychological perspectives of the person. Many characteristics of such a model would distinguish it

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from existing theories of psychology and personality. First, it would provide a solid theological, philosophical, and, of course, psychological rationale for the human nature of the person. Second, and this is our concern here, such a new framework, with its theological and philosophical underpinnings, would demonstrate the value of including the soul in the concept of the person in the psychological sciences, as is often done in philosophy and theology. We present here an approach that draws on Catholic and non-Catholic, classic sources that include Sacred Scripture, Aristotle, Aguinas (who is a frequently used Christian Pre-Reformation source), and John Paul II's contemporary thought in a realist personalist perspective. We also include a number of contemporary secular and Protestant contributions. We present a specific account of a body-soul unity in psychology that could be

used by such a model or framework. To this end, we address the form of our material body as it is initially expressed in what we are naming the DNA/RNA plus more code. It is proposed that the material structure of DNA/RNA plus more serves as an analogy of a transcendent structure that is the soul of the person. By "plus more" we mean many other factors already found to be involved in the development of the person at the initial DNA/RNA-genetic level. These factors include the context of the growth process, which at present appears to be so complex as to make material causality unable to explain the developing form and its purpose. In addition, knowledge of the different stages of development has made clear the presence of life from the very beginning (Condic, 2020; Condic & Condic, 2018; Talbott, 2010, 2020).

In addition, we propose that a perfect non-material, spiritual code, similar to our physical *DNA/RNA plus more* code, but without physical defects, appears at or before the time our physical codes comes into existence, which is at conception. The non-material code is not only the ideal form of the body, but is the basis for the spiritual qualities of persons throughout life. This spiritual or perfect code of the body, with its principles of animation, that is, the principle of life from the beginning, and of our spiritual capacities (e.g., reason and will), is how we define the soul.

Next, the non-materiality of the soul raises the question of different types of physical matter and spiritual existence, and the question of the relation between soul and body, mind and brain. We also must ask what happens when body and soul separate at death: What happens to the soul and what does it mean for our earthly life? We will look at some of neuroscience's answers to those questions, as well as the answers given in the Christian tradition. In order to understand the soul as something distinct from, and yet unified to, the body, we will draw an analogy to a musical performance. Finally, we take up briefly the reintroduction of the soul and its implications for psychology.

## Sources for an Account of a Body-Soul Unity in Psychology

A Catholic Christian Thomist approach to psychology assumes that the person is a single substance unity of body and soul. It also identi-

fies the value of recognizing a non-reductionist, non-materialist view of the soul. Modern psychology, for its part, almost universally omits any reference to the soul, with the early exceptions of Otto Rank (1930) and Carl Jung (1933). As far as we know, no established psychological approach even addresses the soul as a relevant issue. As a result, the idea of the soul never became a part of any major psychological theory of personality or psychotherapy. A relevant discussion of modern "soulless" psychology is presented by Hendrika Vande Kemp (1982). Apparently, the self, especially the autonomous self, has been psychology's replacement for the soul (Cushman, 1990; Gergen, 1991; Lasch, 1979; McMahon, 2020).

Attempts to revive the relevance of the soul in psychology are few (Johnson, 2007; Koole et al., 2006; Moreland, 1998; Vidal, 2011). A notable example of such a revival, though, is a book by the Christian psychiatrist Jeffrey Boyd (1996), appropriately titled, Reclaiming the Soul. In his intelligent cry in the wilderness, Boyd identified the absence of this concept even in holistic and humanistic psychology. Moreover, he noted many of the problems that arise from ignoring the soul, such as a lack of a basis for finding meaning in existence. More recently, there is a strong implication of the soul's relevance in the Christian psychology of Eric Johnson (2007) and in post-materialist neuroscience (Beauregard, 2012; Beauregard & O'Leary, 2007; Egnor, 2017). Such thinkers provide a neurological case for the soul as understood in a way compatible with Aristotle, Aguinas, and Christian positions (Beauregard et al., 2020).

A new model of the person could effectively use the term soul to mean the "animating principle and substantial [spiritual] form of the living human body" (Titus et al., 2020a, p. 26). This is also the traditional Catholic position (Catechism of the Catholic Church [CCC], 1997, §§ 362-368; John Paul II, 1993, § 48), as well as the position of Aristotle's philosophical psychology (350 B.C./1941b; 412a01-413a10) and Aguinas's philosophy of human nature and the soul (1273/1981, I, qq. 75-76, I-II qq. 1-5). Of course, there are several interpretations of this relationship of body and soul, and different terms are used to characterize it (Berkeley, 1710/2003, Part I, Sections 17-18; Churchland, 1981, 2007; Descartes, 1644/1983, Part I, Section 63; 1641/1996; Huxley,

1917; Monod, 1971; Swinburne, 1997). The Catholic Christian tradition often refers to this deepest dimension of the person as the "heart" or the "mind" (Mt. 22:37–40; Lk. 10:27; Mk. 12:30; Deut. 6:5; CCC, 1997, §§ 298, 368).

### The Form of the Body and DNA/RNA Plus More

This article proposes that the soul is the animating principle and the spiritual form of the embodied human person and that the soul can be usefully understood by a comparison to the *DNA/RNA plus more* code. This code is expressed by the specific material form (particular matter) of the person in the biological structure of the body. This material *DNA/RNA plus more* code requires the spiritual principle of the transcendent code for animation of the person and the expression of distinctive capacities.

From the perspective of the psychological sciences, how might one understand the "form" of the living human body? The initial way to understand the form of the body is that the material code expresses this specific material form. The code is expressed by a person's unique form and does not exist before the uniting of the ovum (female gamete) and sperm (male gamete). During conception, each gamete brings its contribution to the new genetic code of the particular person (Condic, 2020). The form of the body is explained by noting that every cell in the body first comes into existence through being formed by the *DNA/RNA plus more* code.

Another way to understand the form of the body is to note that the majority of the cells of the human body are replaced over a few days or months or sometimes a few years (Condic, 2020). It was once thought that brain neurons were an exception, but, more recently, it has been discovered that "specific structures of the adult brain contain neural stem cells [and] can self-renew and generate terminally differentiated brain cells, including neurons and glia" (Bobkova et al., 2020, p. 108). Cell replacement represents bodily restoration, since each older cell must be exactly replaced by the newer cell. Given this cell replacement, a latent pattern, blueprint, or form must exist in the body that allows the body to restore itself while keeping the recognizable, unique configuration of each person's body. Therefore, it is reasonable to assume that the material DNA/RNA plus more contains the pattern for initial cell existence and development and later for cell restoration or

replacement. Keep in mind that the very complex material code itself must also be replaced or duplicated in every new cell. Such a massive, complex, detailed, and continuously repeated cell replacement is indicative of the presence and influence of the material *DNA/RNA plus more* code and is quite remarkable.

Max Delbrück (2013), biophysicist and Nobel laureate, found philosophical support for the concept of the DNA code in Aristotle's reflections on the observations of how animals and plants develop apparently from a preexisting pattern or a "preimposed plan." Delbrück, moreover, has found further philosophical insights from Aristotle's understanding of an unmoved mover to help fathom the communication of the human life form that conceptualizes both stability and change in a living being (Aristotle, 350 B.C./1941c, 641a24-25). An unmoved mover is the source of structure, essence, and form; it causes change in other things, but itself does not change in form. Delbrück argued that such an "unmoved mover perfectly describes DNA. DNA acts, creates form in development, and it does not change in the process" (p. 136).

It is also important to note that *DNA/RNA plus* more will be expressed by the form of the body even though it does not physically resemble the body; that is, a code does not have to look like what it later forms. For instance, an acorn does not resemble what it later forms, an oak tree. Neither does the *DNA/RNA plus more* bear any resemblance to a person's psychological characteristics, obviously; however, our genetic code contributes substantially to one's personality (Plomin et al., 2016), as, for instance, in the case of a person's depressive disposition.

It is known that our material *DNA/RNA plus more* is a biological code for our whole body, brain included. This code which, as noted, does not look like our body, is that part of nature known to science to contain the form of our body, a form that will be expressed starting at conception and in our subsequent bodily development and existence.

The material aspect of our code will have various identifiable imperfections that are birth defects or congenital disabilities (e.g., Down's Syndrome)—usually of a minor nature, but, of course, sometimes they are significant. Nevertheless, our recognition of a human person and human nature occurs despite these defects.

Such defects are recognized as non-normative and are signs that a better code can be conceptualized as existing.

### A Perfect Transcendent DNA/RNA Plus More Code or Soul

It is not difficult to conceptualize a perfect, transcendent, non-material, spiritual, and, of course, unique "code" for each person, this code having no defects. This ideal code lies above a person's imperfect and expressed material code, our normal DNA/RNA plus more. We propose that a perfect, spiritually animating DNA/RNA plus more code, or soul, exists at a transcendent level of the person. This spiritual code initially and continually animates and structures our material code and continues to spiritually transcend, animate, and interact with our body through this material code until our bodies die.

Of course, there are not two human souls, one material and one spiritual or transcendent (Aguinas, 1274/1981, I, 76.3). Our material code is not our soul. Instead, the divinely created and animated transcendent spiritual code is the soul; this soul both effectively animates and structures the material properties of the body through our material DNA/RNA plus more code. The human soul, thus, is the effective and formal principle of life that makes the bodily capacities participate in the one soul (Aguinas, 1273/1981, I, 76.3, 77). This soul makes possible the person's human mind (Nagel, 2012). This soul is the basic source or condition of our identity, intellect, and will. It is the basis of our capacity for distinctly human knowledge: experiencing life and death, understanding moral responsibility, and, also, having self-conscious knowledge commonly expressed in concepts and language.

According to Aristotle (ca. 350 B.C./1941a, 1941b) and Aquinas (1273/1981, I, qq. 75-76), we can recognize the intellectual character of the soul in the rational, sensory-perceptual-cognitive, emotional, and volitional capacities of human beings, which demonstrate an intellectual-spiritual and moral nature. Examples of such intellectual-spiritual capacities include self-consciousness, intellectual conceptualization, syntactic language, free will, certain social relationships, moral responsibility, and complex and creative tool development (Berwick & Chomsky, 2016; Bikerton, 2014; Deacon, 1997; Vitz, 2017). Examples of the expression of

these capacities include wisdom, understanding, knowledge, practical reason (prudence), justice, courage, and temperance.

### The Glorious Body

Furthermore, and of great importance, there are compelling Christian reasons to consider that humans have immortal, resurrected, and glorious bodies in heaven, after death (1 Cor. 15:52-55). First, the many near-death reports make it clear, assuming their validity (Alexander, 2012; Spitzer, 2015), that we are recognizable to others in heaven. We are also conscious of our own personal identity, which is recognized by the other as well. These recognitions of others and ourselves by others are accompanied by an experience of the gloriousness of our bodies, and the absence of deficiencies, as when individuals blind since birth report having been able to see during near-death experiences (Ring & Cooper, 1997). In short, in heaven, we have a glorious body-soul unity, which can be interpreted as the expression of our perfect, still-animated, transcendent, spiritual code, or the soul.

Second, St. Paul's experience (2 Cor. 12:2-4), and the Catholic Christian belief in body-soul unity until death, is followed by the expression of a new, glorious body at the resurrection (Lk. 23:43; CCC, 1997, §298). This indicates that the spiritual state of the person after death is not limited by prior earthly restrictions. Our immortal souls survive bodily death and our perfect transcendent body comes alive through the Spirit in heaven (Rom. 8:11; CCC, 1997, §298, §366 & §988).

# The Significance of the Different Types of Matter for Life

The body-soul unity that composes the human person on earth is significant for understanding different types of matter. The soul does not, for example, animate undifferentiated matter (prime matter). Rather, the soul animates particular matter (Aquinas, 1273/1981, I, 119.1) that has its own material, biological form before being united to a human soul (Aquinas, 1273/1981, I, 75.4). This particular matter preexists the human being. When each human life begins, the unique particular matter of the ovum and of the sperm at the moment of procreation are united through the human soul (Aquinas, 1273/1981, I, 119.2; CCC, 1997, §298 & 366). We propose that the soul of the particular person

is embodied at that specific time. Throughout human life as well, other particular matter (in different forms) is brought into the body-soul union, according to the need of the person and the adequacy of that particular thing (such as food and water).

The preceding explanations demonstrate the coherency of assuming, in a Catholic Christian framework for psychology, that such a transcendent non-material soul serves as the animating principle and substantial form of the living human body. The soul, as the source of our transcendent human mind, with self-consciousness and moral agency, is unified with our physical body until death.

### The Question of Dualism

There is a longstanding debate about the nature of the person's body and soul. Different views are seen in different schools of psychology and philosophy (and religion). For instance, materialists claim that the body as matter alone can explain human phenomena, which reduces the mind and any spiritual experiences to the body and the brain (Churchland, 1981, 2007; Huxley, 1917; Monod, 1971). Idealism and immaterialism seek to protect the idea of soul by affirming that the person is simply a spirit and only accidentally an embodied being (Berkeley, 1710/2003, Part I, Sections 17-18). Idealists deny the need for the human body in all higher human mental or intellectual experience (Descartes, 1644/1983, Part I, Section 63, 1641/1996). In between these two extremes are different sorts of affirmations of the needs of both body and soul (Nagel, 2012). Furthermore, substance dualists claim that the body and the soul are separate substances (Swinburne, 1997). As already noted, the present position affirms that the human person is a single substance, body-soul unity.

# The Consequences of Earthly Life for the Soul and Its Continuity With Life After Death

From a Catholic Christian perspective, there will be difference, continuity, and novelty when comparing the earthly and, later, the heavenly expression of the spiritual code (soul). We suffer from the aging process and from accidents, trauma, and disease throughout life prior to death. However, the resurrected body-soul unity will be without both our inherited birth defects and the physical defects experienced

when our material code and body was affected by actions in our life in this world. This escape from all material imperfections is part of the glory of our heavenly body.

Nevertheless, because of the continuity between the earthly and heavenly experience of being a person, that is, a body-soul unity, there are consequences in heaven of our earthly actions. The life, death, and resurrection of Jesus Christ have implications concerning our moral actions that come from original, social, and individual sin. Christ is the source of the restoration (justification) and the transformation (sanctification) of the soul. For example, there is the continuance, restoration, and transformation of love, the capacity for which persists after this life (1 Cor. 13:8). In this world, we can store up or not store up treasures in heaven (Mt. 6:19-20). It is through our spiritual code, or soul, that our earthly life experiences exist in the life to come, including the goodness or evil of our actions (as praiseworthy or guilt-worthy or forgiven) and the influences of such acts on our souls (as an increased capacity to love) (Aguinas, 1273/1981, I, 77.8). There is continuity of such dispositions (virtues of the soul), since they became part of our spiritual code, or soul, during this life. The state of heaven for humans will involve both God's gratuitous, transformative gift and our developed capacity to receive it. There is the necessary redemption, transformation, and purification of the person after death, since God is love (1 Jn. 4:16). There is also the contingent or individual transformation of the person; humans will receive God's love and forgiveness according to how they have loved and forgiven others (Mt. 6:12; Mt. 25:34).

### **Body-Soul Code Resembles a Performance**

There are ways in which this proposed integrative unity of a spiritual code with the human body can be illuminated by comparison to familiar kinds of human experience. Consider a well-trained pianist who has a complete conceptual grasp of a piece of music. The musician's conceptual understanding is a non-material, mental or spiritual code of the music. In the current non-reductionist and non-materialist perspective, this mental understanding transcends its neural-brain representations, present sensations of the instrument used, and the memory of past performances. It also transcends the ex-

perience of the acoustic properties of the music, which the musician hears or imagines and compares to the conceptual code of the music. Nevertheless, this qualitatively different, higher understanding in the act of performance creates a unification of the transcendent mental code of the music and the musician's neuro-bodily response, including the musical sounds heard by the musician.

Somewhat analogous to the soul-body unity, the musician is conscious of the performance, involving the non-material higher-level conceptual understanding of the musical piece, such as a classic sonata or piece of jazz, which gets embodied through the performance. The musician might make a mistake or emphasize the passages in a disturbing way, just like the imperfect embodiment found in the material DNA/RNA plus more code. In the same sense, many other types of human response, such as the virtues of justice or courage, represent the integration of a mental understanding or a code with an embodied response, again often with a failure to perfectly represent or completely interpret the original mental concept or code. The human response can also involve a diverse expression of the mental code. For example, the particular expression of a virtue needs to be performed according to the nature and commitments of the particular person. For instance, the balance between fear and daring found in the expression of the virtue of courage is embodied by a mother somewhat differently than a father (Gross et al., 2020).

### **How Many Souls Do We Have?**

It would be useful to briefly summarize other aspects of the traditional understanding of the soul, drawing from Aristotle and Aquinas, while integrating insights from the neurosciences, as described from the perspective of a neurosurgeon (Egnor, 2017). The classical Aristotelian, Thomist position identifies three basic groups of human powers or capacities: vegetative (organic or neural), sense (sensory-perceptual-cognitive and emotional), and intellectual (reason and will). First, the vegetative capacities are the physiological, organic, and neural systems that serve essential human functions, including pulmonary, respiratory, and metabolic processes.

Second, the sense capacities are expressed both in the sensory-perceptual-cognitive pow-

ers (five primary senses and the higher-order perceptions, such as self-awareness, imagination, memory, and evaluation) and the emotions (sensory affect or appetite). The sense powers, without a complete experience of self, refer to "basic awareness," found sometimes in humans, especially in infants, and commonly in higher animals; humans normally have a self-consciousness connected to language (Vitz, 2017).

Third, there are the intellectual capacities found in intellectual cognition (intuition, understanding, reasoning, and language) and intellectual affect or appetite (volition or willing at foundational and discursive levels). These capacities constitute the basis of unique human self-consciousness (Vitz & Lee, 2020).

Aristotle and Aguinas held that these three capacities or levels interact in a psychosomatic or hylomorphic way and are not driven by three souls. Rather, the three levels express a single substance body-soul unity (Aquinas, 1273/1981, I, 76.3; Aristotle, 1941b, Book ii, Chapter 3). All three capacities-organic-neural, sensory, and intellectual-are rooted in human embodiment and are influenced by one's human spiritual capacity, but not all in the same way. They are interdependent. They evidence top-down influences on the person from reason and will; they also can influence the expression of the material DNA/RNA plus more code (Lipton, 2001; MacIsaac, 2014). They also evidence bottom-up influences from organic-neural capacities and sense conditions (brain and other organs).

### Neuroscience on the Immateriality of the Mind

lan Barbour, a philosopher of science and religion, has affirmed the interdependence of the organic-neural, sensory, and intellectual capacities. He said that neuroscience and theology support the view of human nature that understands "the person as a multilevel, psychosomatic unity who is both a biological organism and a responsible self" (Barbour, 2002, pp. 71, 72-78). Egnor (2017), a Catholic neurosurgeon, while affirming the interdependence of these three capacities and the relationship of the brain (embodiment) and the mind (spiritual intellect), reported that he has had scores of patients who are missing large areas of their brains, yet who have quite good minds:

I have a patient born with two-thirds of her brain absent. She's a normal junior high kid who

loves to play soccer. Another patient, missing a similar amount of brain tissue, is an accomplished musician with a master's degree in English. (para. 12)

This example demonstrates that human intellectual capacities are not dependent on the brain alone or even the brain at all, as in near-death experiences.

Furthermore, the human soul has intellectual capacities of reason and will, which are often called human self-consciousness and linked to language and a sense of moral agency and responsibility (Vitz, 2017; Vitz & Lee, 2020). Helen Keller, for instance, demonstrated that coming to self-consciousness required the understanding and use of language (particularly the act of naming) and brought with it a sense of time and the experience of moral responsibility and remorse.

The capacities of reason and will are of a wholly different kind than the organic-neural and sensitive capacities. Aquinas (1273/1981) recognized that the intellect was capable of universal and abstract concepts, which meant that intellection was an immaterial capacity of the body-soul unity, rather than a material thing per se (I, g. 75-76 & 79). In this perspective, intellectual cognition (intuition and discursive reason) is needed for human understanding and syntactic language. Moreover, intellectual affect (attraction to the good and discursive will) underlies moral action. These intellectual capacities are immaterial; yet, they are found in the experience of the virtues of practical reason, justice and mercy, moderation, courage, and interpersonal relationships (Titus, 2017; Titus et al., 2020b).

Aquinas' insight that reason and will are immaterial capacities presages certain findings of modern neuroscience. Egnor (2017), for example, reported that

Wilder Penfield, an early-twentieth-century neurosurgeon who pioneered seizure surgery, noted that during brain stimulation on awake patients, he was never able to stimulate the mind itself—the sense of "I"—but only fragmented sensations and perceptions and movements and memories. Our core identity cannot be evoked or altered by physical stimulation of the brain. (para. 17)

Penfield observed, and others have noted, "that spontaneous electrical discharges in the

brain cause involuntary sensations and movements and even emotions, but never abstract reasoning or calculation. There are no 'calculus' seizures or 'moral' seizures, in which patients involuntarily take second derivatives or ponder mercy" (Egnor, 2017, para. 18). There is a record of a Frenchman who apparently had almost no cortex at all, only a very thin layer of it, but was a normal, if average, married adult (Egnor, 2017; MacDonald, 2016). His self-consciousness and other aspects of being a normal person were functioning adequately, despite his very abnormal and minimal cortex. Similar observations emerged from neuroscientist and Nobel laureate Roger Sperry's famous studies of patients who had undergone surgery to disconnect the brain's hemispheres. Despite some peculiar perceptual and behavioral experiences, these patients still kept a unified personal identity, that is, a unified conscious awareness of reason and will (Sperry, 1968, 1977). These observations are also borne out by the more recent work of the neuroscientist and psychiatrist lan McGilchrist (2009).

Another point made by Egnor (2017) is that some patients with severe brain damage who appear to be in a persistent vegetative state (without consciousness) "are actually capable of sophisticated thought. The 'comatose' patients' brain scans show that, in reply to questions by an examiner, the patients are in fact thinking and imagining" (para. 20).

Related to the above findings and their interpretation is the position of the psychologists Koole et al. (2006). They characterize the human soul as having five ultimate concerns: death, isolation, identity, freedom, and meaning. Presumably, these are all consequences of human self-consciousness and the moral life (intelligence—reason and will). It seems reasonable to predict that none of them can be elicited by brain stimulation.

#### Conclusion

Finally, from the above considerations, we conclude that there is a non-material, spiritual, perfect, and transcendent code (a soul) that both animates and expresses, in the body-soul unity, the imperfect material code of a person. This unity of the person is due to the unification of the material and spiritual codes by the highest form, which is the soul.

This article sets up the analogy that the soul is to the body as the spiritual DNA/RNA plus more code is to the material DNA/RNA plus more code. This analogy is not divisive, but rather retains the one substance, body-soul unity that is assured by the higher, spiritual form, which is the soul. The codes, thus, have their autonomy within the unity found in the person. After death, the spiritual, non-material, perfect, transcendent code is the basis for a person's glorious body in heaven. This transcendent code retains the person's spiritual, body-soul characteristics pertaining to the person's life, such as moral behavior. The body-soul unity is the source of the major human capacities, expressing the human nature of the person. This nature involves self-consciousness (including intellectual cognition and sensory memory and imagination), moral choice (reason and will), and social relationships. All of these higher aspects of the person can be privately experienced and verbally described, but they cannot be reduced to matter. For psychology, as well as philosophy and theology, the above interpretation of the soul, as involving a material DNA/RNA plus more code that is informed by and interacts with a spiritual DNA/RNA plus more code, brings a new perspective to an ancient understanding of the soul.

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