
CHAPTER 1

THE EMERGENT HUMAN BEING

The questions “Who are we?” and “Why are we here?” have been a central part of Christian theology, requiring clear and perceptive answers on the basis of the biblical revelation. A critical factor in answering these questions is the cultural setting, which gives form and shape to the questions asked and the answers given. Living in a culture that has been profoundly shaped by the scientific and technological revolutions of the modern age, we cannot address these questions without recognizing the impact of the natural sciences, particularly the biological sciences. The theory of biological evolution stands prominently in the cultural environment in which the Christian theologian works, and consequently must be addressed in any reflections having to do with human nature and identity.¹ This fact is a reminder of the evolving character of theology itself, simply because it does not occur in a vacuum but in conversation with its culture. The gospel of Jesus Christ remains the same, but it will not be heard as good news if it is not interpreted in light of the times.

To bring together the biological and theological dimensions of human nature is to use two quite different paradigms in addressing the same human subject. My thesis is that these two paradigms are complementary to each other (which is to say they “complete” each other), with

each claiming a particular competence in addressing human nature, each bringing its own particular assumptions and methodology to the subject, and each bringing an indispensable perspective to a complete understanding of the human being. Science brings an empirical mindset, seeking answers within the bounds allowed by empirical investigation—what are often characterized as the “what” questions. Religion, by contrast, focuses on larger questions concerning meaning and destiny—the “why” questions that raise transcendent issues and invite a faith commitment. My purpose is to propose a Christian understanding of human nature that relates positively to biological evolution and captures the essential features of a Christian anthropology. Rather than addressing this subject in a comprehensive manner, I want to propose a way of reconceptualizing our understanding of human nature and the image of God in light of biological evolution.

Relating Faith to Evolutionary Biology

In addressing human nature, the Christian theologian proceeds from the biblical revelation, a narrative concerning the Hebrew people that culminates for the Christian in the story of Jesus of Nazareth. This piece of history from ancient times provides the substance for the Christian’s understanding of who we are as human beings, reflecting the belief that the ultimate word concerning human nature and destiny is to be found in history rather than in nature. Nature provides the indispensable setting for the story, and it necessarily enters into that story in a variety of ways, but historical action is what brings meaning to what humanity is all about. Because this story is an ancient one, its references to the world of nature reflect an ancient cosmology, far removed from our knowledge of the world and from the ways in which we relate to the world in an age of technology.

With this background, it is difficult indeed for Christians to face the reality that our relation to nature has become decisive for our faith in God and for our self-understanding as human beings. We understand today as never before that all of our thinking and doing as biological selves are profoundly influenced and conditioned by nature.

Darwin's theory of biological evolution, including his thesis that natural selection ("the survival of the fittest") is the most likely means by which the world's species emerge and disappear, has become an essential feature of the scientific understanding of the biological world. As the Christian geneticist Theodor Dobzhansky observed, "Nothing in biology makes sense except in the light of evolution."² Thus, we are challenged as never before to integrate our understanding of God's relation to the world and of our own human nature with the knowledge of the biosciences. The biblical story is not replaced in this venture, nor is a scientific discipline placed on a pedestal so that it supersedes our affirmations of faith. Rather, we are willing to recognize that the Bible and Christian tradition can and should be interpreted in a way that allows us to acknowledge and critically affirm what has been universally established as truth in the scientific community. It is of course true that the sciences as heuristic disciplines are always in a state of development and change, but nevertheless, there is a body of evidence that provides the foundations for further inquiry and that warrants the respect of the theologian.

In the paragraphs that follow, I will briefly sketch some of the major topics (*loci*) of Christian theology, affirming a Christian theistic position in conversation with biological evolution. My purpose is to suggest a contemporary Christian basis for understanding the human being in light of the biosciences before expanding later in the chapter on some of the implications of these statements.

God the Creator

Christians confess their faith in God as "Creator of heaven and earth," a confession based on the biblical story that begins with the creation account (actually two accounts) in Genesis 1–2. It is a story of remarkable literary quality and theological depth, but unfortunately a story that has itself posed a large part of the problem in the conflict between science and religion. Until quite recent times, most Christians assumed that the Genesis story was one coherent and descriptive account of what happened when the world came into being. This has meant that

the beginning chapters of Genesis have been pitted against the developing knowledge of science concerning human origins, as though the two were comparable as accounts of the beginning of things.

We now live in a time when Christians in significant numbers are able to recognize that the Bible contains a variety of literary genres, which means that the test of the Bible's veracity is not whether all that it relates is true in a literal sense. The discerning reader finds a wealth of different materials in the Bible: stories such as parables, allegories, and myths that convey a moral or theological point, as well as a fair amount of historical reporting, moral exhortation, hymns, poetry, proverbs, and legendary material. Throughout history, Christians have typically regarded the biblical story of creation as a kind of newspaper account of what happened; for most people living prior to the Age of Enlightenment, there was neither the knowledge nor the motivation to question the authoritative tradition of religion and culture on a matter of this kind. With the emergence of the scientific age and greater sophistication in assessing the subject of the world's origin, Christians can recognize the creation account for what it is: a story inspired by faith that introduces the larger biblical story of salvation and sets the stage for God's relationship to the creation and particularly to humanity. It is a *religious* story, organized around the sacred week and using a literary pattern for each day that glorifies the creative acts of God. Whether one lives in ancient or modern times, the only way one can address the subject of creation is to tell a story, because the subject transcends history.

One of the ironies in the literalist view of the creation story that has held such a tenacious grip on the popular mind is that the basis for a proper understanding is found already in ancient times among leading theologians of the church. Writing in 231 C.E., the Greek theologian Origen noted, concerning certain expressions in the early chapters of Genesis, "I do not think anyone will doubt that these are figurative expressions which indicate mysteries through a semblance of history." In his commentary on Genesis (391 C.E.), Augustine wrote concerning chapter 1: "No Christian would dare say that the narrative must not be taken in a figurative sense."³ Today we recognize that the creation story

moves us beyond the time-bound to the realm of myth, expressing in story form a profound truth about the meaning of things. It conveys the truth that God is the author of all things, quite apart from offering a scientific description of *how* the world or the human species came into being. There is a world of difference between a creation story and a scientific account of the origin of things.

Unfortunately, the challenge for much Christian theology still today is to recognize this difference and to acknowledge that theology has something to learn from the natural sciences. Where this has occurred, we see an understanding of creation that shifts from disparate acts of God back at the beginning of things (the elements of a mythic story) to God as eternal Creator, creating continuously. This is not a denial of *creatio ex nihilo* (creation out of nothing), for God supersedes the creation, but it is an affirmation of *creatio continua* (continuing creation) in understanding the unfolding nature of creation. Biological evolution dramatizes the fact that the world itself is an epic story that involves the capacity to bring forth what is new. As William Temple, archbishop of Canterbury, noted a century ago, “God did not make things . . . no, but He made them make themselves.”⁴ When we bring creation and evolution together, we do not look for some kind of miraculous beginning that would confirm a creative act of God. Instead, this approach commits us to a thoroughly naturalistic understanding of what we can learn about the origin of things. We are not looking for divine acts along the way (which have often been proposed to fill in the “gaps” of our scientific knowledge) but can marvel at the capacity of nature to bring forth an evolving pattern of life. We affirm as an act of faith that God brings into being and continues to sustain this whole process that generates the emergence of self-organizing systems and of organic life, including the comparatively recent development of human life. The beginnings of life remain shrouded in mystery, but a mystery that Christians can freely acknowledge together with the conviction that the evolutionary process is “God’s way of doing things.”

In recent times, the term *panentheism* (all is in God and God is in all, without exhausting God’s presence to the creation) has been used to describe a Christian Trinitarian understanding that would stress God’s

immanence in the world more forcefully than the church's traditional theism. Informed by scientific and ecological concerns, panentheists are critical of the tendency to speak in monotheistic terms about the Father who creates the world, because this imagery tends to convey God's transcendence to the exclusion of God's immanence. While pantheism (identifying God with the world) is obviously to be rejected, a Trinitarian view leads us to emphasize the Spirit of God as God's presence in creation. When the apostle Paul, speaking to the Athenians, quoted approvingly the words of a Greek poet, "In him we live and move and have our being" (Acts 17:28), he was affirming the truth that God's Spirit is immediately present and active at every level of creation in which we move. In light of the biblical revelation, the divine mystery is naturally expressed in terms of personal relationship and personal agency within human history. But at the same time, the immanence of God relates to the whole of life, including God's creative activity in the world of nature and the ongoing process of bringing forth what is new. As expressed by theologian Jürgen Moltmann:

Everything that is, exists and lives in the unceasing inflow of the energies and potentialities of the cosmic Spirit. This means that we have to understand every created reality in terms of energy, grasping it as the realized potentiality of the divine Spirit. Through the energies and potentialities of the Spirit, the Creator is himself present in his creation.⁵

Christians who would bring their faith into conversation with science are bound to hear the accusation "Your God is too small!" To relate God to the world of nature and to the staggering scope of the universe itself compels us to move beyond the anthropomorphisms we commonly hear among Christians. The "man upstairs" notion of God, with which we are all too familiar, only trivializes a concept that should convey overwhelming mystery. Because of the biblical revelation and particularly the mission and message of Jesus, we know God as personal presence, but as the divine Spirit, God transcends human personhood and eludes every attempt to define and grasp the divine. That is reason for humility and a reminder of our limitations as created beings, as well

as a reminder that the world of science can help to keep us responsible in the language we use when speaking of God.

The Emergent Human Being

The Christian narrative focuses on human beings as God's children with a divinely bestowed destiny. This includes a further truth about who we are, expressed in two passages from the book of Genesis: "Then the LORD God formed man from the dust of the ground" (2:7), and "You are dust, and to dust you shall return" (3:19). Humans are clearly related to the whole of God's world, sharing in the larger story of nature itself. The Hebrew word in the book of Genesis from which we derive the name of Adam is *adamah*, meaning literally "from the earth." The elements of the "primordial soup" from which all of God's creatures emerge continue to constitute the human being as well as the whole organic and inorganic world. Whether one is speaking of human beings, flies, plants, bacteria, or fungi, all share in the genetic structure of life; DNA (deoxyribonucleic acid), the chemical basis of heredity, is a common thread in relating all of life. Christian theology is thus obligated to place human beings firmly in the midst of God's natural world; while our capacity to manipulate and shape the environment gives us a unique status in bearing responsibility for the creation, we remain members of the animal kingdom and subject to all the limitations of that reality.

We might say there is a paradoxical character to human nature, in which we are children of God with an eternal destiny but also creatures who share the mortality that marks all of God's creatures. We live in a time when our connectedness to the rest of the animal world is becoming increasingly clear, shedding light on the biological nature of our existence. In the conversation between religion and science, it is imperative that we stress this twofold character of human identity in which we recognize and affirm the *continuity* of the human being with the animal kingdom at the same time that we recognize and affirm the *discontinuity*. This does not pose a contradiction that cannot be reconciled. It is, rather, a dialectical assertion that has to be made whenever we speak of

the identity of human beings. We are by nature both creatures of God and creatures of the earth.

The emergence of life on earth can be seen as a marvel of awesome proportions, given the fact that it has required such a delicate balance in the wide variety of physical forces that constitute the universe. Had such elements as the mass of the universe, various particle masses, gravitational force, electromagnetic force, and the velocity of light, to name but a few, been only slightly different, the galaxies and planets would have been totally different, with no possibility of life developing on earth.⁶ Some have called these coincidences that have made carbon-based life (and so human life) possible the “anthropic principle”; the universe is so finely tuned that it has generated, through its own inherent properties, living organisms and finally *Homo sapiens*. While this reality does not constitute a proof for the existence of God (as some would argue), it does contribute to the Christian’s conviction that we live in the kind of world that can be intelligibly united with belief in God. Such belief does not require that we be able to identify “special acts” of God in the emerging creation, but it recognizes the propensities of the evolutionary process toward increase in complexity, consciousness, and finally self-consciousness.⁷

The emergence of self-consciousness brings into being a creature who reflects the image of God, who can relate to God and fellow human beings and begin to fulfill a God-given destiny. Though Christians tend to see the human being as the climax of creation, it is important to recognize that, scientifically speaking, the movement from simple to complex organization in itself does not *demonstrate* purpose and design. The emergence of *Homo sapiens* takes place in a process marked by contingency rather than inevitability, but this in turn does not rule out a creator. Some would claim that the element of randomness in biological evolution justifies the notion that the emergence of human beings has been purely accidental, but this is an exaggerated claim. We do not insist on inevitability and purposive direction in *human* history as assurance that God is in the process, and neither should we expect to find them in *natural* history.⁸ Freedom and contingency within a context of order and structure are inherent to both nature and history.

Sin and the Fall

In light of our rootedness in the natural world, it has been tempting for Christian theologians to explain human sinfulness in terms of our “animal nature,” or the fact that we are creatures of instinct. To place human beings within the context of biological evolution would appear to accentuate this kind of thinking, leading one to believe that the human problem is due to our animal background that we are now challenged to transcend and overcome. On the contrary, Christian theology recognizes human sin as a spiritual condition, best described in terms of human pride and self-centeredness that go well beyond the natural instinct of self-preservation. With the emergence of self-consciousness in the human being has come the awareness of moral failure, guilt, and mortality. These defining dimensions of humanity from early on brought an awareness of transcendence and efforts to secure one’s life by acts of appeasement directed to the gods. Thus, moral evil that compromises and destroys human relationships is understood as sin that incurs divine judgment. In securing ourselves in the face of our vulnerabilities, we make a competitor and enemy of our neighbor and challenge the divine order that sustains life itself.

In recognizing sin as a state or condition, the Christian understanding sheds considerable light on the human situation. Our problem is not the result of individual transgressions but betrays a state of being that gives rise to transgression. An evolutionary understanding sees both our biological and cultural heritage playing into this predicament, not in any deterministic way but as setting the context and conditions in which humans in their freedom respond to the demands of life. Some have understood human evolution to be a steady course of moral progress from an animal past, but the evidence would indicate a far more ambiguous picture. In many respects, a more civilized society does emerge with the evolution of cultures, but there is ample evidence that evolving societies invent still more horrific ways to exalt themselves and destroy their neighbors. Evolution, whether biological or cultural, does not mean inexorable progress on the road toward perfection. However, it does constitute a genuine alternative to the church’s traditional view of the fall, which asserts that humans were originally in a state of

innocence and then experienced a fall into sin by virtue of the initial sin by Adam. Given the mythical character of this story, Christian theology today has generally moved beyond this traditional view; holding to an evolutionary view of an emergent humanity would also require the rejection of a historical understanding of the fall, including the fact that there is no biological-historical evidence for such a transition. Adam is recognized as a representative rather than a historical figure, standing not at the beginning of history but in the midst of each of our histories, signifying the human problem with which we struggle.

Redemption in Jesus the Christ

Jesus, the Christ or chosen one of God, is central to the faith of the church, the one in whom God makes God's self known in a once-for-all, decisive manner. This revelation is centered in the life and activity of Jesus: as a result of his ministry, he was acclaimed as the long-awaited Messiah; in his message and accompanying "works of wonder," he proclaimed and embodied the coming of the kingdom of God; his compassionate life embraced all members of society, even "the least of these," the poor and the despised; his speaking truth to religious and political power led him to a criminal's death on a cross; and his death was followed by the mystery of the resurrection. The profound impact of this train of events led quite early to reflection on Jesus' relation to the God whom he called "Father," leading eventually to the church's confession that Jesus is both "true man" and "true God." This language from the Council of Chalcedon (451 C.E.) expresses the church's understanding concerning the meaning of Jesus' life: God was at work in what Jesus did and in what happened to him.

By placing the Christian understanding of Jesus within the context of evolution, we become aware of the close connection between the historical setting of his life and the material, biological world in which God is continually giving existence to what is new. The creative process is built into the very process of evolution, in which an evolving matter brings forth new levels of complexity. This process has resulted in mental and spiritual qualities that distinguish human beings, placing them in relation to God and consequently revealing in themselves the image

of God. This image appears in Jesus as the consummation of God's purposes; he is the "new creation," the paradigm for the rest of humanity. But his meaning and significance are not limited to humanity. Scripture makes clear that the redemption he embodies is of cosmic scope, bringing an ultimate promise that embraces all of life, "things in heaven and things on earth" (Eph. 1:10). The seal of his being chosen by God for this life-giving purpose is the resurrection, which reveals both his redemptive role and the ultimate destiny of humanity. Thus, the church has been moved to see in Jesus God Incarnate, the one who embodies the will and purpose of God and through whom the Spirit brings forgiveness and new life.⁹ Jesus puts "a human face" on God that enables the believer to approach God as a loving Father and to enter into a life of obedience in the spirit of Jesus himself. Clearly, this kind of affirmation is not simply an objective judgment based on historical information, but reflects the experience of believers who are addressed by the figure of Jesus as the embodiment of divine love and forgiveness.

These admittedly sketchy understandings of several cardinal Christian beliefs should indicate that a traditional Christian theological stance can be expressed within the context of evolutionary biology. Bringing these two disciplines together can both enrich our understanding of the faith and convey the relevance of that faith to the scientific world. The latter point should be made with a proper sense of humility; we do not use science to prove the validity of the faith, but to assert that believers recognize that their faith is intelligible and can bring insight to the larger questions posed by human existence in a mystifying world. Making this venture of dialogue is the first step for the Christian in entering the larger conversation about the burning issues of the day, many of which are posed by the impact of the biosciences and the biotechnology they have spawned. A critical issue in this conversation is human nature and identity, a subject on which Christians have a most important contribution to make.

Relating Evolutionary Biology to Faith

The reflections in the previous section bring theology and evolutionary biology together from the viewpoint of a theologian who expresses

his faith in conversation with biology. Evolutionary biologists who are believers will see the point and importance of this venture, but in light of their discipline, both believing and unbelieving biologists will bring their particular perspective to the subject of religious faith, asking questions and seeking answers that reflect the interests of their discipline. Since the 1990s, there has been a notable increase in the attention that evolutionary biologists have given to religious faith; in particular, they seek an answer to the question “In the struggle for survival that marks evolution, what role does religious belief play?” The object of interest here (at least at a primary level) isn’t whether religious experience is authentic or whether the notion of God points to a metaphysical reality. Instead, it represents an effort within a particular science to determine how religious belief fits into the process of natural selection.¹⁰ Has belief in God assisted humanity to effectively adapt to its environment, or has it been a by-product or result of other adaptations during the course of evolution? Does religious belief serve humanity in what the believer would regard as our God-given destiny, to be stewards of creation, or should it be regarded as a neurological accident in the evolution of the brain that either hinders or has little to do with the flourishing of humanity?

Given the universality of religion, one could understandably conclude that it must have evolutionary value. If religious beliefs worked against an effective adaptation to the environment, would not the evolutionist have to wonder about their staying power? However, many religious beliefs appear to be what anthropologist Scott Atran calls “counter-intuitive,” misunderstanding and misrepresenting the world. Animistic beliefs, for example, posit spirits as active agents that “explain” events in the natural world; humans have had to outgrow such notions in order to understand and to deal effectively with their natural environment. One obvious problem in gaining a handle on this subject is its diffuse character. Religious belief covers every conceivable aspect of human life, from understanding nature to figuring out the meaning of human existence, from relating to one’s neighbor to projecting a human destiny. It is a life orientation that may include any number of mistaken ideas about matters that lie beyond our comprehension but also inspires a sense of meaning and purpose for one’s personal life and

creates a community that assists in providing coherence and direction for self and family. It may all be rooted in self-deception, or it may all be rooted in a profound truth that stands beyond the capacity of science to determine: we are all children of God.

How religious faith takes shape in people's lives, what responsibilities it leads them to assume, what risks it emboldens them to take—all of these have a bearing on the course of cultural evolution. Religious faith is a generic term that has to be related to the particular faiths by which people live, and one can surmise that those faiths that have persevered over centuries and millennia have served their adherents well in the struggle for survival. Wherever convictions of faith bring a sense of wholeness and purpose to life, compelling one to face the world with honesty and confidence, to reach out to the neighbor instead of succumbing to fear and alienation, to celebrate the universal human community rather than exalting tribalism—there the possibilities of human flourishing are enhanced. The continuing challenge for the historic religions is to lift up and to embody the ethical imperatives that reflect the direction of their convictions and the promise of humanity, recognizing that in serving God, we are serving each other and the welfare of God's world.

To Be Human Is to Be in Relationship

In presenting an understanding of humanity, I have turned to the Bible and the God of the Bible—the Triune God whom Christians confess as Creator, Redeemer, and life-giving Spirit. At the center of this biblical faith is the conviction that, as creatures, we stand in covenantal relation to God, a reality that no human being or human institution can remove. This conviction has implications that need to be spelled out further, particularly the point that our “divine connectedness” supersedes all other distinctions we are prone to make in our understanding of humanity. Our relation to God embraces our relations with other human beings, and this reality is the foundation for who we are. Relationships are indispensable to our nature and identity as human beings, for we become who we are by being in relationship. Theologian Jürgen Moltmann makes this point by distinguishing between individuality and personhood:

An individual, like an atom, is literally that ultimate element of indivisibility. An ultimate element of indivisibility, however, has no relationships, and also cannot communicate. . . . By contrast, a person is the individual human being in the resonance field of the relationships of I-you-we, I-myself, I-it. Within this network of relationships, the person becomes the subject of giving and taking, hearing and doing, experiencing and touching, perceiving and responding. . . . The “person” emerges through the call of God.¹¹

Moltmann’s understanding of the “call of God” is a call into interpersonal relationship with God and other persons, making possible our self-knowledge and self-identity, all of which are inseparable.¹² Essential to our personhood and to our standing in relationship is the fact that we are bodily selves; we cannot know ourselves and others in this world without our bodily nature. To know ourselves as children of God is to recognize a relationship that defines human existence, establishing a fundamental orientation to life itself and to our relations with other human beings. Consequently, central to our understanding of human nature is our God-given capacity to relate to God as a covenantal partner and to other humans as fellow creatures. These relationships also place us in a position of responsibility to the surrounding world, to fulfill the divine command to rule over and to care for the world in ways that fulfill our destiny as “created co-creators” with God.¹³ This capacity and all it implies are what we mean by the expression *image of God*, a central biblical concept that has received a variety of interpretations in Christian theology.

Despite the variety, one can identify two dominant understandings of the image of God in the history of Christian thought. The most prominent view, seen in the Roman Catholic tradition today and going back to the church fathers, can be characterized as “substantialist,” in which the image of God is understood in terms of certain attributes or endowments that humans possess. Foremost among them has been reason or our rational nature, the will or our voluntary nature, and our moral nature. The other view, which I am espousing and which can be characterized as “relational,” goes back to Augustine and Luther. It lifts

up our creaturely relation to God as the expression of the divine image in human nature. It involves our capacity to know God and to relate to God as God's human counterpart. Rather than being created "after their kind," as with other species in the Genesis account, human beings are created in the image and likeness of God.¹⁴ This peculiar relationship between God and human beings opens the possibility of faith and trust in God as the realization of our humanity as creatures dependent upon their Creator. Rather than identifying a particular faculty or attribute as the mark of the image of God, essential as it may be to the fullness of our humanity, a definition that captures the meaning of the *imago dei* for human identity requires a far more encompassing concept.¹⁵ For us as creatures, the fundamental reality of our existence is our relation to the Creator and to our fellow humans, bound together in our common humanity.

Our relational character means that, by nature, we are also historical beings with a past, present, and future. This captures Jürgen Moltmann's point, cited earlier in this section, in contrasting the concepts of individual and person: As individuals, we have no history but stand in isolation apart from relationships. As humans, we *become* the persons we are because of and as a result of our being in relationship. Thus, our rational and moral lives emerge and are made possible in our being related to others, expressed in the notion of personhood. Relationships also create the possibility of community as the goal and most exalted expression of life together, which means that our understanding of human nature has profound ethical implications. If by nature we are destined for community, then we are challenged to live out our lives in ways that further and support community. Whether in the context of family, church, voluntary associations, professional life, politics, or the world of commerce and business, the human obligation is to act in ways that serve the neighbor and the larger good of community. The distinctive nature of humanity brings an ethic of cooperation rather than domination, the lifting up of communitarian goals rather than the exercise of unilateral power.

This understanding of human nature bestows a divine purpose and destiny on each individual who enters the world, without regard to whether one possesses all of those faculties that we commonly identify

with being human. God's relation to the person, quite apart from any abnormality or disability displayed by the person, establishes his or her identity as a child of God. A theological conviction of this kind, rooted in faith, also relativizes every other distinction we might make concerning human identity. We tend to identify people according to their parentage, their social, economic, or political status, their professional achievements, their ethnic heritage, and so on, but all of these distinctions are overruled by the one fundamental truth: all people are children of God, created for community with one another and with God, the source of their being. This means, further, that in the most fundamental sense, all people are equals, a fact that has momentous consequences for issues of political and economic justice. We are not all the same in terms of what we bring to the societal table; the differences between us are vast in regard to creativity, achievement, and contributions we make to the common good of society. But all of us command a basic respect and a claim to fundamental rights in virtue of who we are as human beings and the brute fact of our physical presence in society. Given the reality of sin and the divisiveness it creates, respect for every individual is always an ideal to be pursued more than a reality that is achieved, but the Christian understanding of who we are gives particular impetus to realizing the ideal.

Understanding the *imago dei* in terms of our relationship to God and fellow humans conveys a particularly important truth concerning our biological selves. It means that our bodily presence is essential to who we are; the body is not simply an outer garment that clothes the real self, but it constitutes the psychosomatic being that we are. A relational view of our humanity can never retreat to a Platonic notion of the soul in contrast to our bodily nature. With a relational view, we are better prepared to recognize our embeddedness in the world of nature from which we have emerged and in which we continue to exist as *Homo sapiens*. This fact is a reminder that humans are related not only to each other but also to our natural environment. The interdependence that characterizes relationships must include our relation to and dependence upon the world of nature. The support provided by that world is indispensable to our survival and well-being, a fact that commands our respect for and care of the natural environment. Paul's reference to all of creation, including

ourselves, “groaning in labor pains” (Rom. 8:22-23) reflects our deep connection with all of creation and the fact that human destiny cannot be divorced from the larger world in which that destiny plays out.¹⁶

It is significant that the importance of relationships is recognized by scholars in the field of biological anthropology. Barbara J. King, anthropologist at the College of William and Mary, maintains in her book *Evolving God* that the emotions and mutuality involved in personal relationships are central to defining the nature of our humanity as religious beings. She places this thesis within the context of biological evolution, referring to her extensive research of the ape family, in which she finds evidence of relationships involving empathy and meaning-making activity. She argues that the beginnings of this emotional life are to be found in humanity’s prehistoric ancestry, referring to such archaeological finds as burial sites where symbolic representations have been found that suggest the beginnings of the religious imagination.

A cardinal concept at which King arrives in capturing the nature of personal relationships is “belongingness,” an experience that she believes is at the basis of religious life:

And here we come to the bottom line: Hominids turned to the sacred realm because they evolved to relate in deeply emotional ways with their social partners, because the resulting mutuality engendered its own creativity and generated increasingly nuanced expressions of belongingness over time, and because the human brain evolved to allow an extension of this belongingness beyond the here and now. All of these things were necessary for the origins of the human religious imagination.¹⁷

King thus unites human relationships with our relation to God as our emotional experience has moved in an ever-widening circle, seeking a power greater than ourselves. Placing the root of religion in the emotional life, she notes the development of that life in the human stage with the generating of ritual and distinctive beliefs. A noteworthy and particularly welcome feature of King’s approach is her focus on interpersonal relationships in addressing the phenomenon of religion, rather than focusing on the substratum of genes and neurons, which is often featured in recent attempts to “explain” religion. She acknowledges the

methodological challenge of investigating an intangible concept like “belongingness” in prehistoric times; evidences of the emotional life are not typically fossilized. But her research leads her to assert that “everything we know about primates and prehistory” lends credence to the notion that the necessary emotional connections were there.¹⁸

Biological Evolution and Human Nature

In forging a Christian understanding of human nature, we’ve noted the importance of a proper understanding of the Genesis story. That understanding frees the Christian to consider scientific accounts of human origins on their own merits, according to the evidence gathered through scientific investigations. There is little doubt within the scientific establishment (including most Christians who are scientists) that biological evolution is a fruitful theory that is indispensable in understanding how forms of life came into being. Evolutionary theory does not mean that all mystery has been removed concerning *who* the human being is, but it does help us understand *what* the human being is in relation to the rest of the biological world. Many scientific disciplines contribute toward this understanding, but in recent times, advances in genetics and molecular biology have been particularly significant in assessing the place of *Homo sapiens* within the animal kingdom. These developments have contributed substantially to a reunderstanding of Darwin’s evolutionary theory. What emerged in the twentieth century was a new synthesis of genetics and microbiology, commonly called “neo-Darwinism” as a way of indicating an altered or more complete version of Darwin’s original theory.

An important aspect of the genetic contribution to evolutionary theory is the light it has shed on the question “Who is our closest living relative?” Comparing humans with the great apes (including the orangutan, gorilla, chimpanzee, and bonobo) on the basis of anatomy and behavior leaves the impression that apes are much more similar to each other than to humans; they are much hairier, their arms are longer than their legs, they walk on four rather than two limbs, their brains are smaller, and their hairy faces, with large and projecting canine teeth, are quite different from the human face. While they can be taught the

rudiments of sign language, their abilities to think and understand are markedly limited compared with those of humans. (While this is true, current research with chimpanzees indicates that their capacity to perform mental activities is greater than previously thought.) These larger apes together with humans constitute the five hominoid species, indicating our relatedness, but scientists since the eighteenth century have placed humans in a different zoological family: we are *hominids*, while the great apes are *pongids*. Thus, our difference is recognized within the larger family of primates.

While these observations seem reasonable enough, the findings in genetics actually suggest a different point of view. Investigations going back to the 1960s in comparative biochemistry at the molecular level reveal that, genetically and biochemically, humans and chimpanzees are more closely related than either of them is to the rhesus monkey, and that humans and African apes are more closely related to each other than either of them is to the orangutan. These conclusions have been confirmed more recently with the comparison of DNA sequences, now the ultimate mode of genetic analysis. For example, by examining amino acid sequences of one of the protein chains that makes up hemoglobin (the molecule that carries oxygen), we discover that humans and chimpanzees have all the same amino acids for this molecule, while gorillas share all but one. Another study in 1975 showed that humans and chimpanzees share over 98 percent of their DNA, unmistakable evidence that they have evolved from a common ancestor. (It is interesting to note, however, that genetics doesn't help us understand how such genetic similarity can be found in creatures whose morphology, or physical appearance, can be so different from ours.) It is not surprising that scientists are debating how to classify humans, with some favoring a system that recognizes our relatedness to the African apes, while others prefer a system that recognizes our differences.¹⁹ Within the context of scientific classification, it is another indication, you might say, of the two-sided understanding that human identity inherently raises.

There is no reason for Christians to react defensively to these evidences of our biological continuity with the lower primates. We are so used to stressing our uniqueness as human beings that any reminder of our connectedness with the animal world is often regarded as a threat.

This way of thinking reflects the genetic fallacy, where we identify our origin with our nature; this fallacy fails to recognize the emergent character of human nature, where we *become* who we are. There is certainly enough evidence of our uniqueness as human beings to dispel any reason for alarm in recognizing our biological origin and our embeddedness in the animal world. That uniqueness begins with our physical existence, where scientists point out the significant differences in body structure and anatomy between humans and other primates; these differences in turn make possible the more profound differences that distinguish us from the rest of the animal kingdom. For example, among the vertebrates, we are the only species holding an erect posture and moving in a bipedal gait, and our arms, hands, and thumbs are arranged so as to enable precise manipulation, features that make possible our command of the environment. Most importantly, our vocal tract, possessing a longer pharynx than that of our ancestors, makes possible the phenomenon of speech, which is essential to the development of language, commonly acknowledged as the distinguishing feature of our humanity.²⁰

The most significant difference between humans and other animals is found in the brain. Humans have the largest brain among primates, with a weight in the adult male of approximately three pounds, compared with roughly one pound in the gorilla and slightly less than that in the chimpanzee. Related to this is the fact that in the average mammal, about 3 percent of the blood pumped by its heart services the brain; in humans, it is close to 16 percent. Neuropsychologists tell us that brain size relative to body weight increased dramatically with the emergence of humans. In addition, the human cerebral cortex, where cognitive processes take place, is disproportionately larger in relation to the rest of the brain than is the case with apes—roughly three times the size it would be in other primates of equal size.

But weight and size alone are not the only distinctive features (the brains of whales and elephants are larger than those of humans). One also finds much greater complexity in the human brain, with a degree of specialization that is unique, particularly cerebral asymmetries and areas in the neocortex associated with speech. As the number of neurons (nerve cells) in a nervous system increases, so does the complexity of

an animal's behavioral responses. Amazingly, the human brain contains more than ten billion neurons, extending over sixty thousand miles, with each neuron making hundreds, even thousands, of links with others. An immense number of nerve fibers move from the brain through the spinal cord, in contact with some billion sensory units from which they receive electrical signals from all parts of the body. It is this marvelous complexity and specialization of the brain and nervous system—by far the most complex structure in the universe—that literally opens up the possibility of human consciousness and human culture.

Physicists speak of “phase transitions” where the circumstances give rise to something that is distinctively new. For example, in the transition from ice to water or from water to steam, elements that remain the same are dramatically changed; something quite different emerges. Biologists use this notion of a phase change in the context of biological evolution, where a major increase in the capacity of abilities at one level results in a new level of complexity. The concept is used to account for the radically new character of the emerging brain in the human species. With the emergence of this remarkable organ, evolving over hundreds of thousands of years, we see the entry of those qualities distinctive to the human being as a counterpart to the Creator: the attributes of sensation and perception, of thought and cognition, of emotion and feeling, of consciousness and self-awareness, of moral and religious experience. This is not to say that other primates fail to give evidence of at least some of these characteristics—the continuity with other primates is still there—but the range and depth of these attributes in human beings are stunningly new. While a rudimentary consciousness can be recognized in some of the higher animals, human self-consciousness is a further development that has brought a corresponding awareness of the presence of God and the distinctive world of human relationships that together have set us apart among all creatures of the world.

Reconceptualizing the Soul

Many Christians would question whether the preceding discussion, limited as it is to human anatomy and genetics, can begin to do justice to the essential nature and uniqueness of the human being. They would

claim that we cannot talk about that uniqueness without talking about the soul. It is indeed true that, throughout Christian history, a dualistic understanding of human beings has prevailed: the concept of the soul in contrast to the body has literally defined the essence and uniqueness of the human being. Understandably, this fact generated much of the resistance to Darwin's theory. The Roman Catholic anatomist George Jackson Mivart (1827–1900) argued that evolution could be seen as a natural explanation for the development of the human body but could not explain the human soul. The soul had to be a divine creation, befitting its uniqueness as a spiritual entity. It took some time for this compromise position to be accepted by the church hierarchy (Mivart himself was excommunicated), but it eventually became the Roman Catholic position on this issue. Pope John Paul II addressed the topic in his 1996 annual address to the Pontifical Academy of the Sciences, where he essentially recognized biological evolution as scientific fact but limited it to the physical nature of the human being.²¹

When one considers the biblical witness concerning the soul, however, the consensus among biblical scholars is that the Hebrew Scriptures (the Christian Old Testament) present quite clearly a holistic or unified view of human nature, in contrast to a dualistic view.²² The story of creation is particularly significant here: the “breath of life” endowed by God (Gen. 2:7) makes a living being with an animated or spirited body, rather than God creating a soul and giving it a temporal home by placing it in the body. While there are Hebrew words that we translate as “soul” (*nephesh*) and “spirit” (*ruach*, also translated as “breath”), in the Hebrew mind, they do not refer to distinct entities that could exist outside of the body. They are functional words that refer to the whole person and describe human activities such as thinking and feeling, often understood as coming from the organ of the heart. This holistic way of discourse characterizes Hebrew in contrast to Greek thinking. The human being is ontologically one, not two, with inner and outer dimensions captured by such terms as *soul* and *body*.

The New Testament reveals aspects of Greek thinking in its language, but one can hardly argue that it conveys a dualistic view of the human being. Particularly in the letters of the apostle Paul, there are references to the spiritual life in which words such as *psyche* (“soul” or

inner life or being) and *pneuma* (“spirit”) are used, and this language has been interpreted in ways that encourage the notion of a spiritual essence of the human that is real and eternal in contrast to the body. Given the pervasiveness of Greek influence in the developing theology of the early church, this development is not surprising. Among the early church fathers, the dominant influence was the Greek philosopher Plato, who held to a dualism of body and soul, with the latter being the eternal essence of the human being. The body belongs to the material world marked by mortality, a shadow world that lacks the reality of spirit.

The most threatening heresy in the early centuries of the church was Gnosticism, which placed the spiritual world in sharp contrast to the material world, as in the contrast between good and evil. Being both body and soul, human beings are caught in the middle of this conflict; the religious and moral life is pursued by nurturing the spiritual life and battling the temptations rooted in our bodily existence. This kind of thinking was pervasive throughout the ancient world, including the Christian community; it served as a paradigm for understanding life’s journey and the moral challenges it raised. During the twentieth century, which witnessed a renaissance in biblical studies, Protestant scholars generally came to the conclusion that the New Testament does not convey the kind of dualism that took hold in the ancient church. The belief in the resurrection of the dead defines the position of the New Testament, revealing a clear alternative to the notion of a disembodied soul as the identifying and immortal part of the human being. The future life is marked by resurrection and transformation, not the departure of the soul from the body. Paul’s discussion of the resurrection in 1 Corinthians 15 places our future solely in the transforming act of God rather than any capacity within ourselves—such as an eternal soul—that would guarantee our immortality.

In light of these reflections, many Christians would ask all the more urgently, and perhaps with a measure of exasperation, “What about the soul?” My intent is not to dispense with the word (as though that were possible), but to clarify its meaning and proper usage within the Christian community. We often use the word *soul* in a figurative sense to refer to the essence of a person, the “real me.” That usage serves a good purpose as long as the word retains its figurative character. To put it differently,

soul should be recognized as a *functional* word; we are “soul-like,” but we do not “have” a soul. It expresses the inner life of humans that marks their distinctive existence as spiritual beings, attuned to transcendence and sensitive to questions of ultimate meaning and purpose. Augustine’s comment in his *Confessions* concerning a human “restlessness” that finds its rest in God is a particularly apt expression of our spiritual nature. The word *soul* is most often used in reference to religious experience, but it functions within a wide enough range of human experience to make it inherently ambiguous. It can be understood conceptually as the life principle or core of one’s being (Aristotle’s view, in which the soul as the “form” of the body expresses its purpose, or *telos*), without introducing the notion of a separate metaphysical entity that exists apart from the body (Plato’s view). For the person of faith, the word *soul* conveys our capacity to stand in relationship to God as well as to our fellow human beings, without whom it would be impossible to claim and express our human identity.

Some language analysis may be helpful in making my point that the word *soul* is to be understood in a functional sense. Because it serves as a noun (which by definition denotes a person, place, or thing), *soul* is understood as denoting a thing or entity. Language can play tricks on us this way, where we reify (“thingify”) a concept rather than addressing its experiential meaning. When we do the latter, we find it more appropriate simply to speak of ourselves as spiritual beings created in God’s image, with the word *soul* capturing that reality rather than introducing an entity that skews Christian anthropology in a dualistic direction. The point is that to affirm our nature as spiritual beings and creatures of God does not require the existence of a soul. To recognize this also spares one from the thorny problem of having to locate the soul somewhere within the body. Plato placed it in the “marrow” of the head, presumably the brain. Moschion, a renowned Greek physician of the second century, maintained that the soul floats throughout the whole body. The philosopher René Descartes (1596–1650), who has been most influential in shaping the contemporary dualistic understanding, placed the soul in the pineal gland at the base of the brain. Given the obscure nature of this gland at the time, it was a fairly persuasive conclusion. Less well known is the

conclusion of the eighteenth-century French surgeon Gigot de la Peyronie, who claimed on the basis of some rather bizarre experiments that the seat of the soul must be the corpus callosum, deep within the brain.

Among other things, we avoid such attempts at location when we recognize that to speak of the soul is simply to recognize our spiritual nature: As creatures of God, created in God's image, we respond in awe to the mystery of God and grapple with ultimate kinds of questions concerning our human nature and identity. As creatures of God, we live by faith, recognizing spiritual or depth dimensions to human experience that aren't adequately captured by the language and concepts of the sciences. Human consciousness enables us to see ourselves not only as embodied and physically identified beings, but also as capable of self-transcendence and self-reflection, raising the kinds of questions we are considering here about human identity. A functional understanding of the soul applies also to the concept of the mind, which is not an entity apart from the body but a descriptive term that refers to human consciousness and the cerebral activities we call thinking, reasoning, and reflecting. We will continue to use words like *soul* and *mind* as nouns because doing so is a shorthand way of referring to the realities they represent, but that practice shouldn't seduce us into thinking that they denote existing entities.

In the minds of most Christians, perhaps, the concept of the soul is particularly related to human destiny and life beyond the grave. In popular religion, the soul seems to be required in order to affirm that we shall live beyond death; by definition, it is not affected by the mortality of the body. From the perspective of a more deeply rooted biblical position, as we have noted, this view is contradicted by the good news that our destiny lies in the hands of God, who is sovereign over both life and death. There is no reference whatsoever to an "immortal soul" in the New Testament. Its witness places both Jesus' destiny and our own squarely in God with the teaching of the resurrection of the dead. Thus, from a biblical point of view, our destiny lies in the transformative power of God, who can make all things new. We can say that any reference to the mystery of an afterlife is an expression of faith in God as Lord over both our present and our future.

Concluding Thoughts

Our discussion of human nature in Christian perspective has affirmed the complementarity of science and religion, in contrast to notions of conflict and antagonism. This concept has been helpful in recent years in assisting the faith community to effectively relate the concerns of science and religious faith, but it can also be misunderstood. Its value is that it recognizes the essential difference between religion and science in the kinds of interests, goals, and purposes that each brings to the subject of human nature, the kinds of questions that each consequently raises, and the insights that are elicited. But these differences are misunderstood if they lead one to hermetically seal science from religion or religion from science, preventing the possibility of fruitful dialogue. Their different methodologies do not logically exclude theology from considering the implications of scientific investigation for the larger questions of meaning and purpose that theology wants to explore. Nor do those differences exclude the sciences from investigating those theological claims that by their nature are subject to scientific investigation. Because both science and theology are interested in the question of human nature, they necessarily meet at that point and are challenged to recognize what they can learn from the other.

A recent initiative to introduce the concept of “consonance” in place of “complementarity” in describing the relation of theology and the natural sciences reflects the desire to affirm and emphasize the unity of truth and the necessary harmony of science and religion. This view argues that complementarity (often referred to as the “two-language” view) prevents communication between science and religion because it consigns each to a wholly different realm of language and conceptualities.²³ I’ve noted this danger but still believe that it is necessary to recognize the differing mind-set and consequent difference in focus and interest in each of these disciplines. Truth is indeed a unity, but complementarity is a concept that recognizes this fact at the same time that it respects differing approaches to the truth. The distinctive faith of the Christian theologian brings the world of nature into the realm of creation and a creator God, an orientation that scientists—whatever

religious faith they might have—cannot allow to influence the empirical assumptions that govern the nature of their work. Any dialogue between science and theology moves beyond those assumptions to a secondary level, where explicitly philosophical and theological inferences are drawn from scientific investigation. This “meta-level” of discourse is where the opportunity for dialogue and cross-fertilization of ideas can take place. It involves recognition of the distinctive character of each discipline as well as their legitimate interest in a common subject matter and the insights that each can bring to it.

Christians today as never before are challenged to inform themselves about evolutionary biology, to understand its essential role in the work of the life sciences, and to move beyond the assumption that it must be a mortal threat to their faith. The biblical witness recognizes our embeddedness in the world of nature and, unlike much of the tradition in Christian anthropology, does not seek to escape it or deny it. The dualistic tradition that still holds sway in the church encourages a false denial of our biological roots or, at the very least, an attempt to ignore what we have learned about human origins. The tragedy of this situation is that people of faith deny their own calling when they fail to be truthful with themselves concerning the results of responsible scholarship. They need to understand that biblical faith allows us to affirm our uniqueness both as children of God and as children of nature.

In speaking of the complementarity of science and Christian faith, we can also recognize the complementarity of body and soul in our understanding of human nature. Biological evolution can help us to understand that these two concepts are no longer to be regarded as ontological opposites and exclusive to each other. We can now recognize that biological life gives rise to the spiritual life, serving as a foundation that enables the human capacity for transcendence and what we call the image of God. The incredible complexity of the brain gives rise to something new and uniquely human, enabling the life of relationships that shape our personhood and self-understanding. Rather than reducing our spiritual life to its biological foundation—an effort that is alive and well in what we call scientific materialism or scientific naturalism—we

can recognize its reality and integrity in defining who we are as spirited creatures. We are now in a position as Christians to recognize and embrace both matter and spirit, the bodily and the spiritual life, as a psychosomatic, interdependent unity. The body, in response to its environment, gives rise to the life of the spirit, and that spirit-life both directs and fulfills our existence in the world.