Voices from the Next Generation

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EMERGING IN THE IMAGE OF GOD TO KNOW GOOD AND EVIL

by Jason P. Roberts

Abstract. Found in the Primeval History in Genesis, the biblical concepts of the "image of God" and the "knowledge of good and evil" remain integral to Christian anthropology, especially with regard to the theologoumena of "fall" and "original sin." All of these symbols are remained important and appropriate descriptors of the human condition, provided that contemporary academic theological anthropology engages in constructive dialogue with the natural and social sciences. Using Paul Ricoeur's notion of "second naïveté experience," I illustrate the hermeneutical significance of contemporary bio-cultural or socio-biological evolutionary theory for reformulating these concepts of Christian anthropology today.

Keywords: constitutive utterance; created co-creator; emergence; fall; humans-being-and-becoming-in-relation; imago Dei or image of God; knowledge of good and evil; myth; negative contrast experience; original sin; relationality; second naïveté; theory of meaning.

The human person is a concupiscent kludge of finiteness and freedom. And, the human person bears the *imago Dei*—the image of God. How is the first of these statements related to the second? After all, the Yahwistic account of humanity's primordial beginnings holds that after the so called "fall" of the mythic first pair, "the Lord God said, 'Behold, the [hu]man has become like one of Us, knowing good and evil" (Genesis 3:22¹). How might contemporary philosophy and the natural and social sciences inform the theological picture of humanity rooted in the first few chapters of Genesis? What place do the theologoumena of the *image of God*, the

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knowledge of good and evil, fall, and original sin have in contemporary academic theological anthropology and ethics? In light of recent exegetical considerations,² and in taking seriously both the shape of the biblical narrative and an evolutionary account of human origins, one finds that what is typically dubbed "original sin" is not a cursed cause or consequence of paradise lost, but rather, an inevitable side effect of our emergence as creatures characterized by both finiteness in being and self-conscious freedom and responsibility in relating to the world, to others, and to the divine.

In distinct ways the biblical and natural historical narratives of human origins depict human beings as creatures whose self-consciousness emerges with the capacity for ethical interaction and reflection. *Homo sapiens* qua human have a knowledge of good *and* evil. From a perspective according to which "good" and "evil" condition created reality prior to the human ability to construe such concepts linguistically, the attainment of what Genesis 3 and theologians and exegetes throughout the centuries call the "knowledge of good and evil" does not constitute a falling away from the divine image and likeness. Instead, this development is more a falling into or stumbling upon the original ambivalence of humanity's evolved and evolving nature. Such a discovery is intrinsically tied to the emergence of humankind in evolutionary history as bearers of the *imago Dei*.

To reassess the doctrine of original sin in this way is to heed Philip Hefner's call of "fulfilling the task that [Paul] Ricoeur set before us to transport the traditional symbols, where they are important vessels of information for us, into the realm of contemporary, second-naivete [sic] experience, and enable them to coalesce with our experience to provide genuine knowledge of reality, for the sake of our wholesome living" (1993a, 99-100). By this endeavor I intend to expand the thesis of Hefner and others that contemporary understandings of biocultural evolution or sociobiology are commensurate with certain aspects of the traditional Christian doctrines of fall and original sin, even in calling for the reformulation of these doctrines. Toward this end I propose that the biblical symbols of the "image of God" and the "knowledge of good and evil" are commensurate with contemporary natural- and social-scientific findings, and that these findings ought to have a bearing upon any current formulation of the doctrines of fall and original sin.3

I delineate and defend this thesis in the following four steps: first, an account of what I mean by the term *evolution* and its hermeneutical significance for Christian anthropology; second, a partial articulation of the doctrine of the *imago Dei* or image of God within this evolutionary worldview; third, a description of how the *knowledge of good and evil* is to be situated vis-à-vis socio-biological evolution and the doctrine of the

image of God; and fourth, a note on how these considerations reshape the doctrines of fall and original sin, among several other *loci* of Christian theology and ethics.

EVOLUTION

To begin, the umbrella term "evolution" covers several concepts of hermeneutical significance for Christian anthropology. Since the focus here is anthropology, the focus here is also *human* evolution, signifying the mutually inclusive and mutually informative *co*-evolution of humanity's genetic and cultural heritage-i.e., our biocultural evolution or our socio-biological history. In a unique way Homo sapiens are social creatures, even to the extent that for many millennia the creation of and adaptation to our various social environments have had more impact on what it means to be human than any variations or transmutations in our species' genome. From the interaction of subatomic particles at the molecular level to metabolic processes within and among body cells and systems to sexual union and reproduction, human evolution is a relational affair. Human beings are such because we are always *humans-being-and-becomingin-relation*. This relational ontology of the human person in evolutionary history anticipates the way in which sociobiology provides a hermeneutical lens through which to gain a second naïveté experience of the biblical and theological symbols of the image of God, the knowledge of good and evil, fall, and original sin. None of these concepts would be constitutive of human-being, fallen or otherwise, if that being were not also being-andbecoming-in-relation to one another, in our social and natural environments, through the emergence and actualization of reflexive self-consciousness within these contexts.

In the freely unfolding "interplay of chance and law (necessity)" that characterizes cosmic (but does not circumscribe all cultural) events, the concept of *emergence* provides a credible explanatory framework for describing the creative capacity inherent in the relational matrix of this physical, biological, and social world (qtd. in Polkinghorne 1996, 75; cf. Peacocke 1979, 304). Though many of the scholars cited in this essay hold an emergentist perspective, Philip Clayton provides a systematic description and defense of emergence in the contemporary philosophy of science (see Clayton 2004, 2006, 342-356). The concept of emergence provides a way for theological anthropology to speak of human persons as spiritual, soulful, or mindful creatures, without having to wrestle with the traditional dichotomy of substance dualism vs. materialism (or reductive physicalism). This possibility is due to the way in which emergence explains how self-organizing principles increase the complexity of physical and biological structures, leading synergistically to qualitatively new and unpredictable forms of causality, and even what Clayton calls

"agency" (2004, 23, 96–97, 99–100, 138–48). These newer/higher/more-complex forms of being-in-relation are distinct from and irreducible to their older/lower/less-complex forms and structures. Emergent realities are dependent upon constituent structures and phenomena from the bottom up, but are able to exert top-down or whole-part influence. For example, human consciousness, mind, or spirit emerges synergistically from the activity of the central nervous system in interaction with one's physical and social environments. Human agency is dependent upon, but distinct from and irreducible to, neurological activity. Because mind is no mere epiphenomenon of matter, ethical freedom and other aspects of human agency are not reducible to the laws of physics.

As a way of describing how new modes of being arise from a critical mass of complexity, emergence is able to point out both quantitative and qualitative distinctions among species and can provide a credible way of describing human uniqueness that opens up scientific modes of explanation to theological ones.⁵ In other words, the emergence of many of the characteristics that constitute the being-and-becoming-in-relation of *Homo sapiens* (per socio-biological modes of explanation) pertain to the emergence of the image of God (per biblical and theological modes of explanation). Christian evolutionary biologist Francisco Ayala lists several interrelated ways in which humans-being display a quantitative and qualitative uniqueness among animal species: erect posture and locomotion; relatively large opposable thumbs; large brains; changes in skin and body hair; cryptic ovulation; slow development; modification of vocal structures and vocalization; reorganization of brain regions; subtle facial expression; intelligence (abstraction, categorization, ratiocination); symbolic (creative) language (and literature); self-awareness and future orientation (which includes death-awareness); tool-making and technology; science; art; ethics; religion; social and political organization, cooperation, labor division, and legal sanction (Ayala 1998, 37–38).

Each and every one of these uniquely and intrinsically human characteristics has emerged within the freely unfolding relational context of the evolutionary history of our planet. For this reason evolution is an indispensable hermeneutical lens through which to read anew, at the level second naïveté experience, the biblical symbols of the *image of God* and the *knowledge of good and evil* and the theologoumena of *fall* and *original sin*.

So what is Ricoeur's "second naïveté experience" to which Hefner refers? Ricoeur's "aim at a second naïveté" with regard to the ancient and perennial symbols of human identity is a critical-hermeneutical endeavor. It begins "as an awareness of [a] myth as myth," which here means dealing with the biblical myths of creation and "fall" as such.⁶ For Ricoeur this project of "demythologization is the irreversible gain of truthfulness, intellectual honesty, [and] objectivity" (1967, 350). This endeavor intends to revivify mythic symbols, not repudiate them. He continues by asking, "Does that mean that we could go back to a primitive naïveté? Not at all," he responds.

"In every way, something has been lost, irremediably lost: immediacy of belief. But if we can no longer live the great symbolisms of the sacred in accordance with the original belief in them, we can, we modern [people], aim at a second naïveté in and through criticism. In short, it is by *interpreting* that we can *hear* again. Thus it is in hermeneutics that the symbol's gift of meaning and the endeavor to understand by deciphering are knotted together" (Ricoeur 1967, 351).⁷

To hone the focus on the list of unique human characteristics that Ayala provides above, humans-being are intrinsically relational, linguistic, and ethical creatures. To the extent that *humans-being-and-becoming-in*relation are constituted by all these realities, we do not display any one of these distinguishing characteristics without the other two. Uniquely human modes of self-conscious relationality stem in part from linguistic and ethical capacities, while these latter capacities do not come to fruition except in and through relationship. I cannot call myself "I" except within and because of a cultural-linguistic matrix of interaction with other selves I call "thou" or "her" or "him." Human self-consciousness is mediated through symbolization in community. Such is the anthropological legacy of such diverse thinkers as Ludwig Wittgenstein ([1953] 1973) and his interpreter Fergus Kerr ([1986] 1997), Charles Taylor (1985), Terrence W. Deacon (1997), Graeme Auld (2005), and J. Wentzel van Huyssteen (2006), among many others. Each in his or her own way, these scientists, biblical scholars, and philosophers of language, science, and religion all cite symbolization as a crucial aspect of human uniqueness. Moreover, these scholars do not view language as simply something *humans-being* use, but as something which, in its use, is constitutive of being human. Language is not just the outward sign of inward thought, but that which gives meaningful shape to every human thought—from the most limbic of emotions to the most lyric of poems to the most logical of discourses. Ironically, the Cartesian *ego* is only able to utter its skeptical and solipsistic "cogito ergo sum" because that which it doubts—the cultural-linguistic world supposedly outside the self—has provided it with the symbolic world in which to make such claims.⁸ For Taylor human being-and-becoming-in-relation and language are mutually inclusive and informative:

The community is not simply an aggregation of individuals; nor is there simply a causal interaction between the two. The community is also constitutive of the individual, in the sense that the self-interpretations which define him [or her] are drawn from the interchange which the community carries on. A human being alone is an impossibility, not just *de facto*, but as it were *de jure*. Outside of the continuing conversation of a community, which provides the language by which we draw our background distinctions, [real] human agency [...] would be not just impossible, but inconceivable. [...] On our own, as Aristotle says, we would be either beasts or Gods. (1985, 8)

This insight hints at what Taylor perceives to be three dimensions of language tied to respective *theories of meaning*, in that he explores "how

language not only depicts [per a designative theory of meaning], but also articulates [per an expressive theory of meaning] and makes things manifest [per a constitutive-invocative theory of meaning], and in so doing helps shape our form of life" (1985, 10; cf. Kerr 1997, 134–35). For Taylor as specific symbols and concepts gain traction in certain arenas of cultural life, they make possible new kinds of agency and expression (1985, 276). In speaking of emotional expression, Taylor observes that "when we come to articulate a feeling in a new way, it frequently is true to say that the feeling also changes" (ibid., 270). Though this is not to say that emotions or other human realities can be shaped at will by the descriptions one gives them, humans-being-and-becoming-in-relation are in large part free and responsible for construing or otherwise creating what is real for us through constitutive utterance. In this respect Homo sapiens have emerged as bearers of the *imago Dei* by evolving into what Hefner has termed *created* co-creators (1993b, 17-21, 37-39, 48-51, 97-106, 236-40). For Hefner, "what is at the core of this analogy [of the image of God] today is the character of *Homo sapiens* as a free creator of meanings, one who takes action based on those meanings and is also responsible for those meanings and actions" (1993b, 239).

IMAGE OF GOD

Biblically speaking, for both the Priestly and Yahwistic writers of the Genesis creation accounts, the creator God is relational prior to creation—"let *Us* make [humanity] in *Our* image..."; they have "become like one of *Us...*" (Genesis 1:26; 3:22; emphasis mine). In Christianity God's intrinsic relationality prior to "the beginning" is associated with divine triunity. According to Genesis the creator God called Yahweh Elohim (Genesis 2:4) speaks reality into existence through constitutive utterance—"Let there be... and there was..." (Genesis 1). In these and other aspects, human persons may be said to bear the divine image as created co-creators.

Here is where the concepts of evolution, the image of God, the knowledge of good and evil, fall, and original sin intersect. As a biological and cultural-linguistic species, humanity's genetic and cultural histories, its individual and communal identities, are intertwined and codetermining. The physiological, psychological, and sociological characteristics that make humanity unique among animal species have emerged in the midst of—and as a result of!—the same context of conflict and cooperation that besets the rest of the continually evolving world. Human freedom and responsibility are neither absolute nor autonomous, but conditioned by its intrinsically embodied socio-biological milieus. Given this state of affairs, the ability to construe the concepts of good and evil linguistically is partly constitutive of what it means to be human and to bear the image of God. Humans-being-and-becoming-in-relation have not fallen from a state

of original bliss so much as we as individuals and a species have stumbled upon the original ambivalence of our created nature—its qualitatively and quantitatively unique capacities for fulfillment and frustration, for cooperation *and* conflict, for good *and* evil. Construing, and thereby in some sense constituting ourselves as human persons through this cultural-linguistic knowledge of good and evil, *Homo sapiens* have become more like God (Genesis 3:22). That is, *humans-being* have emerged as created co-creators, who, as bearers of the *imago Dei*, possess a unique perspective on the freely unfolding evolution of the world—the travail of creation which cries out in eschatological hope for cosmic redemption and new creation (Romans 8:18–23).

This way of describing the protology of the human ability to construe and commit good and evil allows for a second naïveté interpretation of the first several chapters of Genesis in general, and a second naïveté understanding and experience the biblical concepts *image of God* and the knowledge of good and evil and the theologoumena of fall and original sin in particular. Since all these concepts have become inextricably interwoven in the ongoing history of Christian theology, any second naïveté retrieval of these biblical symbols entails a reformulation of the doctrines of *fall* and original sin. Further, through the hermeneutical lens of socio-biological evolution, the biblical symbol of the knowledge of good and evil comes under the ambit of the *image of God*, just as it is simultaneously distanced from the notion that this knowledge springs from a discrete act of disobedience in humanity's primordial past. The image of God, and any lack or distortion thereof, have less to do with what many call "original justice" than with the reality that human-being, by analogy to God's triune being, is creative, verbal, and relational. In Christian theological anthropology the *imago Dei* is the *imago trinitatis*, itself a second naïveté interpretation of the *image of God*. As created co-creators *humans-being-and-becoming-in-relation* mirror, to a creaturely extent, the eternal triune life of the creating and redeeming God who is love (1 John 4:18)—who utters creation into existence from nothing (Genesis 1:1-2:3), who redeems creation by uttering that same Word in human form as Jesus Christ—the image of God most properly so-called (John 1:1-18; Colossians 1:15).9

KNOWLEDGE OF GOOD AND EVIL

In various ways many animal species exhibit what theologian Edward Schillebeeckx and ethicist Patricia McAuliffe call *negative contrast experience* (McAuliffe 1993, 1–5; cf. Schillebeeckx 1969). For instance, the experience of pain often indicates that a situation or stimulus is not conducive to the fullest possible flourishing or continuation of life. Human instances of negative contrast experience are unique in that *humans-being* are able to construe pain, loss, and the prospects thereof in terms of good and

evil. This human possibility is the possibility not only of pain, but specifically of suffering (Edwards 1999, 37). But with this possibility of passion also comes the possibility of compassion, meaning that a self-conscious knowledge of good and evil is ambivalent and constitutes human persons as those creatures who can relate to one another and their natural environments with freedom and responsibility, in cooperation or conflict. As Zygon contributors like Hefner (1993a, 77–101; cf. 1993b), Donald T. Campbell (1975, 234–49), Holmes Rolston III (1994, 205–29), and Patricia A. Williams (2000, 783-812; cf. 2001) have all pointed out, struggle and conflict within a given species' or specimen's natural and/or social settings often catalyze the emergence of those adaptations and capacities which allow for ever greater cooperation. Carl Sagan once surmised that the one "who had a stone axe was more likely to win a vigorous difference of opinion in Pleistocene times. [...] Even at the time that the Eden story was written, the development of congnitive [sic] skills was seen as endowing [humanity] with godlike powers and awesome responsibilities: 'Behold, the man is become as one us, to know good and evil [...].' [...] Civilization develops not from Abel, but from Cain the murderer. [...] The fall from Eden seems to be an appropriate metaphor for some of the major biological events in recent human evolution" (1977, 92–96). 10

Fall and Original Sin

Thus, in speaking of the fallenness or original sinfulness of humanity from a second naïveté standpoint, one must do so in terms of the coemergence of the image of God and the knowledge of good and evil within—and because of—a socio-biological milieu already characterized by both cooperation and conflict. The ethical freedom and possibilities open to every human person are conditioned by this genetic and cultural heritage. Acting out of this original ambivalence of finiteness and freedom, every *human-being-and-becoming-in-relation* contributes to this history of good and evil, which is original to the human species.

The ability to act in cooperation or conflict long precedes the emergence of the ability to construe social relations in terms of good and evil. As individuals and as a species, we "stumble upon" the original ambivalence of this creaturely nature, this quantitatively and qualitatively unique capacity for both good and evil. As individuals and as a species, *humans-being* realize in hindsight that ethical freedom is very much conditioned by the genetic and cultural heritage that propels us to both the good and evil possibilities of our *being-and-becoming-in-relation*. In this way, and keeping in mind a second naïveté interpretation of the *image of God* and the *knowledge of good and evil*, *humans-being-and-becoming-in-relation* have emerged as fallen creatures who are originally sinful.

But does this genetic and cultural conditioning of human freedom exempt human persons from ethical responsibility vis-à-vis ourselves, one another, our natural environments, and God? As the Apostle Paul quipped, "me genoito"—"hell no!" (Romans 6:2, in more idiomatic translation). As human freedom has emerged within its genetic and cultural history from the bottom-up, it has also gained a top-down influence on humanity's genetic and cultural future. In part the human condition means not having to settle for its givenness. As Arthur Peacocke words it, "we are capable of forms of happiness and misery quite unknown to other creatures, thereby evidencing a 'dis-ease' with our evolved state, a lack of fit which calls for explanation and, if possible, cure" (2001, 172-73). In other words, this second naïveté construal of the image of God, the knowledge of good and evil, fall, and original sin opens up to corresponding portrayals of Christian ethics, Christology, soteriology, and eschatology. 11 Stemming from its hermeneutical significance for Christian anthropology, sociobiology may aid theologians in reformulating these interrelated doctrines with increased clarity, intellectual honesty, and relevance for audiences today.

Notes

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- 1. All biblical quotations are taken from the NASB unless otherwise noted.
- 2. Independent of any reference to contemporary scientific findings, biblical scholars such as John F. A. Sawyer (1992, 64–73) and Andreas Schüle (2005, 1–20) characterize the garden narrative of Genesis 2–3 as an expanded commentary on the image of God verses at the end of chapter 1. For these exegetes God's first person plural address in Gen 3:22 parallels that of 1:26. The Statements, "Let us make [hu]man[kind] in Our image" and, "Behold, the [hu]man has become like one of Us, knowing good and evil" frame a narrative that depicts the creative process resulting in the completion of the image of God. Sawyer, Schüle, and other biblical scholars such as Phyllis A. Bird (1981) find the "knowledge of good and evil" to be an ambivalent kind of wisdom which allows humankind to "subdue" the earth and "rule over" its species. This interpretation makes good sense of these harsh verbs of dominion—*kabbash* and *radah*—in Gen 1:28, reversing the presupposition that human life prior to its so called "fall" was one of ease. These exegetes describe Genesis 2–3 as a mythic narration of how humanity has become self-conscious of the possibilities of both fulfillment and frustration—good and evil—intrinsic to creaturely existence. This ambivalent knowledge is constitutive of human being, unique among earthly creatures, informative of how human persons relate to one another and to God, and/as part of what makes humankind "like God" as bearers of the divine image and likeness.
- 3. What's more, in their narrative construal of divine and human nature, these ancient symbols of the *image of God* and the *knowledge of good and evil* are arguably more commensurate with the contemporary state of natural- and social-scientific disciplines than they are with most aspects of the medieval and modern formulations of fall and original sin, especially where they pertain to "original justice" and "original guilt."
- 4. Furthering this notion of relationality is the likelihood that *Homo sapiens*, like other animal species, have polygenetic origins. Contrary to a literal interpretation of Genesis 3 or the so called "myth of mitochondrial Eve," *Homo sapiens* probably evolved as such in a population of several thousand or more individuals rather than descending from a primordial first pair (Ayala 1998, 35–36).

- 5. Concerning how scientific modes of explanation open up to theological ones as distinct but mutually informative "levels," "layers," or "types of explanation," see especially Ian Barbour 1997, 90–93, 100–05, 140–41; Clayton 2004, 22–23; and John Haught 2006, 16–19, 69–76.
- 6. As Ricoeur defines it, a myth is "not a false explanation by means of images and fables, but a traditional narration which relates to events that happened at the beginning of time and which has the purpose of providing grounds for the ritual actions of men [sic] of today and, in a general manner, establishing all the forms of action and thought by which man understands himself in his world" (1967, 5).
- 7. Without the space to do so in this essay, I would like to put forward the collaborative works of Mary Gerhart and Allan Melvin Russell (which is indebted to Ricoeur) as providing a precise hermeneutical framework through which to interface what they would call the biblical and scientific "fields of meanings." In an instance of what they term "metaphoric process," the equation of the evolved and evolving world of science and the created and fallen world of the Bible forces a distortion in the shape of the conceptual field of meanings to which the terms image of God, knowledge of good and evil, fall, and original sin belong (Gerhart and Russell 1984; 2001).
- 8. As Ricoeur puts it, "the second naïveté would be a second Copernican revolution: the being which posits itself in the *Cogito* has still to discover that the very act by which it abstracts itself from the whole does not cease to share in the being that challenges it in every symbol. All the symbols of guilt—deviation, wandering, captivity—all the myths—chaos, blinding, mixture, fall—speak of the situation of the being of man in the being of the world" (Ricoeur 1967, 356; cf. McAuliffe 1993, 87–88).
- 9. I am especially indebted to Karl Rahner ([1967] 1997; 1972, 28–45; 1978), Denis Edwards (1999), Catherine Mowry LaCugna ([1973] 1991), and Jürgen Moltmann ([1981] 1993) for this depiction of the *imago Dei*.
- 10. As Haught has come to realize, "Clearly the natural world has never been a paradise, contrary to what a literal reading of Genesis may suggest" (2006, 170). Not surprisingly, the same can be said of the cultural world that has emerged from the natural.
- 11. From a Christian perspective, a robust theology of the incarnation binds together all these theological *loci*, since in traditional Christology, Jesus fully reveals both divinity and humanity in the context of salvation history—divinity in its triunity, and humanity in its fullest possible flourishing, in both creation and new creation (resurrection). Replete in the biblical and theological witness is the understanding that the incarnation takes place against the backdrop of humanity's already fallen condition—the socio-biological matrix of genetic and cultural heritage that has fallen short of attaining the fullest possible flourishing of each and every human person and the social and natural environments to which we owe and ultimately surrender our lives. As the *imago Dei* properly so-called, Jesus Christ reveals and exposes both what is redeeming and what requires redemption in human *being-and-becoming-in-relation*. He shows that *humans-being* are capable of loving their neighbors—even their enemies—as themselves, just as they remain capable of crucifying the bearer of this good news. In sum, the cross and resurrection of Christ, as eschatological images of God and humanity, reveal, overcome, and transfigure the possibilities open to human *being-and-becoming-in-relation*.

REFERENCES

- Auld, Graeme. 2005. "imago dei in Genesis: Speaking in the Image of God." Expository Times 116:259–62.
- Ayala, Francisco. 1998. "Human Nature: One Evolutionist's View." In Whatever Happened to the Soul: Scientific and Theological Portraits of Human Nature, ed. Warren S. Brown et al., 31–48. Minneapolis, MN: Fortress Press.
- Barbour, Ian G. 1997. *Religion and Science: Historical and Contemporary Issues*. San Francisco: Harper Collins.
- Bird, Phyllis A. 1981. "Genesis 1:27b in the Context of the Priestly Account of Creation." Harvard Theological Review 74(2):129–59.
- Clayton, Philip. 2004. Mind and Emergence: From Quantum to Consciousness. Oxford: Oxford Univ. Press.

- ——. 2006. "Theology and the Physical Sciences." In *The Modern Theologians: An Introduction to Christian Theology Since 1918*, ed. David F. Ford and Rachel Muers, 342–56. Malden, MA: Blackwell.
- Campbell, Donald T. 1975. "The Conflict Between Social and Biological Evolution and the Concept of Original Sin." *Zygon: Journal of Religion and Science* 10:234–49.
- Deacon, Terrence W. 1997. The Symbolic Species: The Co-Evolution of Language and the Brain. New York: W.W. Norton & Company.
- Edwards, Denis. 1999. *The God of Evolution: A Trinitarian Theology*. New York: Paulist Press. Gerhart, Mary and Allan Melvin Russell. 1984. *Metaphoric Process: The Creation of Scientific and Religious Understanding*. Fort Worth: Texas Christian Univ. Press.
- . 2001. New Maps for Old: Explorations in Science and Religion. New York: Continuum. Haught, John F. 2006. Is Nature Enough? Meaning and Truth in the Age of Science. New York: Cambridge Univ. Press.
- Hefner, Philip. 1993a. "Biological Perspectives on Fall and Original Sin." *Zygon: Journal of Religion and Science* 28:77–101.
- . 1993b. *The Human Factor: Evolution, Culture, and Religion.* Minneapolis, Minn.: Fortress Press.
- Kerr, Fergus. [1986] 1997. Theology after Wittgenstein. London: SPCK.
- LaCugna, Catherine Mowry. [1973] 1991. God For Us: The Trinity and Christian Life. San Francisco: Harper Collins.
- McAuliffe, Patricia. 1993. Fundamental Ethics: A Liberationist Approach. Washington, DC: Georgetown Univ. Press.
- Moltmann, Jürgen. [1981] 1993. *The Trinity and the Kingdom*. Minneapolis, Minn.: Fortress Press.
- Peacocke, Arthur. 1979. Creation and the World of Science. New York: Oxford Univ. Press.
- . 2001. Paths From Science Towards God: The End of All Our Exploring. New York: Oneworld Publications.
- Polkinghorne, John. 1996. The Faith of a Physicist: Reflections of a Bottom-Up Thinker. Minneapolis, MN: Fortress Press.
- Rahner, Karl, SJ. [1967] 1997. *The Trinity*, trans. Joseph Donceel, with introduction, index, and glossary by Catherine Mowry LaCugna. New York: Crossroad.
- ——. 1972. "Theology and Anthropology." In *Theological Investigations* (23 vols.), vol. 9, trans. Graham Harrison, 28–45. New York: Herder and Herder.
- ——. [1978] 2005. Foundations of Christian Faith: An Introduction to the Idea of Christianity, trans. William V. Dych. New York: Crossroad.
- Ricoeur, Paul. 1967. *The Symbolism of Evil*, trans. Emerson Buchanan. New York: Harper & Row.
- Rolston, Holmes III. 1994. "Does Nature Need to Be Redeemed?" Zygon: Journal of Religion and Science 29:205–29.
- Sagan, Carl. 1977. The Dragons of Eden. New York: Ballantine.
- Sawyer, J. F. A. 1992. "The Image of God, The Wisdom of Serpents, and the Knowledge of Good and Evil." In *A Walk in the Garden: Biblical, Iconographical and Literary Images of Eden*, ed. Paul Morris and Deborah Sawyer, 64–73. Sheffield: JSOT Press.
- Schillebeeckx, Edward. 1969. *God the Future of Man*. Translated by N. D. Smith. London: Sheed & Ward.
- Schüle, Andreas. 2005. "Made in the 'Image of God': The Concepts of Divine Images in Gen 1–3." Zeitschrift für die Alttestamentliche Wissenschaft 117:1–20.
- Taylor, Charles. 1985. *Human Agency and Language: Philosophical Papers*, Vol. 1. Cambridge: Cambridge Univ. Press.
- Van Huyssteen, J. Wentzel. 2006. Alone in the World? Human Uniqueness in Science and Theology. Grand Rapids, MI: William B. Eerdmans.
- Williams, Patricia A. 2000. "Sociobiology and Original Sin." Zygon: Journal of Religion and Science 35:783–812.
- Wittgenstein, Ludwig . [1953] 1973. *Philosophical Investigations*, trans. G. E. M. Anscombe. New York: Macmillan.