

THE RATIONALITY OF THE COSMOS: A STUDY OF T. F. TORRANCE AND DUMITRU STĂNILOAE

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Abstract: *This essay examines the thought of T. F. Torrance and Dumitru Stăniloae regarding the rationality of the world, contending that, while approaching this topic from different directions, the two theologians are deeply complementary. Two topics within this theme are examined in detail: (1) the objective rationality of the world; and (2) the contingency of the world. In conclusion, this essay argues that both theologians are working toward a vision of the world within a unified, theologically grounded outlook.*

Despite his extensive contacts with Orthodox theologians during his long and distinguished career as a theologian, professor, and ecumenist, there is no reference in T. F. Torrance's published writings to the Romanian Orthodox theologian Fr. Dumitru Stăniloae (1903–1993). This is perhaps surprising, since Stăniloae is generally considered to be one of the greatest Orthodox theologians of the last century.¹ However, Stăniloae lived, taught, and wrote for most of his life under one of the most repressive regimes of Communist Europe, which drastically restricted his freedom of movement and communication.² He also wrote in Romanian, which further reduced his potential readership. These facts likely explain why, although Stăniloae refers to Torrance in two of his key essays, Torrance seems to have been completely unaware of his work.³ Only now is Stăniloae beginning to receive a portion of the attention he deserves, as his

1 Kallistos Ware, foreword to *The Experience of God* (Brookline, MA: Holy Cross Orthodox Press, 1994), 1:ix.

2 Like many Orthodox churchmen in Romania, he was actually imprisoned by the Communist authorities for several years (1958–1963).

3 These references to Torrance's essay "Spiritus Creator: A Consideration of the Teaching of St Athanasius and St Basil," can be found in Chapters 1 and 3 of *Theology and the Church* (Crestwood, NY: St Vladimir's Seminary Press, 1980).



Orthodox Dogmatic Theology is being translated into Western tongues⁴ and academic studies are bringing him to the attention of academic theologians in the West.⁵ However, much work remains to be done both in translation and elucidation of this great theologian, who has so much to say to the contemporary world.⁶

A major task of Orthodox theology today is thus to bring the enormous riches of Stăniloae's theology into dialogue with those whom, because of linguistic and political barriers, he did not interact with in life. An important figure among these potential interlocutors is the Scottish Reformed theologian T. F. Torrance. Although they approach the topic from different directions, both Torrance and Stăniloae are deeply concerned about the place of the created, material world in Christian life and thought. This is evinced in Torrance primarily by his dialogue with scientific thinking: regarding the fact that God reveals himself within the "creaturely objectivities" of this world, he writes, "Thus arising out of the heart of theology there is an unquenchable interest in the scientific understanding of creaturely being, and for the whole fabric of worldly existence as the medium in which God has placed man."⁷ The same concern is shown in Stăniloae by his thoroughly anthropocentric and teleological understanding of the cosmos: "Salvation and deification undoubtedly have humanity directly as their aim, but not a humanity separated from nature, rather one that is ontologically united with it. For nature depends on man and makes him whole, and man cannot reach perfection if he does not reflect nature and is not at work upon it."⁸ Both theologians are rooted in the fathers, and both clearly

4 *Teologia Dogmatica Ortodoxa*, 3 vols. (Bucharest: Editura IBM al Bor, 1978), has been partially translated into French: *Le génie de l'Orthodoxie* (Paris: Desclée de Brouwer, 1985); and completely translated into German: *Orthodox Dogmatik*, 3 vols. (Zurich: Gerd Mohn, 1985). In the English edition, the editors have split each Romanian volume in two, creating six volumes. Thus far, five of these have been released under the title *The Experience of God* (Brookline, MA: Holy Cross Orthodox Press, 1994, 2000, 2011, 2012, 2012). A detailed table of contents, translated from the Romanian edition, can be found in Charles Miller, *The Gift of the World: An Introduction to the Theology of Dumitru Stăniloae* (Edinburgh: T&T Clark, 2000), 105–15.

5 The most recent major study is Radu Bordeianu, *Dumitru Stăniloae: An Ecumenical Ecclesiology* (Edinburgh: T&T Clark, 2013).

6 Stăniloae's bibliography rivals Torrance's in terms of output: for a complete listing up to its date of publication, see the festschrift *Persoana și Comuniune* (Sibiu: Editura și tiparul Arhiepiscopiei ortodoxe Sibiu, 1993), 16–67 (available online).

7 Thomas F. Torrance, *Theological Science* (Edinburgh: T&T Clark, 1996), 57.

8 *The Experience of God*, 2:1. Ultimately and precisely, Stăniloae's cosmology is *Christocentric*; however, relative to some contemporary strains of thought regarding theology and ecology what stands out in Stăniloae is his profound concern for man as the

see in Christian dogmatics the potential for a theologically informed “basic outlook” on the world that brings the wisdom of Christian tradition to bear upon the besetting dualisms of modern culture, such as those between person and nature in anthropology and cosmology, and God and creation in science and theology.

I. The World: Its Objective Rationality

Torrance’s interest in what he calls “fundamental attitude” or “basic outlook” (drawing primarily on the German *Weltbild*) goes back almost to the beginning of his career. In one of his key early essays, he writes, “even the conclusions of our abstract thinking do not really arise from the logical basis on which they seem to repose. They come from something much deeper, a certain habit or set of mind which gives these arguments their real force.” Even scientists and metaphysicians do not reason without an “elemental orientation of mind” chosen prior to positive knowledge and analysis.⁹ Torrance’s interest in this aspect of thought persists throughout his later work, and is a hallmark of his writings on the dialogue between science and theology. Probing deeper into the history of ideas and modern scientific thinking, Torrance realized that a distinctive element of contemporary physics was that it forced scientists to reckon with the fact that they can no longer see themselves as neutral with regard to the basic design of the cosmos, a key aspect of *Weltbild*: “Hence we are forced to grapple with cosmological questions and to adopt a fundamental attitude to the universe as a whole.”¹⁰ This brings science into conversation with theology, for theology is also concerned with seeing the world in a particular way, a way that allows for the reality of divine revelation in space and time.

Common to both scientists and theologians in their fundamental outlook on the world, Torrance tells us, is a commitment to the objective rationality of the universe and man’s ability to apprehend it. Both claim to have knowledge about reality and not merely about their own subjective states. In regard to scientific knowing, in our inquiry into something we seek to align our minds with the *nature* of that thing: “knowledge in any field is governed by the nature of

center and goal of the created order.

9 “Faith and Philosophy,” *Hibbert Journal* 45 (1948–9): 237. Torrance is paraphrasing an insight from Dilthey.

10 Torrance, *Ground and Grammar of Theology* (Charlottesville, VA: University Press of Virginia, 1980), 45.

its object as it is progressively disclosed to us."¹¹ Our ultimate aim is to allow our minds to be passively receptive of the objective structure of the reality under consideration; thus, science is in service of the "material logic" or "inner logic" in things manifested in their real interconnections and relations.¹² To get to this state of passivity, however, requires a lot of active work. To begin with, one must ask questions in the right kind of way: "This means that as we seek to penetrate into the rationality of something, our inquiry must also cut back into ourselves and into our presuppositions;"¹³ in other words, "man with his questions must be questioned down to the roots of his existence before the object."¹⁴ Thus, concepts formed in the process of inquiry must not be thought of naively as simple reflections of objective reality; rather, they are "disclosure models," heuristic instruments through which we inquire into the reality under consideration. The formation of these models requires human ingenuity: "he [the scientist] must act with imagination and insight in detecting and developing the right clues and act creatively in constructing forms of thought and knowledge through which he can discern the basic rationality" of the thing.¹⁵ There is thus a movement between activity and passivity in the cognition of an object:

The reason is actively at work in constructing the model or developing the analogue as it puts its questions to nature and elicits its answers, but throughout the reason submits itself to the objective realities and seeks to cognize them passively through its theoretic constructions.¹⁶

Throughout this whole process the inquirer must assume that what he is seeking to know is in fact intelligible: "The scientist does not doubt the object of his inquiry, for he is committed to a profound belief in its intelligibility, otherwise he would not be involved in its investigation."¹⁷

This commitment implies both critical detachment and intense, personal attachment. The scientist must be dedicated to pursuing knowledge of his object: his passionate attachment must be so great that he is willing be detached from his own preconceptions about the object.¹⁸ This latter requires

11 *Theological Science*, xix.

12 *Ibid.*, 262; cf. 269.

13 *Ibid.*, xi.

14 *Ibid.*, 120.

15 *Ibid.*, 318.

16 *Ibid.*, 288.

17 Torrance, *God and Rationality* (Edinburgh: T & T Clark, 1997), 8.

18 Cf. Torrance, *Theological Science*, 135.

a purification, not an elimination, of subjectivity, in which the scientist continually rids himself of false preconceptions in the process of further inquiry.¹⁹ The primary requirement here is intense self-criticism: "It is not normally the object that is responsible for our failure to observe or cognize it aright but we ourselves;" "true questions are a form of self-criticism."²⁰ Self-criticism is coupled with social criticism; for, also inhibiting the scientist's grasp of the object is the social "baggage" embodied in his language and culture, which often contain metaphysical beliefs that have to be brought to light, examined, and often reconstructed before new concepts more closely aligned with reality can be formed.²¹ Torrance does not flinch from speaking of this self-criticism, in science as well as theology, as a kind of *repentance* in the face of reality: "Objectivity in theological science, like objectivity in every true science, is achieved through rigorous correlation of thought with its proper object and the self-renunciation, repentance and change of mind that it involves."²²

In fulfilling this task, man brings "mute" creation to articulate speech, serving a special role before God: "Man as scientist can be spoken of as the priest of creation, whose office it is to interpret the books of nature written by the finger of God." By communicating the wonders of creation, the scientist, knowingly or not, serves the creator: he "bring[s] it all into orderly articulation in such a way that it fulfills its proper end as the vast theater of glory in which the Creator is worshipped and hymned and praised by his creatures."²³

While Torrance sees the objective rationality of the world as an article of faith in science and theology,²⁴ being primarily concerned with the actual act of knowing, Stăniloae is interested in the larger theological framework within which Christian thought is committed to the objective rationality of the cosmos. This, he tells us, is grounded in the doctrine of creation:

19 Ibid., 93. Torrance here is drawing on the thought of Michael Polanyi.

20 Ibid., 121; cf. 125

21 Ibid., 221; cf. 266

22 Torrance, *God and Rationality*, 10. One notes a similarity here between Torrance's epistemology and Stăniloae's presentation of the knowledge of God in creation in *Orthodox Spirituality* (South Canaan, PA: St Tikhon's Seminary Press, 2002), 203–223. Torrance is pointing to the ascetic dimension of thought that is so prominent in the Orthodox tradition.

23 Torrance, *Ground and Grammar of Theology*, 6

24 A major aspect of Torrance's work on the boundary between science and theology is his teaching, drawn from Polanyi, that *faith* is a necessary part of any rational undertaking, not something opposed to reason: see his essay in *Belief in Science and Christian Life: The Relevance of Michael Polanyi's Thought for Christian Faith and Life*, ed. T. F. Torrance (Edinburgh: Handsel Press, 1980), 1–27.

The cosmos is organized in a way that corresponds to our capacity for knowing. The cosmos – and human nature as intimately connected with the cosmos – are stamped with rationality, while man (God’s creature) is further endowed with reason capable of knowing consciously the rationality of the cosmos and of his own nature.²⁵

Stăniloae, steeped in the theology of St. Maximus the Confessor, ties the rationality of the world to Maximus’ doctrine of the “*logoi* of beings,” that is, the divine thoughts or reasons about creation that are manifested in actual created things. Stăniloae writes, “Created things are the created images of the divine reasons given material form.”²⁶ According to Maximus, the *logoi* are the eternal plans and purposes God has for the whole hierarchy of created being, from the lowliest plant to the most exalted angel: “For having the *logoi* of beings, pre-established before the ages, in his good will God founded the visible and invisible creation according to them, by his Word and Wisdom making all things at the proper time, both what is universal and what is particular.”²⁷ While not identified with created beings, the *logoi* are reflected in actual created beings, and, through man’s use of his own God-given faculty of rationality, purified from the passions, he can discover the *logoi* in creation. Maximus is primarily interested in what the *logoi* tell us about God and about the origin and end of man within the whole economy of creation.²⁸ Stăniloae, while basing himself on Maximus, uses the doctrine of the *logoi* to shed light on the meaning and purpose of rationality in non-human creation.²⁹

25 *The Experience of God*, 1:2.

26 *The Experience of God*, 3:1.

27 PG 91:1080A. For the central text on the *logoi*, see the whole of *Ambiguum 7* (PG 91:1068D-1101C). English translation and critical edition by Monk Maximos of Simonopetra, *The Ambigua to Thomas and the Ambigua to John* (Washington, DC: Dumbarton Oaks Medieval Library, forthcoming). The translation here is my own, though heavily indebted to the work of Monk Maximos of Simonopetra.

28 Maximus’ doctrine of the *logoi* has many dimensions. Here I only touch on their importance to his cosmology. Several full treatments have been written in recent years: see, *inter alia*, the study by Torstein Tollefson, *The Christocentric Cosmology of St. Maximus the Confessor* (Oxford: OUP, 2008). Stăniloae did his own translation and commentary of the *Ambigua*. A French translation of the footnotes from this edition can be found in *Sainte Maxime le Confesseur, Ambigua*, trans. Emmanuel Ponsoy (Paris: Éditions de l’Ancre, 1994), 375–540.

29 Like Maximus, Stăniloae has a complex understanding of the *logoi*. While he shares much in common with Maximus, what stands out in Stăniloae’s thought in relation to his predecessor is the amount of attention he gives to non-human creation, particularly in the second English volume of his *Dogmatics*.

The key to Stăniloae's insight into the rationality of the created order is found in the personalist dimension of his thought, particularly in the dictum that rationality implies and is constitutive of *relationality*: "Everything which is an object of reason can only be the means for an interpersonal dialogue."³⁰ Like many Roman Catholic and Orthodox theologians of his day, Stăniloae was deeply influenced by personalist philosophy and the notion that man's being is constituted by dialogue, both with God and with his fellow humans. Stăniloae also emphasizes the importance of *nature* in this dialogue, teaching that the rationality of the natural order invites, and provides the basis for, divine-human communion. In critiquing a form of extreme personalism that would overlook the world, he writes,

Nor do we contest the fact that the human person cannot experience himself fully except in relation with another human person or that this experience is most marked in loving relationship with the other. But over and above this we add: the human being cannot exist apart from his relationship with nature. The three together make up an inseparable whole: I-Thou-Nature.³¹

Rationality implies speech and invites conversation, and it is the rationality of the natural world that forms the primary content of this conversation. The initiator of this conversation is God. If it were not so, if the world had no external *personal* referent in a rational creator, the rationality in the world would be a kind of "absurd rationality," closed in on itself and leading to despair rather than dialogue.³²

The rationality of the world, for Stăniloae, is a form of speech that God has directed to man through the medium of created things. The most salient example of this is Adam's naming of the animals: commenting on Genesis 2:19-20, he writes, "Thus God himself has asked man to speak inasmuch as he urged him or put within his nature the need to discover the words that God himself communicated to man through created things, that is, the meanings given things by God." This was not simply an exercise in rationality, but an invitation calling for man's response: "God bound the human person to make response through the created things he placed before him"; "Through the giving of names to

30 *The Experience of God*, 1:11.

31 *The Experience of God*, 2:198. One is reminded here of Torrance's statement that "In theological science ... we are concerned ... not just with God/man relations, but with God/man/world or God/world/man relations, so that an understanding of the *world* enters into the coefficients of theological concepts and statements," Torrance, *Ground and Grammar of Theology*, 45.

32 *Ibid.*, 98. This is Stăniloae's diagnosis of modern thought (cf. *Ibid.*, 11.)

things, our being began to bring itself into ... act and to develop itself as partner in the dialogue with God."³³

The created world is rich in both meaning and purpose for Stăniloae. Working from this robust theological understanding of created rationality, Stăniloae ends up with a *realist* epistemology, in which man does not construct his knowledge of the world but discovers it.³⁴ The process of knowing can be arduous – as Stăniloae tells us, this is because God is soliciting our continued response to his invitation to dialogue through created things.³⁵ However, once we discover the rationality in things it compels our assent: in a passage reminiscent of Torrance, he writes, "The order of meanings is not the product of the human psyche ... For this order imposes itself on us without our willing it and, through the aspirations it instills within us, surpasses our own psychic possibilities."³⁶ It is the personal dimension of reason, however, which forms the basis of Stăniloae's rejection of constructivist and skeptical epistemologies. The root of the problem of much of modern thought, he maintains, is "depersonalized reason," which denudes the cosmos of the divine presence.³⁷ It is only this personal referent that makes thought possible in the first place: "human thinking would have no content at all had God not first created the things conceived by him at the level of human understanding, or had the created things themselves not possessed a spoken content already given."³⁸

II. The Contingence of Creation

In reading this exegesis of Stăniloae's work on the doctrine of creation, students of Torrance's thought will likely find that a key element seems to be missing:

33 *The Experience of God*, 2:36. In Stăniloae's understanding of the *logoi*, he distinguishes a hierarchy of levels. There are created "reasons," reflective of uncreated reasons or *logoi*; and there are also "meanings" – the higher, more comprehensive aspects of things grasped in their interconnections with other things or in terms of the whole. Like Torrance, Stăniloae believes that it is the synthetic power of *intuition* and not the analytical reason alone that grasps things in their meanings, that is, in their complex inter-relations. Cf. Stăniloae, *Ibid.*, 29; Torrance, *Ground and Grammar*, 30; and *Transformation and Convergence in the Frame of Knowledge* (Grand Rapids: Eerdmans, 1984), 78.

34 Stăniloae does not use the term "realist" to describe his epistemology, though in his insistence that we have genuine knowledge of reality above and beyond our own subjective states, he is clearly operating within a realist framework.

35 *The Experience of God*, 2:37.

36 *Ibid.*, 1:8.

37 *Ibid.*, 3:23.

38 *Ibid.*, 2:34.

contingence.³⁹ Contingence is a concept that holds an important place in several areas of Torrance's thought: not only in his cosmology proper, but also in his understanding of the relationship between science and theology, the history of theology, the history of thought in general, and in his critique and reconstruction of traditional natural theology. Without hoping to cover this topic in the depth that it deserves, we will attempt to isolate a few points of importance. Regarding contingence Torrance tells us, "The contingence of the universe means that it might not have been, or might well have been other than it is, so that we must ask our questions of the universe itself if we are to understand it."⁴⁰ That the universe is contingent means that its existence is not necessary – neither to God nor to itself. Yet, contingence is not to be conceived merely in opposition to what is necessary or determined: such a view would flatten contingence into randomness.⁴¹ For Torrance, contingence means something like "open-structured order," that is, order that is open to influence from outside itself: "By contingence is meant, then, that as created out of nothing the universe has no self-subsistence and no ultimate stability of its own, but that it is nevertheless endowed with an authentic reality and integrity of its own which must be respected."⁴² Contingence has a double aspect: "Contingence has at once an orientation toward God in dependence on him, and an orientation away from God in relative independence of him."⁴³

Contingence is a concept very important to modern physics; however, it is an idea that is not produced by science itself. Rather, it is a concept that can only come from theology and the doctrine of creation *ex nihilo*. In this sense, modern scientific thinking depends heavily on a notion that was introduced to the "basic stock of ideas in our understanding of nature" in Western thought by early Christian theology.⁴⁴ According to Torrance, three masterful ideas originated in early patristic theology have been determinative for the

39 Stăniloae does in fact discuss contingence, both in reference to human use of the world (as I discuss below) and in reference to the world's creation *ex nihilo*: cf. *Ibid.*, 43. However, from Torrance's point of view any doctrine of "eternal reasons" such as Stăniloae's use of the *logoi* would undermine the utter contingence of the world. As I argue below, I believe that Stăniloae and his patristic sources are actually working with a very deep notion of contingence, founded in the doctrine of creation, which ultimately complements Torrance's own interests and concerns.

40 Torrance, *Ground and Grammar of Theology*, 56.

41 Torrance, *Divine and Contingent Order* (Oxford: Oxford University Press, 1981), 43.

42 *Ibid.*, vii.

43 *Ibid.*, 110.

44 *Ibid.*, viii.

subsequent development of scientific thinking: one is the rational unity of the cosmos (united in its character as created by God); and the other two have to do with contingency: the *contingent rationality* and the *contingent freedom* of the universe.⁴⁵ These ideas were cemented and enshrined in Christian theology by the fathers immediately before and after Nicaea because the doctrine of creation *ex nihilo* and the corresponding distinction between the uncreated Son and the created world were key to Nicene thought.⁴⁶ However, in Torrance's interpretation of the history of theology, these notions, so central to Greek patristic theology, were overcome by the influence of Neoplatonic thought, resurfacing again only in the Reformation.⁴⁷

It is medieval, not late patristic theology, however, that receives the brunt of Torrance's criticism. Medieval thought, with its view of the world as "impregnated with final causes" led to a "sacralization of the universe": "This passage of thought [to what was universal rather than particular] took place through a sort of reduction upwards of accidental or contingent phenomena and events to a realm of necessary forms and unchanging essences." This had the effect of inhibiting empirical scientific activity, focusing instead on an exclusively teleological understanding of the universe.⁴⁸ Torrance singles out for particular criticism the notion that the universe exists eternally in the divine intellect. He tells us that Athanasius rejected the idea "that creation exists eternally in the mind of God" along with its correlate, the actual eternity of creation.⁴⁹ He tells us that this idea, in its Augustinian-Thomist form, "smothered" "the all-important concept of the objective contingent rational order of nature."⁵⁰ It implied the

45 Torrance, *Ground and Grammar of Theology*, 55.

46 Expressed formally in the creedal phrase, "begotten, not made." Lying behind this is the theology of Athanasius *Contra Arianos* 3.59-67, where he teaches that the Son is according to God's *nature* while the created world is a product of the divine *will* (and thus contingent).

47 Two key figures here for Torrance are Dionysius and John Damascene. Cf. Torrance, *Ground and Grammar of Theology*, 78. Torrance saw an alternative tradition in the Alexandrian theology of Athanasius, Cyril, and John Philoponos, a tradition that was crushed finally in the person of Philoponos by the reaction to non-Chalcedonian theology (cf. *ibid.*, 127).

48 *Ibid.*, 82.

49 Torrance, *Ground and Grammar of Theology*, 66. I do not believe that Torrance is correct here in the first part of his assertion about Athanasius. He does indeed reject the eternity of the world (a doctrine which would have been known as Origenist), but to my knowledge he does not discuss the eternity of the divine plan for creation. As I argue below, I think this doctrine is supported by the doctrine of divine providence, which Athanasius defends against the Epicureans (*De Incarnatione*, 2).

50 Torrance, *Transformation and Convergence in the Frame of Knowledge*, 3.

necessity and even eternity of the world, depending as it did on the notion that God is "First Cause" of the universe in an Aristotelian sense.⁵¹ The result of all this, Torrance writes, is "the *loss of contingency*."⁵² This was only remedied in the Reformation, with its emphasis on God's relation to the world as an active one – *actively* bestowing grace and redemption, which "preserves its [the world's] utter contingency and obstructs its divinisation."⁵³

Torrance's rather sweeping appraisals of the history of theological thinking about the relation between God and the world have all of the benefits and problems that such generalizations usually have. Without debating the details of Torrance's interpretation of history, we will discuss a few points of importance. Torrance emphasizes the contingency of creation, its non-necessary and non-eternal character. Yet, there is a corresponding problem that he does not address: does God *change*? Is creation really something "new" for God in an absolute sense, as Torrance seems to tell us?⁵⁴ If so, what would that do to our understanding of divine *providence*, which (in both its Latin and Greek forms) teaches that God *foresees* and *foreknows* the course of time from eternity, and that from eternity his plans and wills for creation are known to him alone?⁵⁵ Such a doctrine seems to justify the notion of Maximus and Stăniloae's eternal *logoi* of beings. In Torrance's defense, however, there is actually some divergence on this topic between the Greek fathers (primarily Dionysius the Areopagite, Maximus the Confessor, and John Damascene) and Thomas Aquinas; and a brief inquiry into this may allow us to preserve some of Torrance's concerns while also exonerating the Greek patristic tradition from charges of submitting wholesale to Neoplatonic influence.

As Fr. Georges Florovsky points out, the Greek patristic tradition finds its lodestar in the Nicene distinction between uncreated and created, the Son and the world, the divine essence and the divine will.⁵⁶ Key to this distinction is the

51 Torrance, *Divine and Contingent Order*, 6. Torrance is more careful regarding this point than he seems at first. His criticism is not directed at the doctrine of the eternity of the world in the divine intellect *in itself* so much as the implications that are easily (and perhaps falsely) drawn from it.

52 Torrance, *Ground and Grammar of Theology*, 64 (emphasis original).

53 Torrance, *God and Rationality*, 82.

54 Torrance, *Ground and Grammar of Theology*, 66.

55 Clearly Torrance believes in providence: see, for example, *God and Rationality*, 89.

56 "Saint Gregory Palamas and the Tradition of the Fathers," *Greek Orthodox Theological Review* 5:2 (Winter 1959–1960): 129. Florovsky, like Torrance, was deeply concerned with contingency. Torrance recognized this, dedicating *Divine and Contingent Order* to him along with E. L. Mascall and Stanley Jaki, calling them "champions of contingency" (the dedication is only found in the original edition, not in subsequent reprints).

notion that the world is due to a *voluntary* act of God – it is not a generation from the divine essence (as the Arians held, confusing generation and creation); or an involuntary emanation, as the Platonists held. Because the world is due to a voluntary and decisive act of God, it is utterly contingent. However, the divine will is not bound to what happens in time: its decisions are everlasting. Florovsky addresses this apparent conundrum by positing a kind of “second-order eternity” in God which preserves both the non-necessary character of creation as well as eternal existence of the divine will for creation: “The idea of the world, God’s design and will concerning the world, is obviously *eternal*, but in some sense *not co-eternal*, and *not conjointly everlasting* with Him, because ‘distinct and separated,’ as it were, from His ‘essence’ by His *volition*.”⁵⁷ This same concern is evident in the Greek fathers, who actually never use the term “divine ideas,” which derives instead from Thomas by way of Augustine. Dionysius speaks of *logoi* or of “predeterminations” and “divine willings.” Maximus, as we have seen, prefers the term *logoi*; and John Damascene writes of “volitional thoughts.”⁵⁸ Aside from *logoi* (which emphasizes creation’s derivation from the divine Logos), all of these terms emphasize creation’s contingency, its origin in the divine will. Thomas Aquinas, however, compromises this emphasis on two counts in his discussion of the topic in the *Summa*.⁵⁹ First, he speaks of divine *ideas*, drawing on Plato through Augustine, which implies their self-subsistent character; or, at the very least, suggests their isolation from the divine will in the divine intellect, which in turn suggests their static necessity rather than contingency. Secondly, Thomas posits ideas in God for things which are never created – that is, things that, while conceived by the divine intellect, are never chosen by God to create in time. This, too, suggests that thoughts in the divine intellect have a kind of absolute or necessary character, existing in isolation from the divine will.⁶⁰

57 “Creation and Creaturehood,” *Creation and Redemption. The Collected Works of Georges Florovsky* (Belmont, Mass: Nordland, 1976), 3:56. Florovsky may be drawing here on St Maximus’ statement in *Ambiguum* 7, “For he [God] is Creator eternally according to his activity, but things exist *in potentia*, not yet in act” (Ἐπειδὴ ὁ μὲν αἰεὶ κατ’ ἐνέργειάν ἐστι Δημιουργός, τὰ δὲ δυνάμει μὲν ἔστιν, ἐνεργείᾳ δὲ οὐκ ἔτι) (PG 91:1081A).

58 Dionysius *Divine Names* 5.8; John Damascene *De Fide Orthodoxa* 2.2.

59 *Summa Theologiae* 1.15. Though I would argue, contra Torrance, that even here contingency is not totally lost. For an account of Thomas’ doctrine as well as an extensive look at his influences, see Vivian Boland, OP, *Ideas in God According to Saint Thomas Aquinas: Sources and Synthesis* (Leiden: Brill, 1996).

60 *Summa Theologiae* 1.15.3.2. The distinction is between God’s practical and speculative knowledge. For Thomas, there is likely also some connection here to the troublesome distinction between God’s absolute and ordained power, *potentia absoluta* and *potentia ordinata*.

The Greek fathers, working within the fundamental Nicene distinction between essence and will, however, do not expose themselves to these potential problems, and, I would argue, share the same concern as Torrance for contingency.

Torrance, while praising the Reformation emphasis on the contingency and independence of creation, also recognizes its dangers: if the tendency for medieval thought was toward a "sacralization of the universe," the temptation of Reformation thought (embodied in its natural theology) was toward the secularization of culture. Although this made possible the advance of science, it also created a deistic disjunction between God and the world; and, after advances in knowledge made a "god of the gaps" unnecessary, materialism: "scientific concentration upon understanding the universe out of itself had the effect of shutting it up within itself, with consequent widespread loss of meaning in any semantic reference beyond the world."⁶¹ Modern physics has remedied this: "with the end of determinism, and the discovery that the universe is, not a closed, but an open or nonequilibrium system, a genuine contingency is massively restored."⁶² However, powerful forces in Western culture continue to maintain a mechanistic, instrumentalized view of the cosmos – in effect, retaining the degenerate post-Reformation understanding of contingency while refusing to recognize that its roots lie in the Christian doctrine of creation *ex nihilo*. This is particularly evident in the exclusively technological understanding of science, maintained by many today, and its fruit, ecological chaos.⁶³ While Torrance does not spend much space in his writings discussing Christian ethics, he does recognize that *here* there is a moral dimension to the understanding of contingency. Torrance points toward this in a passage on Christian service, easily overlooked, where he tells us that Christian respect and honor for the world as God's creation is the remedy for man's disordered misuse of the world:

if we are to engage in scientific exploration of the universe, in response to the Word of God incarnate in Jesus Christ by whom it was made, we must learn to respect the nature of all created things, using pure science to bring their mute rationality into such articulation that the praises of the Creator may resound throughout the whole universe, without falling into the temptation to exploit nature through an instrumentalist science in the interest of our own self-aggrandizement and lust for power, for then also we would contract out of Christian service as *service* and sin against the hiddenness of Jesus in the world.⁶⁴

61 Torrance, *Ground and Grammar of Theology*, 85.

62 *Ibid.*, 72.

63 Torrance, *Transformation and Convergence in the Frame of Knowledge*, 71.

64 Torrance, *God and Rationality*, 164.

In other words, while we must not “sacralize” the universe, we must not therefore fall into the opposite error of denigrating its goodness. From this remarkable passage it is clear that only a Christian outlook on the world, accepting both contingency and God as the source of contingency, is capable of overcoming the ecological chaos in which we find ourselves, in which both man and nature is abused. What is needed is a *Weltbild* that clarifies Christian responsibility in the world that makes room for a robust Christian understanding of contingency as founded in the fact of creation. Though left unsaid by Torrance, key to this *Weltbild* is *teleology*.

The formation of such a *Weltbild* is a major aspect of Stăniloae’s theological vision; while Torrance points toward the ethical dimensions of man’s place in creation without developing this theme, this comprises a major theme of Stăniloae’s thought. Christian responsibility in and to the world, for Stăniloae, stems from the fact that creation is a *gift* of God to man. *Gift* names both creation’s origin and its *telos*. It is precisely because he has lost the understanding of the world as gift that man has lost his sense of Christian service in the world, detaching science from ethical responsibility:

Left with a narrowly rational knowledge of nature and of his fellow humans, the human being has detached knowledge from the understanding of creation as the gift of God and from the love of God as the one who is continuously bestowing creation as gift, providing the human being with his neighbors as partners in a dialogue of love.⁶⁵

It is here that Stăniloae introduces his own concept of contingency: while Torrance focuses on the contingency of the created world vis-à-vis God, Stăniloae emphasizes its contingency vis-à-vis man. While even man, as created, is contingent toward God, toward non-human creation man takes the role of an “active contingency,” molding and transforming the world, which toward man takes the role of a “passive contingency,” serving man’s needs in a practical way: “God created the world entirely contingent with respect to himself, while in relation to the human person he created the world as something passively malleable to human hands.” The world has this character “so that the human person might be able to exercise his own free and active malleability in relationship to it.”⁶⁶ Stăniloae’s writes of how human rationality interacts with the rationality in things – by taking it up and making it serve human concerns and goals – not simply as use put as transformation: “Every man, depending on his own conscience and freedom, makes use of the different levels inferior to

65 *The Experience of God*, 2:175.

66 *Ibid.*, 44.

himself. And in order to make use of them, man organizes and transforms by his labor the data of the world, imprinting on them his own stamp."⁶⁷ Only through this transformation does the rationality of the world become meaningful in an absolute, rather than merely self-referential, sense.

The world, when man sees it as it truly is – as a gift from God meant to be given back to God and to his neighbor – becomes transparent, manifesting its true purpose: "Man is called to grow by exercising spiritual rule over the world, by transfiguring it, by exercising his capacity to see the world and make of it a medium transparent of the spiritual order that radiates from the person of the Word."⁶⁸ Man's constant temptation is to deny the world's character as gift, seeing it rather as the final reality, an end in itself meant to serve his egotistic passions. He is therefore called, in some cases, to renunciation of the world; "Through the gift of the world, God wishes to make himself known to the human person in his love. Therefore the human person, too, must rise above the gifts he has received and come to God himself who gave them."⁶⁹ This does not mean that the world has no value: rather, "to rise above the things of this world does not mean that these disappear; it means, through them, to rise beyond them."⁷⁰ The profound teleological orientation of human nature in Stăniloae's theology may owe something to the massive shift in Roman Catholic thought initiated by Henri de Lubac and his famous defense of "the natural desire for the supernatural."⁷¹ However, while de Lubac locates the element of transcendence in the human *spirit*, Stăniloae sees the locus of freedom and transcendence in *rationality*. Building on a robust theology of creation, Stăniloae also sees a place for the world in man's transcendent goal: thus, the entire created order, not simply the human spirit, is ordered toward God through the agency of man, who is able to

67 *The Experience of God*, 1:5.

68 *Ibid.*, 102.

69 *Ibid.*, 24.

70 *Ibid.*, 99. Here we see the ascetic dimension, so important to Orthodox theology.

71 See *The Mystery of the Supernatural* (New York: Herder and Herder, 1967). Torrance, in his recognition of 'the end of determinism' in scientific thinking, is also at the forefront of theology in this regard, overturning the closed, Newtonian view of the world (a view similar in its effect to the neo-scholastic 'natura pura') to which much of modern theology was captive. Some recent postmodern theology has also attempted to come to grips with the new view of the world presented by science (such as Catherine Keller, *Face of the Deep: A Theology of Becoming* (London: Routledge, 2003)). However, with his deeper grounding in modern science, Torrance surpasses even this recent work. Compare, for example, Keller's treatment of chaos and indeterminacy with Torrance's masterful exposition in the last chapter of *Divine and Contingent Order*, 84–142.

order and direct it in service to God.⁷² Far from resulting in a “divinisation of the universe,” which Torrance accused medieval theology of fostering, Stăniloae’s teleological vision allows the world to be seen within the larger economy of creation and redemption as an irreducible, though relative, component of human salvation.

III. Conclusion: A Complete Vision

These two theologians, while working with very different areas of focal awareness, are, I believe, deeply complementary. In his dialogue with scientific thinking, and particularly in his concern for the fundamental beliefs forming a *Weltbild* common to science and theology, Torrance provides a deeper theological connection with this key area of human rationality than perhaps any other figure of the modern era. Stăniloae, while showing appreciation for scientific rationality, does not really give this topic the attention it deserves.⁷³ On the other hand, Torrance focuses perhaps too exclusively on scientific *knowledge* as the mode of interaction between man and the world. As Stăniloae’s thought reveals in contrast, only when we see rational scientific knowledge within a larger, teleological vision of the world do its ethical dimensions come into relief. While we surely cannot take God into account in scientific inquiry, as though he could be numbered among the efficient causes in the world,⁷⁴ allowing the objects of rational inquiry to be seen within the larger plans, goals and purposes that God has for creation does not transgress science’s self-limited aims; rather, it opens science up to the larger questions of human existence and purpose.⁷⁵

72 Interestingly, Stăniloae speaks of nature apart from human rationality as “mechanistic,” captive to “automatism” and “repetition” (see, for example, *The Experience of God*, 2:60). Man, as the element within the material world possessing freedom, brings nature out of its captivity to mechanism, ordering it towards himself and his neighbor and, through this service, to God. This vision is probably too anthropocentric for scientific thinking to know what to do with; however, in terms of a fundamental *Weltbild* it radically unites being, knowing, and doing; anthropology and epistemology with ethics in a way that is particularly crucial for our time.

73 See, for example, *The Experience of God*, 2:102.

74 Torrance speaks of this as a “methodological bracketing off of God,” in *God and Rationality*, 96–97.

75 Torrance points towards this conclusion, particularly in his critique of the tendency toward secularism within post-Reformation thought. However, while he points toward a complete vision he does not, finally, provide it. One looks in vain for a full theological doctrine of creation in his works (though he hints at such the principles of such a doctrine in various places; cf. *Scientific Theology*, 301). Perhaps this lack is due to his insistence

Teleology, in fact, has in recent years become a very important concept in scientific thinking, particularly in biology. Torrance notes in several passages biology's mid-century captivity to mechanistic thinking, writing that:

Biology . . . has not yet found its Einstein or perhaps even its Maxwell . . . biology is still largely stuck in the attempt to interpret the field of living structures in mechanistic terms, and therefore in such a way that the distinctive kind of connection manifested in organisms is suppressed or reduced through explanation in terms of molecules alone, in accordance with the laws of physics and chemistry, to the kind of connection that obtains in some physical field (nuclear or perhaps electromagnetic).⁷⁶

The importance of such concepts as "emergence," "information," and "complexity" in recent scientific thinking indicates that the insights of thinkers such as Torrance and his teacher in this regard, Michael Polanyi, have finally come to fruition.⁷⁷ The burgeoning field of epigenetics is a key example among the special sciences. Early thinking about human genetics proclaimed that the discovery of the genome would provide the means to understand not only human illness but every aspect of human behavior.⁷⁸ This hope, however, was built upon a mechanistic understanding of the human organism: one that saw the human as merely a sum of its component parts and completely determined by its genetic code. More thorough research has shown that genes, far from predetermining the human physical makeup and behavior, in fact express or hold back their content in response to a wide range of factors, some of which are in control of the complete human organism.⁷⁹ This demands a more teleological way of thinking about genetics, one which sees genes within a stratified, hierarchical vision of the organism as a whole. It demands, in Torrance's phrase, thinking

that theology and science have totally distinct material content (Cf. *ibid.*, xx), which, of course, cannot be said in a really final sense from a theological point of view.

76 Torrance, *God and Rationality*, 14–15.

77 Polanyi must be particularly credited with seeing the importance of "emergence" as a concept and a potential new paradigm in evolutionary biology. See his *The Tacit Dimension* (1966; repr., Chicago: University of Chicago Press, 2009). John Haught notes the importance of Polanyi's thinking in his volume *God After Darwin*, 2nd ed. (Boulder, CO: Westview Press, 2009).

78 Hence Richard Dawkins' "God gene" and other similarly speculative hypotheses.

79 Other influences may be due to the environment. "Epi-genetics" literally refers to any aspect "above" the DNA that exercises control over the genome. For more information, see the materials on the website of the Genetic Science Learning Center, University of Utah, <http://learn.genetics.utah.edu/content/epigenetics/>.

in terms of “organismic order” rather than mechanistic determinism.⁸⁰ These demands affect not only scientists but also theologians – and particularly those followers of Torrance and Stăniloae who wish to think from within a unified frame of knowledge.

Both of these profound thinkers, while working from different directions, point towards the need for a unified outlook (or *Weltbild*) regarding the world and man’s place within it, one that takes account of the fundamental goodness of the material world, its objective rationality and contingency, while also seeing it in the light of its ultimate destiny within the dialogical relation between God and man. What is at stake, Stăniloae tells us, is not only man’s physical survival but his spiritual development as well: “when nature is ... made use of in conformity with itself, it proves itself a means through which man grows spiritually ... but when man sterilizes, poisons, and abuses nature on a monstrous scale, he hampers his own spiritual growth and that of others.”⁸¹ If we shrink from the imperative of seeing the moral teleology embedded in the world, Torrance tells us, “we sin against the hiddenness of Jesus.” This is surely correct, for the reasons of the world are not bound by self-referentiality; rather, they find their ultimate meaning in a reference beyond themselves to the Divine Logos, the source and goal of all created rationality. As Torrance writes elsewhere, “Truth as we know it consists in the conformity of things to their reason in the eternal Word of God, so that the truth of every created thing is evident only in the light of God Himself.”⁸² To abuse the creation is thus to do violence to the rationality of the world, sinning against its source, the Divine Reason, who not only created the world but became Incarnate within it. To see creation in this light, then, does not elide the contingency of created rationality but firmly establishes it, opening it up to the redemptive and restorative activity of its Creator. Man, as the center of creation, has a clear responsibility in this: as Stăniloae tells us, speaking of the creation of Adam, “creation does not reach its completion until, in humanity, God has revealed to it its meaning. Man appears at the end because he has need of all the things that have gone before him, while all that has gone before man only finds its meaning in him.”⁸³ As both Torrance and Stăniloae affirm, only when man does what he was created to do, uncovering the rationality of the world and offering it up to God as Priest of Creation, does the world find its true purpose. Only here are the besetting dualisms of the modern world finally overcome.

80 Torrance, *Divine and Contingent Order*, 19.

81 *The Experience of God*, 2:3.

82 Torrance, *Scientific Theology*, 142.

83 Stăniloae, *The Experience of God*, 2:12.