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Anti-Reductionist Christian Philosophy in the Twentieth Century: Owen Barfield and the Neo-Calvinists



by Jamin Hübner

Introduction

Modern philosophy, the scientific revolution, and the Enlightenment together forged a powerful combination of ideas and cultural liturgies that affected and continue to affect virtually every area of human life. One key aspect of this era and its effect is a tendency towards *reductionism* of all kinds. Whether in the foundationalist epistemol-

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ogy of Descartes, the atomistic tendencies of physical science, or the all-encompassing metanarratives of “progress” in economic life, one can easily trace the development of this intoxicating social and intellectual phenomenon. Still today, for example, many thinkers in the science-philosophy dialogue continue to wash the smell of Ernest Rutherford’s quip out of their clothes: “All science is either physics or stamp collecting.”¹

But not everyone was (or is) on-board with the Enlightenment project and its tendency to funnel all of life down into a single principle, purpose, or story. The philosopher and critic Owen Barfield (1898-1997), along with Abraham Kuyper (1837-1920), Herman Dooyeweerd (1894-1977), and Dooyeweerd successor Roy Clouser (1937-), fiercely resisted this movement, earning themselves the reputation of being “non-reductionists” or “anti-reductionists.”² There is little direct relationship between Barfield and the aforementioned “Neocalvinists,”³ and on the surface, these two streams of thought couldn’t be more different. Yet, they came to some of the same conclusions on this important subject and even according to similar reasoning. The purpose of this article is to look at how and why each thinker addressed the problem of reductionism, highlight the common threads among their critiques and innovative solutions, and consider the enduring relevance of this particular intellectual sub-tradition.

On Reductionism

If one peruses such reference works as the *Stanford Encyclopedia of Philosophy*, it becomes clear that one of the central concerns surrounding reductionism is a sense of *exclusion* or *elimination*. In order to properly peer through a microscope, for example, one must block off one's vision of everything else.⁴ It is common for reductionism to be associated with physicalist (i.e., materialist) reductionism and ontological eliminativism, but this association is not always appropriate. Idealists like Bishop Berkeley or Johann Fichte either denied the existence of matter or asserted that everything that is real is mental.

A more sophisticated example is offered by emergentists, who speak of reduction without collapsing it into a fuller sense of reductionism. This approach can be attributed to the fact that "Emergent properties are irreducible to, and unpredictable from, the lower-level phenomena from which they emerge."⁵ More specifically, "there are two forms of causality that are not reducible to physical causes," and (at least in Clayton's view) this point is significant because "causality should be our primary guide to ontology."⁶ A magnetic field generated by certain atoms in a certain state introduces a whole new *level of reality* (for a lack of better words), with its own properties and features that simply don't exist on the lower level. Another example is explained by John Searle:

Consciousness is a causally emergent property of systems. It is an emergent feature of certain systems of neurons in the same way that solidity and liquidity are emergent features of systems of molecules. The existence of consciousness can be explained by the causal interactions between elements of the brain at the micro level, but consciousness cannot itself be deduced or calculated from the sheer physical structure of the neurons without some additional account of the causal relations between them.⁷

In the broader purview of Searle's account, there are at least five kinds of reductionisms: (1) ontological,⁸ (2) property ontological,⁹ (3) theoretical,¹⁰ (4) logical or definitional,¹¹ and (5) causal.¹² Other contemporary thinkers, including Michael Tooley, propose a much different fourfold schema:

(1) "strong reductionism with respect to causal relations," (2) "weak reductionism with respect to causal relations," (3) "strong reductionism with respect to causal laws," (4) "weak reductionism with respect to causal laws."¹³ It is not necessary to elaborate on these classifications. But it is apparent that there are many ways of thinking about what it means to "reduce"—and ways to avoid doing it; the results of such reduction can vary.

Despite exceptions, "Most contemporary reductionist as well as eliminativist positions include some commitment to *materialism* or *physicalism*—the view that the physical or material provides the fundamental reductive base."¹⁴ Indeed, as Searle notes in the same aforementioned essay, "In general in the history of science, successful causal reductions tend to lead to ontological reductions."¹⁵ Tooley, likewise, observes that "the history of the philosophy of causation since the time of Hume has been largely the history of attempts to offer reductionist accounts of causal laws and of causal relations, and most philosophers have been content simply to assume that a reductionist approach to causality must be correct."¹⁶

This widely acknowledged trend is particularly vivid in the natural sciences, where the rationalist and materialist bent of the Enlightenment project comes into full swing. As the German liberation theologian Jürgen Moltmann so concisely put it,

The modern world began with the rise of the exact sciences. The sciences became exact through the "reduction of science to mathematics" (*reduction scientiae ad mathematicum*). The concern that guided perception was freedom from natural forces that were not understood, and the mastery over them. For Descartes, it was the concern to make the human being "the lord and possessor of nature"; for the devout Francis Bacon, it was the restoration of the likeness to God by way of lordship over the earth (*dominum terrae*). How can power over nature be acquired through knowledge? Through the application of the old Roman method, *divide et impera*—"divide and rule." If natural formations are split up into their individual parts, and one perceives how they are put together and function, they can be "dominated," and a separate formation can be constructed from their individual parts.¹⁷

It was this type of reductionism—an elevation of the natural sciences and its methods against all others (along with a dogged *legitimation* of this elevation and its results)—that became a serious concern to some twentieth-century thinkers. The isolation, exclusion, and elimination of anything that doesn't *fit* forged many of the key events and ideas of the twentieth century, which was in many ways an epic projection of modern values—and, notably, the bloodiest century in history.¹⁸

This is the broader context through which the work of Barfield and the Neocalvinists should be understood. The problem was not simply the rise of science and decline of religion; it was an ethos of conquering, controlling, and the absurdities resulting from breaking everything apart in hopes of mastering it. This epistemological colonialism alarmed both Barfield and the Neocalvinists, who took it upon themselves to develop viable alternatives.

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Neocalvinist Anti-Reductionism in Abraham Kuyper

In response to reductionism, here is the beginning of Abraham Kuyper's famous lecture "Uniformity: The Curse of Modern Life" (April 22, 1869), delivered from the stage of the Odeon Theater in Amsterdam:

Ladies and Gentlemen, I believe I am within the scope of this lecture series if this evening I ask you to consider with me, from a Christian-historical viewpoint, the false uniformity of our age. This phenomenon is of great interest precisely because the sustained drive of our age toward uniformity is such a dubious feature—I dare say, the *curse*—of modern life.¹⁹

Kuyper was both a theologian and a statesman who tried to make sense of his Calvinist religious heritage during one of the most tumultuous periods of human history. During his lifetime, he witnessed the immediate effects of the Industrial Revolution, global trade, colonialism and mass migrations, the rise of nation states and political

revolutions, and the rise of the modern university and new fields of study that (seemed to) threaten religion itself (e.g., higher criticism, textual criticism, theories of religious origins, Darwinian evolution, economics, anthropology, psychology, etc.), not to mention the first World War. While he is known for many things, perhaps his most well-known intellectual contribution is "sphere sovereignty"—against the backdrop of political hegemony and the modern dualism of sacred vs. secular. Sphere sovereignty was the more practical version of a fuller non-reductionist philosophy that was later developed by his followers.

As an "anti-revolutionary" politician and eventually the Prime Minister of the Netherlands (1901-1905), Kuyper was concerned with upholding order, explains Lew Daly: "Like Groen, Kuyper opposed the secularism and individualism of the French Revolution as the

most dangerous threat to a just social order. These modes of thought threatened to destroy the natural community by elevating individuals and allying them, through individual rights, with the secular state—hence the 'anti-revolutionary' response in Dutch politics."²⁰

Kuyper himself put it this way: "In a Calvinistic sense we understand, hereby, that the family, business, science, art and so forth are all social spheres, which do not owe their existence to the State, and which do not derive the law of their life from the superiority of the state, but obey a high authority within their own bosom; an authority which rules, by the grace of God, just as the sovereignty of the State does."²¹

As a theologian, Kuyper was also concerned about the preservation of the church and maintaining its relevance to every area of life. In his view, there are no disciplines or domains of creation that are truly *secular*, as everything is under the direction of the one, true Sovereign. As religious life became more and more compartmentalized, marginalized, and alienated in modern society, it became necessary for the church to actively *reclaim* God's reign over each area of life. Kuyper's response was the

model of sphere sovereignty: “God established the institutions of various kinds, and to each of these He awarded a certain measure of power. He thus *divided* the power He had available for distribution. He did not give all his power to one single institution but gave to every one of these institutions the power that coincided with its nature and calling.”²²

This model addressed two contemporary problems: the reduction of religious life to a marginalized role (e.g., morality and spiritual things), and the centralization of political power that overstepped its bounds and threatened national independence. Together, the forces of modernity threatened cultural diversity in general, and Kuyper’s modified Reformed theology (hence *neocalvinism*) was the answer.

Yet this model was formulated within the framework of classical western theism and high Calvinist theology (hence *neocalvinism*), as evidenced in specific linguistic choices of the model: “There is a domain of nature in which the Sovereign exerts power over matter according to fixed laws. There is also a domain of the personal, of the household, of science, of social and ecclesiastical life, each of which obeys its own laws of life, each subject to its own chief.”²³

The metaphors for God and power are political (perhaps even feudalistic): “Sovereign,” “domain,” “power,” “fixed laws,” “obeys,” “subject to,” “chief.” Far from being theologically neutral (which, Kuyper realized in other contexts, is impossible),²⁴ these terms reinforce certain conceptions about God, creation, and human relationships.²⁵ However, for Kuyper, still steeped in post-Reformation scholasticism, this framework was simply the “biblical” one and therefore the “right” one; he saw himself as merely relaying timeless, permanent truths in yet a constructive manner that addressed the problems of his time.²⁶

This tradition also, ironically, exhibited its own reductionistic baggage such as the self-authenticating Scripture²⁷ within theological methodology.²⁸ How consistent this overall model was in either protecting against the encroachments of the state or re-empowering the church is also debatable.²⁹ Note, for instance, that the state’s purpose was to “make it possible for the various [social] spheres, insofar as they manifest themselves externally, to interact ap-

propriately, and to keep each sphere within its proper limits.”³⁰ In addition, every sphere (e.g., church, school, business, etc.) was responsible for submitting to the justice of the single state. Kuyper maintained this hierarchy of power in the home under exceptionally rigid patriarchal ideas.³¹ There have also been concerns about how much Kuyper exaggerated the situation, whether about women’s cultural place³² or the impacts of racial intermixing.³³

Despite these issues, Kuyper’s anti-imperialism and anti-reductionistic goals were both understandable and explicit, and they were an outgrowth of the larger problem of uniformity that he had railed against a decade earlier. There, on the stage in Amsterdam, he elaborated the *totalizing* nature of uniformity: “Its attempts to blend all shades into the blank darkness of the grave are becoming ever obvious. Even more shrilly it cries out that in our modern society, everything, however distinctive in nature, must be shaped by one model, cut to a single pattern, poured into one fixed mold.”³⁴

There was no facet of human life or field of knowledge that wasn’t stained by this reductionistic tendency; it could be found with regard to architecture, city design, the collapsing of gender roles, language, science and biology,³⁵ and especially public and political life.³⁶ As he stated in exasperation, “So here we are. Everything has to be equalized and leveled; all diversity must be whittled down...[until] every difference disappears.”³⁷

Neocalvinist Anti-Reductionism in Dooyeweerd and Roy Clouser

Around the time of Kuyper’s death, Herman Dooyeweerd had finished his secondary education at a Neocalvinist school and was attending Kuyper’s Free University (Amsterdam) to study law. There, Dooyeweerd was disappointed that he didn’t see Kuyper’s version of Calvinism being applied to jurisprudence. There, explains Roger Henderson, “He saw a need for ‘the philosophical legal foundations of jurisprudence,’ and was eventually drawn to a study of the philosophy of law for this purpose.”³⁸

After Dooyeweerd brainstormed with his friend and brother-in-law Dirk Vollenhoven, his interests quickly expanded. The two of them began “working on questions of epistemology and the founda-

tions of science from a Christian point of view. From the 1920 letter, we know that one topic of their discussion was the source of epistemological norms, and the nature and basis of their validity.³⁹ By 1922-23, Dooyeweerd realized that Kuyper's idea of *sphere sovereignty* could be applied to jurisprudence and epistemology in general. As each sphere is ruled by its own type of laws, Dooyeweerd stated the following:

[It]is understandable that the newly arising reformational philosophy ... would only acknowledge a biblically anchored idea of law and its correlate, the creaturely subjectum, as its basic philosophical ideas Each fact of human life is subject to its own law. Things have their own place and act in response to their own laws, the laws holding for them. This is why scholarly thought is unable to group variety under a single common denomination, law or logic [And]no single explanation can be produced by analytical means which will furnish us with a legitimate idea of unity.⁴⁰

Instead of Kuyper's *societal* spheres, Dooyeweerd's thought proposed *epistemological* spheres—though these two larger categories were connected. “Natural law,” for example, simply *is* the epistemology of the sphere of government. This way of thinking offered a better alternative to the dualisms of scholastic Thomism, the antimonies of Kant, and the epistemological problems of idealism and realism.⁴¹ Dooyeweerd was “both a pluralist and an antireductionist; he accepted the diversity of created reality as basic.”⁴²

Dooyeweerd proposed fifteen modal law spheres:⁴³

- Spatial: continuous extension
- Kinematic: flowing movement
- Physical: energy, matter
- Biotic/Organic: life functions, self-maintenance
- Sensitive/Psychic: feeling and response

- Analytical: distinction, conceptualization
- Formative: formative power, achievement, technology, technique
- Lingual: symbolic communication
- Social: social interaction
- Economic: frugal use of resources
- Aesthetic: harmony, surprise, fun
- Juridical: due (rights, responsibility)
- Ethical: self-giving love
- Pistic: faith, vision, commitment, belief.

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For Dooyeweerd, this proposal came with a few caveats, as explained by Henderson. First, all concrete entities function in every sphere; so (for example), “anything can be an object of justice.”⁴⁴ Second, all spheres are interconnected and coherent; they display elements of each other. Third, “A conflict between legality and morality is impossible because both orders cover different terrains.”⁴⁵ (One might compare this point loosely/analogically with the view of NOMA, “Non-Overlapping Magisteria,” in the science-religion conversation.⁴⁶)

The problem, however, was how any of the spheres relate to each of the others. In Dooyeweerd's thought, this relationship constitutes the cosmological *law idea*, and this law idea could only originate (rightly) from basic religious conviction, or (erroneously) as an absolutization of one of the law spheres. Either way, this step towards unity was religious: “However hard human reason, which is subject to the law, strains itself to construct a rational unity between the independent spheres of law, it will never succeed. This is a modern repetition of the tower of Babel!... Undoubtedly there is a unity, a divine synthesis in God's creative plan; but unity is a supra-rational one.”⁴⁷

Hence, the title of the major work by Dooyeweerd's successor Roy Clouser was *The Myth of Religious Neutrality*. Clouser's reformulation of Dooyeweerd's thought begins with a discussion surrounding the question “what is a theory?”⁴⁸ There, the problem of reductionism via mental ab-

straction comes to the fore: “By abstracting properties, we create the possibility of asking about the relations between these properties, and of looking for patterns of connections among those relations, all of which are being conceived in isolation from any things or events in which they may occur.”⁴⁹ Abstraction is virtually a necessary (though not sufficient) condition for the kind of reductionism Clouser is critiquing.

In addition, *laws* come into the picture because they are “the most important of the relations that can be discovered” in theories.⁵⁰ Such “properties-and-laws have been abstracted and made into specific areas of study.”⁵¹ Clouser calls these areas “aspects,” and he calls the study of them “sciences.” The fifteen aspects are “only intended to help us understand the major branches of present-day theory making, not to arrive at the one true list of genuine aspects of the world.”⁵²

This practice in epistemology is inescapable: “Without the abstraction of entire aspects, it would not be possible to specify the kind of properties being investigated or the kind of laws being used to explain whatever a theory is seeking to explain.... [Thus] the abstraction of aspects is essential to theorizing.”⁵³ The problem with modernity, then, was that it went from necessary abstraction to *absolutizing* abstraction.

Like Dooyeweerd, Clouser highlighted the challenge of relating aspects to a general theory (ontology in philosophy) and identifying its religious nature. The problem of western philosophy was its reducing all of life to the properties and laws of one or two spheres, without realizing the organic, web-like construction of knowledge—and therefore of reality.⁵⁴ Doing so would be like looking at a beaded necklace and saying, “this bead is holding them altogether” instead of pointing at the string inside all of them. As Andrew Basden explains, “No aspect can be reduced to others, and this proposal explains the diversity. Yet no aspect can be isolated from the others, and this explains the unity.”⁵⁵ Further, as Clouser explains, this framework avoids the pitfall of scientism: “Experiments, although desirable, are often not possible and a theory is not discarded just because it is not subject to experimental testing.... [And] while it is true that there are philosophical theories that have opposed one

another for centuries, this is not because theories of science are always provable while the philosophical theories never are, nor is it because of the presence or lack of experiments.”⁵⁶

Thus, Dooyeweerd’s and Clouser’s understanding of aspects, knowledge, and interrelations of knowledge directly addresses the central problem of empiricism and scientific reductionism.

Anti-Reductionism in Barfield

Barfield’s anti-reductionist philosophy is far less systematic than Clouser’s aspectual philosophy and less politically oriented than Kuyper’s sphere sovereignty. Barfield was concerned with education (relating to knowledge), and especially linguistics (relating to meaning).

The recent move away from classical liberal arts education towards economic specialization and compartmentalization at the modern university deeply concerned Barfield. More concerning, however, were the toxic assumptions underneath this social phenomenon, which was creatively explored in his fictional work, *Worlds Apart*. In it, a physicist, biologist, psychiatrist, lawyer-philologist, linguistic analyst, theologian, retired schoolteacher, and employee of a rocket research station get together at a summit meeting and discuss the problem of the “disagreeable impression of watertight compartments.”⁵⁷ Can such specialists have a meaningful conversation with each other and integrate their knowledge in practical ways? As focused as the question seems, this diverse roster is enough to launch the conversation down a number of rabbit trails.

Not far into the initial phases of the meeting, the reductionistic tendencies of science come to the fore: “This is where modern science came in. Its whole basis—the very thing that was new about it—was the assumption that, if you want to know about *things*, you must assume that they are *merely* things. You must treat them as objects for the senses, but as independent in all other respects of man and his spirit and his values.”⁵⁸

With this basic problem on the table, the impossibility of objectivity in epistemology becomes a talking point: “First they [science enthusiasts] insist on cutting out awe and reverence and wisdom and substituting sophistication as the goal of

knowledge; and then they talk about this method of theirs with reverence and awe and expect us to look up to them as wise and venerable men.”⁵⁹ In other words, there is a double-standard when it comes to the elevation of hard science; it wants to be seen as not only neutral (i.e., unhindered by those pesky *subjective* or *religious* motivations) but even more than neutral (i.e., inherently admirable and respectable) at the same time.⁶⁰

The modern, scientific, and foundationalist epistemology comes with a hidden risk: “Haven’t you got simply a huge inverted pyramid of ideas—mathematics, if you like—erected on a tiny apex of ascertained facts?” asks the character Sanderson [most closely representing Barfield’s own views]. “An apex that is getting smaller and smaller every day? More and more piled on less and less?”⁶¹

Eventually, the character Hunter (the theologian) pushes this issue further to show the impossibility of religious neutrality:

“I have been trying to show you [character Upwater] that you yourself are a supernaturalist—in the sense in which you are using the word—because you always do in practice assume that there is something other than the total process of irrational nature, and that we participate in that other every time we think a valid thought . . . [Y]ou can never, without talking nonsense, obliterate the ultimate cleavage between (a) consciousness itself and (b) that *of which* it is conscious . . . Your denial is like a sentence consisting of the words ‘This is not a sentence.’”⁶²

One might immediately note that the assertion about “the total process of nature” and our participation in it is remarkably similar to Dooyeweerd’s cosmonomic law idea. Furthermore, the *supernaturalist* presumption is essentially the same point made by Clouser regarding the role of “religion.”⁶³

The dialogue continues as Barfield tells a short story that largely overlaps contemporary emergentists.⁶⁴ It also introduces Barfield’s more linguistic-oriented critique of reductionism. The story is about

a person visiting a university, where he is introduced to all the “colleges,” but who, after the tour is over, asks, “but where’s the university?” After this somewhat humorous ending, Dunn (the “linguist philosopher”) is asked if it is good and useful at all to have the word “university” refer to all the “colleges.” Dunn responds,

“Yes, of course it is. Not only useful but necessary for a large number of practical purposes. The confusion only arises—and this is the moral of the story—if you start fancying that the university is itself one of the colleges, or so much like one of the colleges that you can say things about it which only have any meaning when they are said of college-buildings . . . [I]ntroduce a word like ‘university’ into a sentence to which only words like ‘college’ belong, and you will be talking nonsense, though you may believe you are saying something very original and very exciting.”⁶⁵

Like Dooyeweerd, Clouser highlighted the challenge of relating aspects to a general theory (ontology in philosophy) and identifying its religious nature.

This pithy lesson is then used to sharply correct the classic problem of mind-brain reductionism:

Dunn: “No one but a fool would argue that the *word* ‘mind’ and the *word* ‘brain’ mean the same thing. But the question whether some supposed thing called ‘the mind’ is or is not the same thing as something else called ‘the brain’ is a question that cannot be answered for the simple reason that it cannot be asked.”

Ranger: “But it *was* asked!”

Dunn: “So was the question ‘And now where is the university?’ Can’t you see the point? As Hunter said yesterday, the obvious is the hardest thing of all to point out to anyone who is genuinely aware of it.”⁶⁶

Here one sees how important the linguistic dimension can be—because abstraction and reduction occur *through language*.⁶⁷ It is no wonder that Barfield begins his seminal work, *Poetic Diction*, by showing the absurdity of such totalizing:

It is a failing common to a good many contemporary metaphysical theories that they can be applied to all things except themselves but that, when so applied, they extinguish themselves; and experience has taught me that when men are really attached to such a theory, most of them will, after this has been pointed out to them, continue nevertheless to apply it to all things (except itself). The reason is rather that those who must think about language and the world in that particular way have gone further since then and abolished the idea of a “referent” altogether.⁶⁸

Barfield here put his finger on an important trend that would come into fruition in the work of the 1960s-70s’ French intellectuals: modernism’s reductionism in language gave birth to the ultra-reductionistic *postmodern* idea of non/self-referential language, where “there is no outside text” (Derrida) and “socialization ... goes all the way down” (Rorty).⁶⁹ Barfield took issue with this suggestion on several occasions,⁷⁰ and at the forefront of this problem is logical positivism:

Wittgenstein’s *Tractatus Logico Philosophicus*, which Bertrand Russell translated into English in 1922, ... [is the] broom with which ... [he] hoped to sweep away, as meaningless, all statements not related to physically observable or verifiable events, to limit the sphere of man’s knowledge to the increasingly tentative findings of physical science, and to dismiss all other affirmations as meaningless. For all propositions except those from which some observation-statement can be deduced are, as it averred, meaningless, either as misuses of language, or as tautologies.⁷¹

Barfield pulls no punches about how dangerous this trajectory really is:

Before he even begins to write, the Logical Positivist has taken the step from “I prefer not to interest myself in propositions which cannot be empirically verified” to “all propositions which cannot be empirically verified are meaningless.” The next step to “I shall legislate to prevent anyone else wasting his time on meaningless propositions” is unlikely to appear either illogi-

cal or negative to his successor in title. Those who mistake efficiency for meaning inevitably end by loving compulsion, even if it takes them, like Bernard Shaw, the best part of a lifetime to get there.⁷²

The quip about mistaking “efficiency for meaning” deserves special comment. These words were written in the age of automobile assembly lines, the “Roaring ‘20s,” and the central banking experiments of Keynesian economics. Never before was the world producing so much—all by the division of labor, specialization of disciplines, and rigorous application of physical science—in a word, the “old Roman way” of “dividing and conquering” (Moltmann). Barfield then asks the obvious and extremely relevant question: “What is efficiency without *meaning*?”⁷³

Barfield was clear: *when scientific reductionism takes over language itself, the result is meaninglessness in the way that people use language*. It is for the same reason that if words are isolated from sentences, the sentence is no longer an organic whole of any semantic value. To use another analogy, if all language forms (literal, symbolic, figurative) are reduced to binary code or math, the result is an obliteration of human experience. (A poet understands this better than anyone else.) He wrote, “If therefore they succeed in expunging from language all the substance of its past, in which it is naturally so rich, and finally converting it into the species of algebra that is best adapted to the use of indoctrination and empirical science, a long and important step forward will have been taken in the selfless cause of the liquidation of the human spirit.”⁷⁴

Barfield believed that science and logic can clarify and empower but have their limits.⁷⁵ When they don’t, they drag all of life down through the microscope and into the dark void. “Science deals with the world which it perceives,” he warns, “but seeking more and more to penetrate the veil of naïve perception, progresses only towards the goal of nothing.”⁷⁶ Indeed, for Barfield, true science does not *set the agenda* for the human race, or even for knowledge, for “Only by imagination ... can the world be known. And what is needed is, not only that larger and larger telescopes and more and more sensitive calipers should be constructed, but

that the human mind should become increasingly aware of its own creative activity.”⁷⁷

In the book of nature, the whole may mean something, but the details mean nothing; or if they do, we can never know it. The opposite is true, Barfield explains, when we read an actual book. There the meaning of the whole is articulated from the meaning of each part—chapters from sentences and sentences from words—and stands before us in clear, sharp outlines.⁷⁸ The vital question with which Barfield deals is whether science can ever discover how to read the book of nature in *this* way. It would not matter so much if its field were limited to mechanics and physics. But, in fact, man looks more and more to science for guidance on *all* subjects. As we rise in the scale of creation from the lifeless to the living and from the living to the psychic and human—from mechanics to sociology—the question of the *meaning* of what we are dealing with becomes ever more insistent. He wonders if this pursuit of meaning must always be ignored or if science ever learns to supplement its weighing, measuring, and statistics with the systematic use of imagination.⁷⁹

In a word, then, human abstractions and reductions for the sake of categorization and knowledge can never be immortalized and made permanent—at least if one is looking for meaning. This is because meaning is the result of *zooming out*, of placing atoms, words, and persons inside a larger context. Hence, he writes famously, “Words are only themselves by being more than themselves. Perhaps the same thing is true of human beings.”⁸⁰

Similarities and Divergences

Upon further reflection, a number of inordinately specific parallels between Barfield and the Neocalvinists’ anti-reductionism campaign emerge. For example, it is noteworthy that Kuyper’s successor Herman Bavinck made the same point for the “book of scripture” that Barfield made above for the “book of nature.” This is the Neocalvinist doc-

trine of “organic inspiration.” As Bavinck writes, “Organic inspiration is ‘graphic’ inspiration, and it is foolish to distinguish inspired thoughts from words and words from letters. Scripture must not be read atomistically, as though each word or letter by itself has its own divine meaning. Words are included in thoughts and vowels in words. The full humanity of human language is taken seriously in the notion of organic inspiration.”⁸¹ This “organic” model was meant to avoid the reductionism of “dictation theory” and “verbal plenary inspiration” of the written text itself (an idea central to B. B. Warfield, Bavinck’s American colleague at Old Princeton).

Barfield’s passionate arguments are extremely similar to Kuyper’s lecture on the “Curse of Uniformity,” especially Barfield’s reflections on social equalities. “The principle of equality is both a curse and a blessing,” Barfield opines. “It is a blessing, and an indispensable

one, where it belongs, particularly for instance, in the rule of law: it is a curse when it takes the bit between its teeth, or goes to and fro like a roaring lion, seeking what it may devour, because then it involves the reduction of human relations to side-by-sideness, as I’ve called it, and so it eliminates mutual participation.”⁸² Kuyper and Clouser would have applauded. The same goes for Barfield’s distinction between subject (conscious perceiver) and object (the perceived), which modernism threatened to collapse.

Furthermore, it is more generally clear that the topic and systematic activity of abstraction is as central for Barfield, in his non-reductionist enterprise, as for Clouser. Scientists in the natural sciences regularly forget that in their work of finding “material causes” and “classification,” they are in the business of downward-facing (i.e., “lower-level”) abstraction.⁸³ Because the modern sciences were carried away with their own accomplishments and Enlightenment optimism, they assumed that they knew how language worked (and *had* worked). But they were unaware that a *scientific* revolution

Barfield was clear:
*when scientific
reductionism takes
over language
itself, the result is
meaninglessness in
the way that people
use language.*

is intimately connected with a *linguistic* revolution:

The system of mental constructs called mathematics is, I suppose, about as “self-referring” a language form as could well be imagined—and *yet* it is also effective outside itself, effective both in discovery and in operation. So much so, that it has given birth to our present technological civilization. But it is only by returning from time to time from the informal language to the formal language of description that this connection with the natural process can be maintained. Bohm maintains moreover that the unresolved duality between the two language forms has been operating to *conceal* the revolutionary change in language form which has in fact been taking place. There has been a steadily increasing tendency to assume that informal language forms no longer matter much, and that all the real business of physics is transacted in formal language—its informal brother being confined to those invented “models,” whose sole function is to give to the poor layman with no mathematics some sort of fanciful picture of what is being (or perhaps is not being) talked about.⁸⁴

Modernism privileged the quantifiable and literal, and undermined the metaphorical and figurative—to the continued peril of all.

But perhaps the most interesting (and ironically) shared ground between Barfield and the Neocalvinists is their belief in the unity and oneness of the universe—ironic because, in some sense, it is possibly the highest form of reductionism and abstraction. For Kuyper, the universe is God’s creation, not to be confused with the Creator, and *everything* that is not-God is created. For Clouser, the same remains true, but the unification of *all* the aspects of creation is based on logical necessity (i.e., the string holding the beads together). For Barfield, the theosophist, “Spirit... is not that which is perceived, but that which *is*. It is not what we perceive, but what we *are*.”⁸⁵ And “it seems clear to me that by ‘spirit’ we must mean ‘that which is not matter,’ and by ‘that which is not matter’ we mean that part of the *totality* which is not perceptible through the senses. If the totality is ultimately one, as I hold (with Leibniz), then it is perhaps better to speak of one *phase* of the totality rather than one *part* of it.”⁸⁶ These are totalizing ideas—and powerful ones, since the history of reli-

gion has shown this “upward-reductionism” (zooming out: religion, philosophy) to be as potentially intoxicating as “downward-reductionism” (zooming in: physics, biology).⁸⁷

Thankfully, these thinkers are generally aware of the weight of what they are suggesting, and they contend that meaning is not found simply in zooming out to the forest but in the *process* of zooming in and out from the big to the small altogether. However, this all-encompassing perspective on the universe, even if undeveloped, is an important reminder that even in the context of anti-reductionist philosophy and theology, it is impossible to escape generalities and making assertions about the whole of which one knows perhaps very little.

The biggest points of divergence are probably in the role of theological starting points. Barfield does not make his arguments on the basis of classical, Western monotheism (much less a Calvinist flavor). He acknowledges something proprietary about the Christian story; but, in the context of his intellectual concern with the “evolution of consciousness,” he contends that “we are approaching a time when no individual path to salvation, or what you will, will be valid for men, which does not also take consciously up into itself the longer agony of history.”⁸⁸ He believes in a “Divine Spirit,” through whom all persons are connected, and who can be experienced in multiple religious traditions. His critique is more directly practical and aesthetic: a world that continues along this trajectory will crush “the human spirit” entirely.

Kuyper and the Neocalvinists, however, argue from an explicitly theological orientation: scientific reductionism and the curse of uniformity is wrong chiefly because it goes against God’s plan for creation.⁸⁹ A nation-state that continues along this trajectory will result in a colorless, godless, and dangerously untraditional/progressive environment. Despite these differences and others,⁹⁰ however, they seem to matter little in the broader conclusions that each draws.

Resonances of Anti-Reductionism Today

Barfield’s and the Neocalvinists’ anti-reductionist philosophies are probably best viewed as overlapping, complementary projects. The sense of “reductionism,” which each philosophy critiques,

is primarily scientific empiricism (in epistemology) and, with it, physicalist materialism (in ontology), the results of which are shown to be devastating to individuals and societies. Both philosophies locate the genesis of problems in the uncritical abstraction of ideas through language, and both treat the epistemological colonialism of modern thought (especially in the rise in prestige of the natural sciences) as a threat to civilization. The distinctive work of Kuyper and Clouser causes onlookers to pause and ask what we are losing by the changing cultural customs in society and in the new relationships among family, church, education, and state, and if God is being honored. Barfield's distinctive work asks, "If meaninglessness is the result, what good is scientific reductionism? And how divergent must specialists and scholars be before their inability to integrate their research threatens the pursuit of knowledge itself?"

The ongoing importance of this subject can be illustrated in many ways. But one illustration will suffice as a point of closure; it is an essay by Murray Rae titled "Jesus Christ, the Order of Creation," in the recent book *Christ and the Created Order: Perspectives from Theology, Philosophy, and Science*.⁹¹ There, Rae essentially reiterates the arguments of Barfield regarding meaning and the problem of scientific reductionism—and with just as much passion. Only instead of poetry, Rae's analogy is music (particularly, a piece by Chopin). The fact that this kind of argument is still being made—and appears in a volume of this kind—suggests much about its enduring importance. Allow me to quote at length:

Within its own level of explanation, the science of acoustics could in theory deliver an exhaustive account of the sounds that combine to produce Chopin's ballade, of the way those sounds are produced through the vibration of strings on a piano, and even of the unique reverberant environment produced when the ballade is played on a particular piano in a particular venue under particular ambient conditions. Yet

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no one with even a modicum of musical sensitivity is likely to be convinced that this scientific description of the material alterations involved in producing a performance of Chopin's ballade constitutes an exhaustive description of the reality in question. No explanation has yet been given as to why Chopin ordered the sounds as he did All these alterations in the physical environment are products of Chopin's intention, but no amount of study of these material realities alone will sufficiently reveal what that intention was. An order may be discerned, harmonies may be recognized, and a satisfying coherence may emerge, but

if they are divorced from the life of the composer himself, the order, the harmonies, and the melodic coherence of sounds will not reveal the full scope of Chopin's intent, marvel at them though we may. Indeed, we may marvel. There is no reason to doubt, and experience may easily confirm, that a person who listens to the ballade without knowing who

composed it can be profoundly moved.

The musicologist could explain the ways the several melodic themes are woven together. And so on. Truth is communicated by these means, but none of them sufficiently captures the reality before us. Those tempted in this instance to wield Occam's razor will leave us bereft. They will leave us knowing less than there is to be known The sciences contribute their expertise to examine and explain how the world is ordered; poets and visual artists and musicians help us see in a different light the complex interdependence of things; economists, political theorists, and social scientists give insight into the working of human culture and society, while historians provide a further means of contemplating the realms of human action and discerning the consequences of what we do. All these disciplines and more contribute to our understanding of the world.⁹²

No sector of human knowledge has a monopoly on all the rest. The world is rightly experienced as

one and as many, and these are complementary features, not incommensurable realities. While neither Barfield nor the Neocalvinist project is without its problems or inconsistencies, both argued for these conclusions in a world that needed them. In today's world, which is still as modern as post-modern and encourages all the worst aspects of reductionistic epistemologies—generalizations about race (i.e., scientific racism), sex, gender, nationality, religion—and in a post-COVID world, which seems bent on either complete uncritical obedience or disobedience to the scientific establishment, the relevance of Christian anti-reductionist thought remains is as great as ever.

Endnotes

1. Or as Neil Degrasse Tyson recently put it, “After the laws of physics, everything else is opinion.”
2. I chose “anti-reductionist” for the title because (a) “non-reductionist” appeared too weak for what is witnessed in the literature, and (b) Barfield and the Neocalvinists’ alternatives are not entirely free of reductionism, as much as they attempted to be.
3. This term generally refers to confessional European (especially Dutch) Calvinism tempered by Modernism. See Jamin Andreas Hübner, “The Diversity of Contemporary Reformed Theology: A New Encyclopedic Introduction With a Case Study,” *The Canadian American Theological Review* 8:2 (2019): 44-102, as well as Craig Bartholomew, *Contours of the Kuyperian Tradition: A Systematic Introduction* (Grand Rapids: Downers Grove: InterVarsity Academic, 2017); Albert Wolters, *Creation Regained: Biblical Basics for a Reformational Worldview* (Grand Rapids: Eerdmans, 2005); J. Richard Middleton and Brian Walsh, *The Transforming Vision: Shaping a Christian Worldview* (Downers Grove: IVP Academic, 1984).
4. Raphael van Riel and Robert Van Gulick, “Scientific Reduction,” *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition), Edward N. Zalta (ed.). Available at <https://plato.stanford.edu/archives/spr2019/entries/scientific-reduction/>.
5. Philip Clayton, “Conceptual Foundations of Emergence Theory,” in *The Re-Emergence of Emergence*, ed. Philip Clayton and Paul Davies (New York: Oxford University Press, 2006), 3.
6. Ibid.
7. John Searle, “Reductionism and the Irreducibility of Consciousness,” in Mark Bedau and Paul Humphreys, eds. *Emergence: Contemporary Readings in Philosophy and Science* (Cambridge: MIT Press, 2008), 69.
8. Ibid., 70: “objects of certain types can be shown to consist in nothing but objects of other types. For example, chairs are shown to be nothing but collections of molecules.”
9. Ibid., 71: “a form of ontological reduction, but it concerns properties. For example, heat (of a gas) is nothing but the mean kinetic energy of molecule movements.”
10. Ibid.: “theoretical reduction is primarily a relation between theories, where the laws of the reduced theory can (more or less) be deduced from the laws of the reducing theory. This demonstrates that the reduced theory is nothing but a special case of the reducing theory.”
11. Ibid.: “[E.g.] Since...words and sentences are *logically* and *definitionally* reducible, the corresponding entities referred to by the words and sentences are *ontologically* reducible. For example, numbers are nothing but sets of sets.”
12. Ibid.: “a relation between any two types of things that can have causal powers, where the existence and a fortiori causal powers of the reduced entity are shown to be entirely explainable in terms of the causal powers of the reducing phenomena. Thus, for example, some objects are solid and this has causal consequences: solid objects are impenetrable by other objects, they are resistant to pressure, etc. But these causal powers can be causally explained by the causal powers of vibratory movements of molecules in lattice structures.”
13. Michael Tooley, “Causation: Reductionism Versus Realism,” in *Metaphysics: An Anthology*, ed. Jaegwon Kim, Daniel Orman, and Ernest Sosa, 2nd ed. (New York: Wiley-Blackwell, 2005), 419.
14. Riel and Gulick, “Scientific Reductionism.”
15. Searle, “Reductionism,” 71.
16. Tooley, “Causation: Reductionism Versus Realism,” p. 419.
17. Jürgen Moltmann, *The Living God and the Fullness of Life* (Louisville: Westminster John Knox, 2015), 185.

18. For a impassioned summary of this sobering reality, see David Bentley Hart, *Atheist Delusions* (New Haven: Yale University Press, 2009), 105, 232.
19. James Bratt, ed., *Abraham Kuyper: A Centennial Reader* (Grand Rapids: Eerdmans, 1998), 20.
20. Lew Daly, *God's Economy: Faith-Based Initiatives and the Caring State* (Chicago: U of Chicago Press, 2009), 158.
21. Kuyper cited in Bratt, 157-8.
22. Kuyper, cited in Bratt, 157. Cf. "Sphere Sovereignty" (1880), in *Abraham Kuyper*.
23. Kuyper, "Sphere Sovereignty," 467.
24. Hence the futility of mainstream evidentialist apologetics. Abraham Kuyper, *Lectures on Calvinism* (Grand Rapids: Eerdmans, 2009, orig. 1931), 11: "apologetics have advanced us not one single step. Apologists have invariably begun by abandoning the assailed breastwork, in order to entrench themselves cowardly in a ravelin behind it. From the first, therefore, I have always said to myself, 'If the battle is to be fought with honor and with a hope of victory, then principle must be arrayed against principle'."
25. Many contemporary theologians have signaled the potentially harmful effects of perpetuating theological models and language pulled directly from exploitative, monopolistic, and power-determined relationships. In particular, see Sallie McFague, *Models of God* (Minneapolis: Fortress Pres, 1987), but also William Placher, *The Domestication of Transcendence* (Louisville: Westminster John Knox, 2006); Gordon Kaufman, *In Face of Mystery* (Cambridge: Harvard University Press, 1994); and Jamin Andreas Hübner, review of Matthew Bates, *Salvation By Allegiance Alone* (Grand Rapids: Baker Academic, 2016) in *The Canadian American Theological Review* 6:1 (2017):121-127.
26. Hübner, "The Diversity of Reformed Thought."
27. See Abraham Kuyper, *The Principles of Sacred Theology* (Grand Rapids: Eerdmans, 1954), 413-439, in conjunction with *Westminster Confession of Faith* 1.5.
28. Note also the reductive function in the use of "alone" in the "five *solas* of the reformation." It should be noted, however, that Clouser is much less rigid in this theology and has separated himself from many conservative branches of reformed thought in his publications.
29. On the campus of Kuyperian institutions, like Redeemer University College, Trinity Christian College, Kuyper College, and Dordt University (explicitly based on a "Kuyperian" framework), there is no little internal discussion about what it means to concretely reclaim "every square inch" of God's creation, especially as some entire departments (e.g., biology) are difficult to square with Kuyper's own views (see note on evolution below).
30. Kuyper, cited in *God's Economy*, 158.
31. Abraham Kuyper, *De Eerepositie der Vrouw* ("The Woman's Position of Honor"), trans. Irene Konyndyk (Kampen: Kok, 1932), 19-28: "The private and public life form two separate spheres, each with their own way of existing, with their own task. ... And it is on the basis of this state of affairs, which has not been invented by us, but which God himself has imposed on us, that in public life the woman does not stand equally with the man. Nor more that it can be said of the man that he has been called to achieve in the family that which is achieved by the woman ...; for which the man is the appointed worker [the public domain], she will never be able to fulfill anything but a subordinate role, in which her inferiority would soon come to light anyway."
32. Kuyper, "Uniformity," 29: "In our country, prophetesses have arisen who insist—as though they were part of an antislavery league—on the emancipation of women and demand that they too be entitled to wear a liberty cap on their heads. In modern America a woman has recently taken a professor's chair at one of the colleges In Germany and Belgium women's skirts swirl around office stools The modesty and diffidence that formerly adorned our young maidens no longer fit the robust woman of our age."
33. Jeff Liou and David Robinson, "Our Racist Inheritance: A Conversation Kuyperians Need to Have," *Cardus* (May 14, 2015): "How could we sustain Kuyper's concerns about the Japanese whom he saw as a rising 'yellow' threat, while at the same time affirming Kuyper's love for the diversity of birds and flowers in creation?" Cf. Daniel Camacho, "Common Grace and Race," *Reformed Journal* (January 10, 2015). "That Abraham Kuyper was a racist, following the conventions of his time, is something that no neo-

- Calvinist would deny. His views on race and his theological impact—to some degree—on the rise of apartheid in South Africa have been well documented. For Kuyper, this is no mere blind spot: the problem of race in his thinking is situated within some of his most important theological formulations.”
34. Kuyper, “Uniformity,” 25.
 35. Kuyper’s rectorial address “Evolution” (1899) argued the “The Christian religion and the theory of evolution are two mutually exclusive systems” (*Abraham Kuyper*, 412), largely because Darwin’s theory promoted the stronger to “crush the weaker,” which comprised the reductionistic weeding-out of diversity over time.
 36. *Ibid.*, 41: “The uniformity of Caesarism is our external enemy, the uniformity of Cosmopolitanism our internal enemy; these two in a fateful alliance now jointly threaten our national existence.”
 37. *Ibid.*, 32.
 38. Roger Henderson, *Illuminating Law* (Sioux Center: Dordt College Press, 1994), 25.
 39. *Ibid.*, 28.
 40. *Ibid.*, 40, 130.
 41. Both “were forms of rationalism, caught in an irresolvable dilemma between (disembodied) thinking subjects and spatially extended objects.” *Ibid.*, 180.
 42. C. T. McIntire, “Herman Dooyeweerd in America,” in *Reformed Theology in America*, ed. David F. Wells (Grand Rapids: Baker House, 1977), 162
 43. See “Aspects of Reality as We Experience It,” Dooyeweerd Pages (available at www.dooy.info/aspects.html).
 44. *Ibid.*, 142.
 45. Dooyeweerd cited in *ibid.*, 143.
 46. See Ian Barbour, *When Science Meets Religion* (New York: HarperOne, 2000).
 47. Dooyeweerd, cited in Henderson, *Illuminating Law*, 150 (from 1924). He cites Marx’s reduction to economics and Darwin’s reduction to natural selection as examples of this temptation. Cf. Clouser, *The Myth*, 71.
 48. This was directly related to the title of Dooyeweerd’s major work, *A New Critique of Theoretical Thought* (Presbyterian and Reformed, 1969).
 49. Roy Clouser, *The Myth of Religious Neutrality: An Essay on the Hidden Roles of Religious Belief in Theories*, revised ed. (Notre Dame: University of Notre Dame Press, 2005), 65.
 50. *Ibid.*
 51. *Ibid.*, 67.
 52. *Ibid.*
 53. *Ibid.*, 69.
 54. Henderson, *Illuminating Law*, 201: “To [Dooyeweerd], theory of knowledge, as a part of a theory of spheres of law, not only shows traditional ontology is unnecessary, it also shows that it presupposes an erroneous dichotomy between subjective human knowledge and objective non-human reality, defying all attempts at reconciliation. Ontology in its worst form of metaphysics presupposes a lawful functioning of thought where there is no subject matter.” 201
 55. Andrew Basden, “Dooyeweerd and Christian Thought,” *The Dooyeweerd Pages*. Available at <http://dooy.info/dooy.xn.html>
 56. Clouser, *The Myth*, 74.
 57. Barfield, *World’s Apart*, 9.
 58. *Ibid.*, 21. Cf. Owen Barfield, *The Rediscovery of Meaning* (Middletown: Wesleyan, 2013, orig. 1977), 14-15: “For if physical objects and physical causes and effects are all that we can know, it follows that man himself can be known to the extent that he is a physical object among physical objects. Thus, it is implicit in positivism that man can never really know anything about his specifically human self—his own inner being—any more than he can ever really know anything about the meaning of the world of nature by which he is surrounded.”
 59. *Ibid.*, 22.
 60. Or, *ibid.*, 278-71, “Science must be true, because it works,” but then this inevitably creates the problem of who and how what “works” is determined.
 61. *Ibid.*, 26-27.
 62. *Ibid.*, 38-39.
 63. See the first two chapters of Clouser, *The Myth of Religious Neutrality*.
 64. His emergentist tendency is clearer in *Rediscovery*

- of *Meaning*, 333: “You cannot *have* an enduring society *at all*, unless you provide for the free spiritual expansion of the individual. So far from individualism leading to social anarchy, the solidarity of your society will vary directly with the extent to which the individuals composing it become and remain individuals. If you are aiming at collective unity, you must also be aiming at individual liberty!” That is, the states of the “higher level” phenomena depend on the states of the “lower level” phenomena, and yet can and must be distinguished.
65. *Ibid.*, 94.
 66. *Ibid.* 97. One can’t help but be reminded of Wendell Berry’s similar criticism of E. O. Wilson for failing to realize that “machine” is a metaphor when applied to humans. See Wendell Berry, *Life is a Miracle: An Essay Against Modern Superstition* (Washington D.C.: Counterpoint, 2000).
 67. This is most clearly seen in the natural sciences. Barfield, *The Rediscovery of Meaning*, 196: “Bohm has been developing an interesting critique of the coexistence, among modern physicists, of what he terms ‘formal language forms’ on the one hand and ‘informal language forms’ on the other. Formal language forms comprise mathematical formulae; informal language forms comprise the language of ordinary discourse—which however is always required for the general description of any subject of scientific inquiry. Total diremption of the informal to the formal language would reduce physics to mathematics.”
 68. Barfield, *Poetic Diction*, 16.
 69. See Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 2016, orig. 1967); Richard Rorty, *Contingency, Irony, and Solidarity* (Cambridge: Cambridge University Press, 1989), 185.
 70. Barfield frequently critiques stereotypical “modern” and “postmodern” ideas at the same time.
 71. *Ibid.*, 15-17.
 72. *Ibid.*, 22.
 73. Or to quote from the same aforementioned paragraph of Moltmann, *The Living God*, 185: “But has one thereby perceived the truth of nature, or merely overpowered it because it was weaker?”
 74. Barfield, *Poetic Diction*, 23.
 75. Barfield, *Poetic Diction*, 31: “Logic can make us more precisely aware of the meaning already implicit in words. But the meaning must first of all be there and, if it is there, it will always be found to have been deposited or imparted by the poetic activity . . .; the poetic . . . does not handle terms; it makes them.”
 76. Barfield, *Poetic Diction*, 28.
 77. *Ibid.*, 28.
 78. Cf. the “organic model of scripture” in Neocalvinism successor, Herman Bavinck, *Reformed Dogmatics*, ed. John Bolt, trans. John Vriend (Grand Rapids: Baker, 2008), 1:388-89:
 79. Barfield, *The Rediscovery of Meaning*, 27.
 80. *Ibid.*, 193.
 81. It is also more famously known in systematic theology as “incarnational inspiration”; the Bible is divine and human just as Christ is divine and human, and to reduce one aspect to another is erroneous. Of course, the same is said about all human beings, who are at least (if not more than) “psychosomatic,” again, not solely “biological” or “physical,” according to both Neocalvinists and Barfield. See Bavinck, *Dogmatics*, vol 2., and Barfield, *Rediscovery of Meaning*, 228-38.
 82. *Ibid.*, 311, cf. 319.
 83. *Ibid.*, 320: “To say that ‘matter’ is a very abstract word is not the same as proclaiming that matter does not exist, or anything of that sort. It is abstract in the way that a word like ‘insect’ or ‘bird’ is abstract. We never perceive a bird with our senses; what we do perceive is some particular starling or thrush. ‘Bird’ means a number of elements or qualities which all starlings and thrushes and other species have in common (the habit of flying through the air is one of them). Consequently it is something we cannot perceive, but can only *think*. If this is what is meant by an ‘abstraction,’ one will see at once how much more abstract is ‘matter.’”
 84. Barfield, *The Rediscovery of Meaning*, 197. Barfield again anticipates the French intellectuals—and shortly thereafter (cf. p. 198) brings the referent problem to bear on natural science: “If the linguistic theorist sometimes feels forced to conclude that his language has nothing to refer to outside of itself—and if that raises a difficulty, because, as I have sought to emphasize, it is the very nature of language to refer—cor-

respondingly, when the physicist feels forced to conclude that there is no absolute distinction between observer and observed, and thus nothing to be observed, and thus nothing to be observed outside of his immeasurable self, then his science has nothing to *measure*. And *that* raises a difficulty, because it is the very nature of science (at least as we have it up to now) to measure. This difficulty is now recognized, and is sometimes referred to as ‘the measurement problem.’”

85. Barfield, *The Rediscovery of Meaning*, 215.
86. *Ibid.*, 213, emphasis mine. Cf. 240: “In short, all the facts point to the truth that reality resides in an ultimate, irreducible polarity between subject and object, such as would naturally lead us to say: ‘Because I, and other I’s exist, the familiar world around me exists.’ But what we mostly do say is: ‘The familiar world around me exists, and therefore I, too, seem to exist.’”
87. Gordon Kaufman, *In Face of Mystery: A Constructive Theology* (Cambridge: Harvard University Press, 1993), 1-189.
88. *Ibid.*, 383.
89. Of course, it isn’t fair to construe Barfield as necessarily being more “forward-looking” than Kuyper on issues of traditionalism and culture custom. While even on the specific subject of gender, Barfield doesn’t emphasize gender roles; he does reject the “sex vs. gender” distinction and mocks those who might suggest that “oral eroticism [could] turn into something like romance” (*The Rediscovery of Meaning*, 294).
90. There are, of course, endless differences in theological ideas between the two that need not be explored. But the perhaps the most significant one deserves mention, which is that the Neocalvinists (Kuyper and Bavinck, though not Clouser) fervently reject evolution as being threatening to the faith, while Barfield fully integrates evolution into his thought, saying (*ibid.*, 247), “It has been pretty well proven that modern man must believe of anything that exists, that it has come gradually into being, that it has ‘evolved.’ By and large, he can no longer accept a hypothesis of instantaneous creation.”
91. Andrew Torrance and Thomas McCall, eds., *Christ and the Created Order: Perspectives from Theology, Philosophy, and Science* (Grand Rapids: Zondervan, 2018).
92. *Ibid.*, 27-28.