

The Idea of a World Order

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Abstract

Dooyeweerd was struck by the fact that different systems of philosophy expressly oriented their philosophic thought to the idea of a divine world order. The dialectic of form and matter permeated both Greek and medieval philosophy. The distinction between natural laws and laws of nature is highlighted with reference to Descartes and Beeckman. A key distinction for an understanding of the order of the world is given in the difference between modal laws and type laws. In order to substantiate this claim, an explication of the nature of the order for the world has to explore elements derived from the four most basic modes of explanation: number (the one and the many), space (universality), the kinematic (constancy), and the physical aspect (change). These points of entry serve theoretical thought with terms that may either be employed in a conceptual way or in a concept-transcending way. The influence of nominalism on the thought of Dooyeweerd is analyzed in some more detail.

Keywords

world order – Herman Dooyeweerd – natural law – positive law – universality – constancy – change – lawfulness

1 Introduction

Dooyeweerd was struck by the fact that different systems of philosophy expressly oriented their philosophic thought to the idea of a divine world order. Initially, the dialectic of form and matter permeated both Greek and medieval philosophy. The subsequent distinction between natural laws and laws of nature is highlighted with reference to Descartes and Beeckman. A key distinction for an understanding of the order of the world is given in an explanation

of the difference between modal laws and type laws. Modal laws hold for all classes of entities, while type laws hold for a limited class of entities only. In order to substantiate this claim, the nature of the order for the world has to explore elements derived from four basic modes of explanation—namely, number (the point of orientation of atomism, distorting the meaning of what is *individual*); space (*universality* and *continuity*); the kinematic aspect (*constancy*); and the physical aspect (*change*). These points of entry serve theoretical thought with terms that may either be employed in a conceptual way or in a concept-transcending way. Conceptual knowledge emerges when a multiplicity of logically objectified universal traits is united in such a concept. But precisely for this reason concepts are blind to what is individual. What is individual and unique can only be approximated in concept-transcending knowledge (idea-knowledge). At this point, the influence of nominalism on the thought of Dooyeweerd is analyzed in some more detail.

What permeates the entire article is a concern to come to terms with the idea of a world order, to enhance an understanding of the correlation between the *law for* reality and the *lawfulness of* (law-conformity of) reality. This is closely related to an investigation of the relationship between universality and what is individual, which in turn requires an understanding of the relationship between constancy and change.

The general conclusion of this article is that the idea of a world order ought to be articulated in terms of a number of basic distinctions, namely, that regarding the correlation between the law-side and factual side of reality, the acknowledgment of the universal side and individual side of factual reality, and the coherence between unspecified universal modal laws and specified universal type laws. To our mind, this should be an integral part of the transcendental ground-idea if its aim is to account for the importance of understanding the world order.

This article will investigate what the key elements of a transcendental ground-idea are that may help us to articulate the idea of a world order. We commence by looking at Dooyeweerd's idea of a transcendental ground-idea.

2 The Transcendental Ground-Idea as Basic Idea of Philosophy

The journal *Philosophia Reformata* was established concurrent with the appearance (in 1936) of Dooyeweerd's three-volume work *De wijsbegeerte der wetsidee* (1935–1936). In the original foreword to the first volume, Dooyeweerd explains that from the start he has “introduced the Dutch term *wetsidee* (*idea legis*) for the transcendental ground-Idea or basic Idea of philosophy.” According to him,

the best equivalent in English for the Dutch term *wetsidee* is the expression “cosmonomic Idea,” because when “the word ‘law’ [is] used without further specification [it] would evoke a special juridical sense which, of course, cannot be meant” (Dooyeweerd 2016, 1:93). He continues (*ibid.*, 93–94):

This term was formed by me, when I was particularly struck by the fact that different systems of ancient, medieval and modern philosophy (like that of LEIBNIZ) *expressly* oriented philosophic thought to the Idea of a divine world order,¹ which was qualified as *lex naturalis*, *lex aeterna*, *harmonia praestabilita*, etc.

According to his mature conception, he holds that the transcendental ground-idea is actually a triunity of transcendental ideas. The “transcendental theoretical Idea is directed to the *coherence*, the *totality* and the *Origin* of all meaning, respectively” (*ibid.*, 69). For Dooyeweerd this ground-idea articulates what he accounts for in his theory of modal aspects and individuality structures—as an expression of a particular *worldview*.

3 Worldviews Entail an Idea of the World Order

Dooyeweerd’s just-quoted remark (2016, 1:93–94) implicitly refers to the underlying worldviews which also harbor the idea of a world order, oftentimes explicitly articulated in diverse philosophical trends of thought. Operating on the basis of an implicit or explicit idea of a world order is particularly prominent in the transcendental ground-ideas operative in the history of the Western intellectual legacy, including Greek and medieval philosophy, and modern humanistic philosophy. These traditions often harbor the dialectic of opposing views threatening and presupposing each other. Let us look first of all at Greek and medieval philosophy.

4 The Dialectical Greek-Medieval Legacy²

In early Greek philosophy, the idea of a world order emerged alongside the search for an origin or original principle. Even when a world order is not

1 The expression *world-order* appears throughout the first volume of *A New Critique of Theoretical Thought* (53 times).

2 Bos is critical of Dooyeweerd’s account of the *genesis* of the motive of form and matter (he prefers to speak of the titanic meaning-perspective). Yet he nonetheless believes that

explicitly acknowledged, it still exerts its implicit influence. Initially, Greek philosophy considered *dikē* as a punishing justice—governing nature on the whole. In his first B fragment, Anaximander holds the view that whatever takes on a *limited form* is condemned to return to its formless origin (Anaximander, B frag. 1 Diels-Kranz). Therefore, assuming a definite form was seen as a violation of the formlessness of the *Archē*—and only losing this form could rectify the injustice done. On the one hand this reveals an underlying tension between the two opposing principles of origin, namely, *matter* and *form*. But on the other it raises the question whether law and justice have their foundation in an encompassing eternal order. Heraclitus accepts a rational world order, which is the same for all beings and not made by one of the gods nor by humans, for he holds that this world order was always there and will always be there (Heraclitus, B frag. 30 Diels-Kranz).

A later disciple of Heraclitus expressed the dialectical views of Heraclitus as follows: “For all things are alike in that they differ, all harmonize with one another in that they conflict with one another, all converse in that they do not converse, all are rational in being irrational; individual things are by nature contrary, because they mutually agree. For rational world order [*nomos*] and nature [*physis*], by means of which we accomplish all things, do not agree in that they agree” (in the writing erroneously ascribed to Hippocrates, *Περὶ διαίτης*, 1, xi, 6—see Dooyeweerd [2012, 45n2]). On the next page Dooyeweerd notes that “the *physis* which flows eternally through all opposed forms, is dialectically one with the *logos*, as world law”—to which he adds the remark: “This Heraclitean dialectical identification of *logos* (as *nomos*) and *physis* was later adopted in the Stoa, and by this route it also influenced the *logos* speculation of Christian thinkers into the fourth century.” However, Protagoras did not accept the dialectical identification of *physis* and *logos* in the thought of Heraclitus. Protagoras conceives law exclusively as positive ordinances enacted by humans. On the one hand, Heraclitus and Protagoras accept the changing nature of factual reality,³ but Protagoras, on the other, holds that within the *polis* (the Greek city-state) human nature acquires a limited form and measure. Both Plato and Aristotle held the view that the *polis* as encompassing whole can bring the human being to the highest good, to wit, moral perfection.

Dooyeweerd’s extensive analysis of the development of this motive in Dooyeweerd (1949, 35–436; see Dooyeweerd 2012) contains a valid perspective on the dialectic of Greek thought (see Bos 1994, 220).

3 Heraclitus holds that one cannot step into the same river twice (Heraclitus, B frag. 91 Diels-Kranz), and Protagoras emphasizes the changeful nature of humans, for according to him and the Sophists, legal customs are fully arbitrary and exclusively serving the own interest of people.

Underlying this view was the dialectical opposition of *matter* and *form* as two original and mutually exclusive principles of origin (see Pötscher [1970, 51] and Happ [1971, 562 and 696–697]).⁴

The idea of a world order includes the distinction between constant norming principles and variable (changing) societal practices. How does this distinction contribute to our understanding of a world order?

5 The Distinction between Natural Law and Positive Law

The ongoing struggle between a constant world order and varying social practices included a defense of the idea of *natural law*. But we have to keep in mind that the Greek-medieval legacy took “natural law” to be *moral* in nature, i.e., to be norming human actions. What is known in Dutch as *natuurwetten* later on became known as “laws of nature.”

Aristotle was the first to introduce a distinction between *natural law* and *positive law*. According to him, the broad (moral) sense of justice (*dikaion politikon*) embraces virtues such as courage, moderateness, friendliness, and so on. These virtues manifest themselves within the state order. In its restricted sense, justice is focused on legal norms and their obedience. But these views are enriched by his understanding of the deepened meaning of law, first of all related to his view of distributive justice which entails that equals ought to be treated equally and unequals unequally.

A similar deepening of the (normative) meaning of law is found in Aristotle's understanding of *equity*. He explains that the “equitable is just,” but it is not what is “legally just” (Aristotle, *Nicomachean Ethics* 5.10; see Aristotle [2001, 1020]). Aristotle here continues by explaining that what is equitably just is not “legally just but a correction of legal justice.” According to him, the “reason is that all law is universal but about some things it is not possible to make a universal statement which shall be correct.” It belongs therefore to the “nature of the equitable” that it is “a correction of law where it is defective owing to its universality.” Implicit in this account is an awareness of the difference between universality and what is unique and individual. Applying the law to a unique situation (not foreseen by the universal intent of a law and causing what is incorrect) may require setting the applicable law in this unique case aside on behalf of equity (*ex quietate*). The (norming) law itself continues to hold its

4 In passing we may note that Alasdair MacIntyre does have an eye for the totalitarian nature of the *polis* (see MacIntyre 1988, 122, 126). However, he does not contemplate the dimension of sphere-sovereign individuality structures as an alternative.

universal force, for setting the law *itself* aside—and not merely its application in this particular unforeseen case—would eliminate the given law order. In other words, although equity is just, it is not the justice of the law.⁵

The way in which Aristotle accounts for equity unveils the fact that a legal order inherently contains a dynamic tendency. Does this mean that nothing is constant within a legal order?

6 The Idea of Constancy and Change behind the Distinction between Natural Law and Positive Law

It should not be surprising that understanding the order of society also involved wrestling with the problem of *constancy* and *change*. Eventually, during the early Middle Ages, this problem surfaced in the reflections of the Stoa. The founder of the Stoa, Zeno from Cyprus (336–264 BC), radicalized the idea of (a moral) natural law. The Heraclitean dialectical identification of *logos* (as *nomos*) and *physis* was later on accepted in the Stoa, and it influenced the *logos* speculation of early Christian thinkers.

The Stoa wanted to unify the dialectically opposed poles of Greek thought, namely, matter and form. According to their approach, everything supposedly participates in the divine Reason, or *Nous*. This takes place through the operation of the so-called *logoi spermatikoi* (germlike rational particles). In this the Stoic theory of knowledge predates the empiricist philosophers of the seventeenth century in England who assumed that at birth the human spirit was a blank slate (a *tabula rasa*). In addition, the Stoics anticipated the views of Descartes, for they held that knowledge obtained through the senses does not guarantee truth because the latter depends upon inborn concepts—compare also Kant's account of the categories of human understanding. The Stoa saw in *nomos* a universal natural (moral) law.

Cicero believed that the alleged fluid and changeful nature of law is unacceptable. Instead, he continued ideas of Plato and Aristotle regarding fixed legal principles embedded in an ethical world order. This order acquired various names, among which the most common notion was that of *natural law* (*lex naturalis*), alongside other expressions, such as *lex naturae*, *lex naturalis*, *ius naturae* and *ius naturale*, *vera lex* (true law), *summa lex* (supreme law), *lex divina et humana* (divine and human law), and so on (see Van Zyl 1991,

5 In his discussion of Trude's work on the concept of justice in the thought of Aristotle, Dooyeweerd summarizes Aristotle's view as follows: "Equity has to correct the shortcomings in general legal stipulations" (Dooyeweerd 2017, 225).

297–298). Cicero is searching for an immutable, incorruptible, and non-arbitrary universal law which is valid per se. Jones therefore highlights the fact that in addition to an objective universal order Cicero also has “those half-legal, half-ethical rules” in mind which express the principles of human justice, because they have a bearing upon the relations of men living in society and upon their duties to one another and to the gods (Jones 1956, 99).

Hommes notes that according to Cicero there exists within the *lex naturalis* a *ius naturae* which is differentiated in a *ius divinum (religio)* and a *ius humanum*. The former concerns the dependence of humans on God and the latter aims at human communal life (*aequitas*). According to Cicero, *aequitas* finds its foundation in the following principles: the avoidance of every violation of the rights of another person (*neminem laedere*), and the recognition and maintenance of private and communal life by giving to each person what legally belongs to that person (*suum quique tribuere*) (see Hommes 1981, 30).

It should be noted that the tradition of natural law entails the idea of precepts that are legal (jural) and moral in nature. Physical laws are therefore not *natural laws* but *laws of nature*.

It is clear that within the legacy discussed here, constant principles played an important role amidst a (societal) world of change. Let us now move on to the modern era and investigate how modernity viewed the idea of a world order.

7 The Laws of Nature: René Descartes and Isaac Beeckman

While Descartes considered extension to be the essential property of material bodies, Wootton holds that “Beeckman was far ahead of Descartes in his thinking,” for Beeckman “had already decided that the universe consisted of corpuscles in motion.” This view of the world order anticipates the understanding of Hobbes who aimed at explaining everything in terms of the notion of a “moving body”—reflecting the mechanization of our worldview in assigning a central role to the kinematic mode of explanation. According to Beeckman, “laws” of motion hold both “at a microscopic level” and “at a macroscopic level” (Wootton 2016, 363).

Beeckman’s Calvinistic upbringing explains why his standard word for a law of nature is *pactum*, or *covenant*. This view positions the idea of a covenant in the center of an expanded understanding of the idea of a world order. The importance of the idea of laws of nature achieved momentum during the so-called Scientific Revolution owing to the introduction of different laws of nature, such as “Stevin’s law of hydrostatics, Galileo’s law of fall, Kepler’s laws

of planetary motion, Snell's law of refraction, Boyle's law of gases, Hooke's law of elasticity, Huygens' law of the pendulum, Torricelli's law of flow, Pascal's law of fluid dynamics, [and] Newton's laws of motion and law of gravity" (Wootton 2016, 367).⁶

Isaac Beeckman and Descartes were friends who considered themselves "physico-mathematicians." But "when Mersenne visited Beeckman and read his journal he discovered that, indeed, many of Descartes' ideas had first been formulated by Beeckman" (ibid., 364). However, Descartes was furious, "telling Beeckman he had learnt as much from him as he had learnt from ants and worms" (ibid.).

Jean Fernal (1497–1558), who was an astronomer and mathematician before he turned to medicine, articulates the idea of a world order by believing that "there are eternal, immutable laws which govern the universe." They were "ordained by God, and without them there would be no order in the universe," as explained by Wootton (2016, 370). On the same page, Wootton also remarks that "God could be conceived as an absolute legislator—thus, the Scientific Revolution owes everything to Christianity." Moreover, the term *law* implies an "unbroken regularity, with no exceptions, but nothing is conveyed about causation. These laws have a specifiable content" (ibid.). Wootton does not realize that there is an important difference between *law for* and *lawfulness of*. The former concerns the law-side of reality whereas the latter reflects the way in which whatever is subject to (God's) law evinces this subjectedness through its orderliness, law-conformity, or lawfulness.

From a historical point of view, the universality of laws and law-conformity within the world order raises the question regarding the status of universality.

8 The Status of Universality: Out There or within the Human Mind?

When Galileo argues against theological objections to Copernicanism he uses the expression "laws of nature" three times, but this phrase is absent "in his more properly scientific works" (Wootton 2016, 371). Assigning *universality* to a law was apparently first done by Descartes in his correspondence of 1630. However, the crucial question for an understanding of universality is, where is it located?

6 The contrast with the ancients is striking, for according to Wootton they "had known, by our reckoning, only four physical laws: the law of the lever, the optical law of reflection, the law of buoyancy and the parallelogram law of velocities" (Wootton 2016, 368).

Plato's conception of supra-sensory, eternal, and static ontic forms (*eidē*) was a speculative (metaphysical) response to the problem of constancy and change, influenced by the static metaphysics of being of Parmenides. Via Neoplatonism (the *hen polla* of Plotinus) and Augustine, the Platonic ideas (*eidē*) were transformed into the ideas in God's mind. In his *Metaphysics*, Aristotle reiterates his distinction between the "concrete thing" (a combination of matter and form) and the universal substantial form (the secondary substance or the "formula"—without matter; Aristotle, *Metaphysics* 1039b20ff.; see Aristotle [2001, 807]). The formula is neither subject to destruction nor to generation. The (general) being of house does not come into being or pass away: "The being of house is not generated, but only the being of *this* house" (Aristotle 2001, 807).

The Greek-medieval realistic metaphysics accepted universality within and outside the human mind, while the nominalist movement before the Renaissance rejected universality outside the human mind. The opposing stances of realism and nominalism influenced the views on order and truth—our next concern.

9 Order and Truth

The underlying issue here is the *ontic order* for the existence of existents and the *orderliness* of these existents, which are both, as noted above, implicitly related to the idea of a world order. Plato stumbled upon the former and Aristotle on the latter. This eventually informed the realistic metaphysics of the medieval period according to which universality ("universals") was supposed to be found in God's mind, in the things, and, subsequently, within the human mind (as universal concepts). This generated the realistic criterion of truth: the correspondence of thought and being (*adequatio intellectus et rei*—see von Hippel [1955, 305]). Since the nominalists—such as John the Scot and William of Occam—deny universality outside the human mind, the nominalist criterion of truth was restricted to the compatibility of concepts.

During the transition from the medieval era to the Renaissance and early modernity, the nominalistic movement rejected Plato's *eidē* as well as Aristotle's formula, namely, his universal substantial forms.⁷ The substance concept permeating the realistic Greek-medieval legacy gave birth to the distinction between *essence* and *appearance*, and to the label *essentialism*.

7 Interestingly, Descartes still continues the classical notion of a substance: "By substance we can conceive nothing else than a thing which exists in such a way as to stand in need of nothing beyond itself in order to its existence" (Descartes, *The Principles of Philosophy* 1.51; see Descartes [1965, 184]).

Dooyeweerd responded to the clash between realism and nominalism with his theory of modal aspects and individuality structures as an alternative articulation of the idea of a world order. Clearly, in order to understand this issue properly, the contrast between realism and nominalism is important. As noted above, nominalism denies every (universal) *order for* and *orderliness of* entities—including modal laws and entitary laws. Outside the human mind universality is rejected—the only position open to it was *within* the human mind. This is the position which Descartes assumed in respect of universality. In a typical nominalistic fashion he claims that whatever is universal is merely a mode of thought: “Number and all universals are mere modes of thought” (Descartes, *The Principles of Philosophy* 1,58; see Descartes [1965, 187]).

Is this our only option, or could we acknowledge what is individual alongside ontic universality?

10 What Is Universal and What Is Individual

Within Reformational philosophy, a consistent account of what is universal and what is individual still appears to be blurred by the mixed legacy of realism and nominalism, particularly when the relation between the aspects of reality and the diverse existents are at stake. Dooyeweerd distinguishes between the central direction-giving religious dimension (subject to the central commandment of love), the dimension of cosmic time, the dimension of modal aspects, and the dimension of individuality structures. These four dimensions constitute his philosophical view of the world order. But when it comes to the question of how these dimensions relate to each other, serious problems arise, particularly regarding the last two. In an early stage of his development, Dooyeweerd often speaks of an *individual structure*—for example, when he refers to “the meaning-individual structure of the state” (Dooyeweerd 2010, 55) or makes a general statement like the following: “The thing-structure is the meaning-individual structure of cosmic reality” (ibid., 92). In a similar fashion he speaks of “the thing-structure as meaning-individual structure of temporal reality” (ibid., 97).

His ripened conception is captured in the expression *individuality structure*. Although this expression is an improvement of *individual structure*, it does not solve the underlying problem which flows from the fact that Dooyeweerd strips factual reality from universality. Factual reality is supposed to be purely individual: he frequently speaks of the *individual factual side of reality*. In other words, on the factual side there is nothing universal; there is no universality.

For this reason, Dooyeweerd holds that the order for factual individuals comes to expression in the phrase *individuality structure*, which belongs to the

law-side of reality. This entails that the term *structure* is understood in the sense of *structure for* and not in the sense of *structure of*. Yet Dooyeweerd does not make this distinction. According to him, law and lawfulness are the same. He does not deny law-conformity (*wetmatigheid*), since he also frequently speaks of the orderliness of reality, its lawfulness, or law-conformity. But what he does not realize is that law-conformity is not a feature on the law-side of reality. Only what is subjected to law could be “lawful,” could *conform* to law. The *being individual* of an individual reflects its individuality—which is therefore a universal trait of every individual—and it belongs to the factual side of reality. Individuality therefore forms part of the universal side of factual reality; it is incorporated in its law-conformity. But in Dooyeweerd’s choice of terms it is elevated to the law-side of reality—as part of the law for whatever is factually subjected to it. If individuality belongs to the law-side of reality, then one cannot interpret an individuality structure as a law for individuality, in the full sense of the word.

An alternative approach, avoiding these problems and ambiguities, should therefore acknowledge that a law should be seen as the law *for* an entity and that its correlate is given in the factual-individual and factual-universal sides of such an entity. In other words, on the factual side of reality, universality and what is individual should be acknowledged. But what is still required is to contemplate how the features of universality and individuality are related to the order of the world. We proceed by distinguishing between two different (but intimately connected) kinds of laws.

11 Two Kinds of Laws

Both Dooyeweerd and Vollenhoven accept the idea of modal aspects which embrace whatever functions within them, be it as subject or as object. The universality entailed in this view is also known as the modal universality of the various aspects of reality. Roy Clouser equates the phrase *modal universality* with the “principle of aspectual universality” (Clouser 2005, 254). Von Weizsäcker highlights the same state of affairs from the perspective of physics. He remarks that Greek antiquity lacked an understanding of the law of inertia and also lacked the abstract concept of a law of nature (von Weizsäcker 2002, 117). The law of energy conservation, for example, similar to all universal laws of nature, encompasses *all* phenomena in a certain way (ibid., 229).⁸

8 Elsewhere he uses quantum theory as an example: “Quantum theory, formulated sufficiently abstract, is a universal theory for all *Gegenstandsklassen* (classes of objects)” (von Weizsäcker 1993, 128).

The important insight is that modal laws hold for all possible kinds of entities without an exception. In spite of sharing a diversity of modal subject functions and modal object functions, concretely existing entities could be classified in certain typical groups of existents. In the development of the special sciences (natural sciences and humanities) it appears that the various functional aspects may also serve as *modes of explanation*. Two key issues are prominent in this regard: on the one hand one finds the persistence of recurrent themes particularly emphasized by Holton in his *Thematic Origins of Scientific Thought* (1974), and on the other Kuhn's concern for scientific revolutions (see Kuhn 1970, 1974, 1977).

Persistent themes focus on the perennial philosophical problem of constancy and change, whereas scientific revolutions implicitly point at the problem regarding the relationship between universality and what is individual—which is closely related to the opposition of atomism (discreteness) and what is continuous (exploring number and space as modes of explanation). Holton juxtaposes the “couple of atomism and the continuum” (Holton 1974, 13, 25). Stegmüller distinguishes two basic conceptions in respect of the nature of material things, namely, the atomistic and continuity conception.⁹

That there are different kinds or types of existents does not leave universality untouched. Whenever we encounter a particular class or group of entities belonging to a distinct type, a *specified* form of universality is at stake. The implication is that types are only applicable to a limited class of entities. To be more explicit: type laws hold for a limited class of entities only.¹⁰

Michael Denton considers it to be one of the major achievements of pre-Darwinian biology that it discovered how the “living world is organized into a hierarchy of ever more classes or Types, each clearly defined by a unique homolog or suite of homologs possessed by all the members of the Type and in many cases have remained invariant in divergent phylogenetic lines for tens or hundreds of millions of years” (Denton 2016, 43). He continues by pointing out that “virtually all pre-Darwinian biologists, and many after Darwin, saw the

9 “Selbst die beiden großen Grundkonzepte über die Natur der Materie stehen heute nach wie vor zur Diskussion, wenn auch mannigfaltig verschleiert hinter Bergen von Formeln. Diese beiden Grundkonzepte kann man als die atomistische Auffassung und als die Kontinuumsauffassung der Materie bezeichnen” (Stegmüller 1987, 91).

10 In this article we merely direct our attention at type laws as part of the world order, leaving aside the origination of existents belonging to a certain type. Therefore, we shall not analyze the problems present in the theory of emergent evolution. However, for imminent criticism of the idea of emergent evolution, see Strauss (2009, 479ff.).

Types as immanent and invariant parts of the *world order*, no less than crystals or atoms” (ibid.; my italics).

In a different context the neo-Darwinist Coyne also refers to discrete clusters of living entities known as species: “And at first sight, their existence looks like a problem for evolutionary theory. Evolution is, after all, a continuous process, so how can it produce groups of animals and plants that are discrete and discontinuous, separated from others by gaps in appearance and behavior?” (Coyne 2009, 184). Coyne designates a discrete cluster of sexually reproducing organisms as a species and continues on the same page by saying that the discontinuities of nature are “not arbitrary, but an objective fact.”

Furthermore, Denton observes that the “discontinuous-typological conception of nature” is not derived from “all sorts of discredited metaphysical beliefs.” He holds that this view has been severely criticized by recent researchers who showed that it is “a myth created by twentieth-century advocates of the neo-Darwinian evolutionary synthesis” (Denton 2016, 43). Denton mentions that Amundson has shown that “whatever their metaphysical leaning, pre-Darwinian biologists did not derive their view of Types as changeless components of the world order from any *a priori* metaphysics (idealistic morphology, transcendental anatomy, essentialism, Platonism, etc.) but from solid empirical observations” (ibid.).

The distinction between a *structuralist* and a *functionalist* approach is coextensive with the distinction between type laws and modal laws. Stephen Gould without hesitation employs the structuralist term *Bauplan* (structural design) (Gould 2002, 154, 582, 1156, 1198, and 1202)—which explains why he is so critical of the functionalistic gradualism present in the neo-Darwinian understanding of evolution: “These stories begin from the same foundational fallacy and then proceed in an identically erroneous way. They start with the most dangerous of mental traps: a hidden assumption, depicted as self-evident, if recognized at all—namely, a basic definition of evolution as continuous flux” (ibid., 913).

In his 2016 book Denton explains that when he wrote his 1986 book he was still a “convinced pan-adaptationist and held to a strictly functionalist view of biological systems.” But since then he “adopted a much more structuralist conception of organic order and particularly of the Types” (Denton 2016, 12). He presents his 2016 book as “a defense of the typological world-view similar to that subscribed to by many nineteenth-century biologists” (ibid., 28). His notion of “Types” is that they are “taxa defining ‘primal patterns’” while the “Types they define” are “real existents, part of the lawful and changeless order of the world” (29). His general characterization reads: “Nature is in fact a fundamental discontinuum of distinct Types and not the functional continuum maintained by Darwinian orthodoxy” (219).

Within the domain of material entities, the distinction between modal laws and type laws is also evident. Consider, for example, the nature of an atom. In the first place we have to note that all atoms reflect the shared property of “being an atom.” This “all” expresses the universality of atomness. Elaborating on our earlier remarks in this regard, we may point out that this universality is *specified*, for it applies to atoms only—and not everything is an atom. In terms of universality and what is individual we can therefore say that in its atomness every individual atom in a universal way shows that it is subject to the law for being an atom. Note that this formulation captures two instances of universality and one of what is individual: universality (the universality of a law and the universality entailed in lawfulness) and what is individual (the individual side of an entity).

The interplay and indissoluble connection between universality and what is individual is captured in an almost contradictory fashion by Goethe:

Was ist das Allgemeine?
 Der einzelne Fall.
 Was ist das Besondere?
 Millionen Fälle.¹¹

Von Weizsäcker explains these remarks as follows: “When I see a plant as a plant, then I see the plant with that.”¹² Note how the articles *a* and *the* mediate between the individual side and universal side of a plant. Once these two sides of existents are recognized as part of the world order in which we live, one can proceed with an attempt to correlate them with two kinds of knowledge.

12 Two Kinds of Knowledge: The Limits of Conceptualizing the World Order

Plato already discovered that if everything is changing, as Heraclitus asserted, then constancy as well as conceptual knowledge will be lost. We will not be able to know anything if it changes constantly.

In passing we may note that the dialectical relation between form and matter generated serious problems in the thought of Plato. His initial conception

11 “What is universal? The individual instance. What is particular? Millions of instances” (quoted by von Weizsäcker [2002, 212]).

12 “Sehe ich eine Pflanze als Pflanze, so sehe ich damit die Pflanze” (quoted by von Weizsäcker [2002, 212]).

(in *Phaedo*) of the *eidē*—as eternal, static, transcendent, and simple ontic forms—proceeds from the conviction that these *eidē* serve as “original images” (*Urbilder*) for their copies (*Abbilder*) found within the world of *genesis* (becoming). The question is, however, how unformed matter can have an original form within the domain of forms (*eidē*). The split between ideal ontic forms and formless matter subsequently directed Plato’s attention to an attempt at reconciling these dialectically opposed principles of origin. Dooyeweerd (2016, 2:9) characterizes this problem as follows:

Plato held to the transcendent *being* of the ideal form-world in the Eleatic sense and included in it the numbers themselves (*eidetic* numbers) as well as the exact geometrical figures. A very rigorous *choorismos* (i.e. isolation) separates the ideal world of true being from that of the phenomena subject to the material principle of becoming and decay. And yet in the ideal world Plato sought the ground of being (*aitia*) of all perishable things. The metaphysical *choorismos* between the principle of matter and that of form entangled his thought in sharp antinomies. ... But how can the ideal form be the essential basis of perishable, complex things, if in the transcendent form-world there is no connection possible between the *eidē*, and if there is not any *paradeigma* here for the principle of matter (the principle of becoming and decay)?¹³

However, whatever is *changing* always presupposes something *enduring* (persistent or constant), for without constancy (and universality), conceptual knowledge will be impossible. In addition, we have to acknowledge that conceptual knowledge is bound to what is universal. The concept of a house, for example (recalling Aristotle’s explanation of coming into being and passing away mentioned earlier), encompasses all houses, not just this one.

Concepts are blind towards what is individual. Does this mean that we do not have knowledge of what is individual? This would only be the case if we identify knowledge with conceptual knowledge, for then we will still be

13 On the same page Dooyeweerd continues: “In the so-called Eleatic dialogues (*Parmenides*, *Sophistes* and *Politikos*) Plato tried to unite the principles of form and matter by means of a dialectical logic. He devised *eidē* of a complex character comprising dialectical relations between simple *eidē* (e.g., *being* as a dialectical unity of movement and rest). Since then he also tried to find an ideal *paradeigma* for the principle of matter in the transcendent world of the forms of being. This is the so-called *idea tou apeiron* (the foundation for the unlimited, the formless) which was called ‘ideal matter’ in Augustinian Platonic Scholasticism.”

following in the footsteps of Aristotle and the Scholastics. Peter Janich (2009, 110) explains the medieval position with reference to the well-known Latin slogan *omne individuum est ineffabile* (Whatever is individual is inexpressible). In a work on epistemology, De Vleeschauwer continues the same legacy when he states that “knowledge of what is individual is simply impossible” (De Vleeschauwer 1952, 213).

What is not considered in this tradition is that we may have to allow for knowledge that is not *conceptual* in nature. Sensory experience and the deictic capacity of language, for example, enable us to transcend the limitations of conceptual knowledge by focusing on the individual (unique) side of things. The kind of knowledge exceeding the limits of conceptual knowledge could be designated as *concept-transcending knowledge* (idea-knowledge). Concepts are formed on the basis of universal features, brought together in the logical unity of a concept. When modal terms are used to refer to entities that function within the confines of a particular mode of being, they are employed in a *conceptual manner*. But whenever a modal term is used to refer to something beyond the limits or boundaries of such an aspect, a *concept-transcending* use of such a modal term is encountered—also designated as an *idea-use* of such terms. When the meaning of the one and the many is stretched beyond the boundaries of the quantitative aspect, we can form the idea of *unity and diversity*. The spatial meaning of continuous extension is synonymous with *coherence* or with *connectedness*, for when all the parts of a continuum are connected, they cohere as parts of a whole (totality). When we speak about something in its totality, the confines of the spatial aspect have been exceeded. The same applies when the spatial term *coherence* is employed to refer to the fact that everything coheres with everything else, for this idea of coherence transcends the restricted meaning of space. In short, concept-transcending notions of uniqueness and coherence are derived from an idea-use of the meaning of number and space, respectively.

From our preceding analysis it is clear that nominalism causes Dooyeweerd to “position” universality (the orderliness of the world) on the law-side of reality, which is done by identifying *law* with *law-conformity*.¹⁴

14 In passing we can note that the opposition of a correspondence theory of truth and a coherence theory of truth reveals a misunderstanding of the logical subject-object relation. The correspondence theory of truth overemphasizes the factual object-side of the logical aspect, whereas the coherence theory of truth overemphasizes the factual subject-side of the logical analytical aspect. In its modal universality, this aspect embraces whatever there is and therefore underlies the ability we have to logically objectify whatever is identifiable and distinguishable.

In order to avoid this shortcoming, the lawfulness of reality should indeed be acknowledged as the universal way in which factual reality evinces its subjection to the (universal) law-side. Allowing for concept-transcending knowledge regarding what is individual in addition enables devastating immanent criticism on the position assumed by nominalism and Dooyeweerd. If factual reality is purely individual, then it cannot display a universal property, such as “being individual.” Of course, Dooyeweerd only follows nominalism insofar as he denies universality at the factual side of reality, for he does accept universal laws. Having stripped what is outside the human mind of its universality, nominalism is nonetheless left with a last remnant of “outside-the-mind” universality—namely, *being individual*.

This issue may prompt us to return once more briefly to the phrase *individual structure*, which Dooyeweerd sometimes used in 1931. Understood literally, this expression creates an additional problem, for it implies that structure—in the sense of universal *law for*—is individual. In other words, it then asserts that a universal law is individual. The ripened designation of the dimension of entities—namely, that it is the dimension of individuality structures—causes further difficulties for Dooyeweerd, once more demonstrating the problematic aftereffect of a nominalistic understanding of the world order in his thought. The phrase *individuality structure* aims at indicating what is found on the law-side. But since individuality is a feature found at the factual side of reality, it cannot be part of the *law for* nature of an individuality structure.

By eliminating the law for and the orderliness of reality, nominalism left factual reality chaotic and unstructured, inviting a substitute to fill the gap of determination thus created. Human understanding took hold of this vacant position since it was elevated to become the new source of order. The peak of this development is reached in the way in which Kant proclaimed human understanding to be the formal law-giver of nature: “Understanding creates its laws (a priori) not out of nature, but prescribes them to nature” (Kant [1783] 1969, 2.320, sect. 36). Kant, on the same page, also acknowledges “*empirical laws of nature* which always presuppose particular perceptions” and which are distinct from these pure (or universal) laws of nature. This distinction between pure or general natural laws and empirical laws of nature runs parallel with the distinction between modal laws and type laws.

This line of development within modern humanism resulted in a reification of the human freedom to give shape to (or to positivize) modal and typical ontic principles. This resulted in the modern ideal of an autonomously free person, either by emphasizing the *nomos* (law) or the *autos* (self). While it was initially appreciated as a universal ordering (construction), the relativism

inherent in late eighteenth-century and early nineteenth-century historicism became restricted to the individual person, allegedly responsible for the construction of his or her own world—compare the titles of the well-known works of Berger and Luckmann (1969) and Schutz (1974).

13 Concluding Remark

Reformational philosophy succeeded in making the idea of a world order fruitful because it realized the importance of ontic normativity (see Strauss 2011a and 2011b). Throughout the history of intellectual reflection in the West, philosophers and special scientists wrestled with facets of the world order. The key distinction for understanding this world order is given in the difference between modal laws and type laws, although we have seen that explicating the nature of the order for the world has to explore elements derived from (arguably) the four most basic aspects of reality: number (the one and the many—and what is individual); space (universality); the kinematic aspect (constancy); and the physical aspect (change). We have also noted that these aspects are not merely modes of existence but also modes of explanation, serving theoretical thought with terms that may either be employed in a conceptual way or in a concept-transcending way.

The modal meaning of terms derived from the first four aspects of reality is therefore open to both a conceptual and a concept-transcending use. The idea of the uniqueness (or individuality) of entities explores the meaning of number in a concept-transcending way. The being distinct of entities refers to *all* aspects of an entity, not merely its quantitative facet. Likewise, speaking about the coherence between aspects or about universality as trait explores the meaning of space in a concept-transcending manner. Persistence amidst change highlights our awareness of identity, which explores the core meaning of the kinematic aspect in a concept-transcending way. And Plato's insight that change can only be detected on the basis of something enduring illustrates that the idea of continuous change actually unveils the foundational coherence between the kinematic and physical aspects.

The arguments articulated and the distinctions discussed in our foregoing analysis reveal key elements of an articulated transcendental ground-idea in relation to the idea of a world order. By employing basic terms such as *individuality*, *universality*, *constancy*, and *change*, we have discussed the important distinction between law-side and factual side, and order for and orderliness of; and in the light of these distinctions, we have focused on the distinction

between unspecified universal modal laws (and norms) holding for all possible classes of entities and type laws holding for a limited class of entities only (see Stafleu 1980, 6ff., 11). This approach avoids the one-sided and distorting views entailed in attempts to elevate one modal aspect as the sole mode of explanation for the entire universe, manifest in reductionist “ismic” orientations such as atomism, holism, a mechanistic approach, physicalism, vitalism, psychologism, logicism, and so on. Once confronted with a world order, the epistemic subject has to respond, either by acknowledging the uniqueness (sphere sovereignty) and coherence (sphere universality) of all modal aspects or by becoming a victim of a reductionist view of reality.

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