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ARTICULATING (ULTIMATE) COMMITMENTS: HISTORICAL, FACTUAL AND SYSTEMATIC CONSIDERATIONS

ABSTRACT

Acknowledging that religion forms a constitutive part of human life is recently confirmed by *Göbekli Tepe*, an archaeological site in Turkey, from which it appears that religion is basic to all the other cultural developments within human society. This opened the way to illustrate the interplay between ultimate commitments and theoretical articulations with reference to the *a priori* commitment to *gradualism* (continuous change) as found in the thought of Darwin and neo-Darwinism. Subsequently a related brief analysis is given of the ultimate commitment motivating the development of Greek philosophy and Medieval philosophy and theology. Distinguishing between conceptual knowledge and concept-transcending knowledge (concept and idea) brought the views of Plotinus, Augustine, Thomas Aquinas, Dengerink and Tillich into the discussion. Negative theology is used to show how ontic conditions play a role in the articulation of ultimate commitments. The long-standing commitment to reason, embodied in the identification of *thought* and *being*, resulted in what the physicist, Carl Friedrich von Weizsäcker, calls *faith in science* which according to him is the *governing religion* of our time. The philosophy of science of the 20th century acknowledges that scholarly activities are co-conditioned both by *theoretical commitments* and *supra-theoretical ultimate commitments* – the central dimension of human existence in which the antithesis between Christian and non-Christian convictions is seated. Wolters emphasizes that all aspects of created life and reality are in principle equally good, and all are in principle equally subject to perversion and renewal.

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SUN MODIA
BLOEMFONTEIN

The aim of this article is to argue that scholarly endeavours inevitably entail *theoretical commitments* (paradigms) which are rooted in *ultimate commitments*. It opposes the traditional (positivistic) view that intellectual pursuits are “objective” and “neutral”.

1. THE SYMBOLICAL CONSTRUCTION OF THEORETICAL VIEWS AND ULTIMATE COMMITMENTS

Human beings are known to be able to reflect upon their own condition and to articulate their deepest convictions about life. Throughout the history of humankind this ability appears to have had an intrinsic connection with what is recognized as *religion* or *religious belief* (see Van Huyssteen, 2006:203 ff.). Yet the traditional understanding of the uniqueness of being human elevated human *rationality* or “reason” to be the decisive and distinctive feature. In the course of the 20th century, perhaps owing to the influence of the so-called linguistic turn by the end of the 19th and the beginning of the 20th centuries, the *symbolic* capacities of humans assumed an important place. As Von Bertalanffy states it: *symbolism* is the “divine spark distinguishing the most perfectly adapted animal from the poorest specimen of the human race” (Von Bertalanffy 1968:20). He employs the following criteria regarding symbols: (a) they are *representative* in the sense of substituting what is symbolized; (b) they require learning processes mediated by tradition – and in this they fundamentally differ from instincts; and (c) they are created freely (Von Bertalanffy 1968:15, cf. 1968a:134). Van Huyssteen also gives prominence to symbolic behavior in his discussion of the uniqueness of being human and assigns *art* and *religion* to “the cognitive capacity to generate mental symbols” (Van Huyssteen 2006:203).

Roelofse points out that *symbolism* differs from ordinary connotative meanings as well as from myths “in that it allows only for [a] specific interpretation. ... It is, one may say, totally culturally determined” (Roelofse 1982:89).

Particularly Ernst Cassirer introduced the idea of *symbolic forms* which he explained in a three volume work bearing the title *Die Philosophie der symbolischen Formen* (1923-1929). In a smaller work on language and myth he holds that “myth, art, language and science appear as symbols” (Cassirer 1946:8). According to him language entails two powers – not only *myth* but also *logic* (Cassirer 1946:97). Language gave birth to science and mathematics while myth generated art and religion. Its relation to what is

symbolic even caught the reflection of philosophers of nature and natural scientists.

In the light of the fact that within physical theories a particular theoretical statement can never as such or in isolation directly be confronted with a singular event or sensory experience, the philosopher, Hugo Dingler, introduces the idea of *symbolical construction* to account for the status of physical theories. This view was followed by the mathematician, Hermann Weyl, who believes that the “constructive character of the natural sciences, the situation that their individual propositions do not have a verifiable meaning in intuition (*Anschauung*),” entails “that truth builds a system which can only as a whole be assessed” (Weyl, 1966:192). Max Planck holds a similar conviction where he states:

Strictly seen it is totally impossible to find any physical question which can be assessed directly through measurements without the aid of a theory (Planck 1973:341).

The next step was taken by philosophers of science from the 20th century, because it turned out that theoretical thinking itself is guided by an unavoidable *cognitive trust*. According to Mühlenberg Clement of Alexandria (150-250) already held the view that all theology is founded upon knowledge proceeding from an *immediate conviction* (Mühlenberg 1966:73).

The well-known philosopher of science from the second half of the 20th century, Wolfgang Stegmüller, is quite emphatic in this regard, for according to him there is no domain where human thinking has a “self-guarantee”: “One already has to believe in something in order to justify something else” (Stegmüller 1969:314). Whereas an uncritical rationalism considers human thinking to be *self-sufficient* and *autonomous*, Popper points out, in his *critical rationalism*, that the rationalistic trust in reason is not *rational* itself. He refers to “an irrational faith in reason.” This entails that “rationalism is necessarily far from comprehensive or self-contained” (Popper 1966-II:231). De Vleeschauwer approximates this view of Popper when he says:

A science without any ‘presuppositions’ is therefore purely from a rational standpoint impossible. The last reality towards which epistemology drives us, is an act of faith in thinking ... (De Vleeschauwer 1952:244).

The fact that *confidence* and *trust* guides human life acknowledges the prominent role of the *certitudinal* or *fiduciary* dimension of human life – normally also designated as the *religious sphere*. Recent archaeological discoveries have turned upside down the traditional understanding, according to which religion is a late phenomenon in the existence of

humankind. Mann reports on an archaeological site in Turkey (*Göbekli Tepe*) which supports the opposite view while showing that there was not a development from the domestication of plants and animals, agriculture and permanent settlement to religion. Rather, *religion* appears to be basic for all the other cultural developments within society (see Mann 2011:41). Curry announces this remarkable finding as follows:

Six miles from Urfa, an ancient city in southeastern Turkey, Klaus Schmidt has made one of the most startling archaeological discoveries of our time: massive carved stones about 11,000 years old, crafted and arranged by prehistoric people who had not yet developed metal tools or even pottery. The megaliths predate Stonehenge by some 6,000 years. The place is called Gobekli Tepe, and Schmidt, a German archaeologist who has been working here more than a decade, is convinced it's the site of the world's oldest temple (see Curry 2008).

Roy Clouser accepts the view that religion is co-constitutive for being human and challenges the dogma of *religious neutrality*. He designates an ultimate commitment as a religious belief, which he defines as follows:

A religious belief is a belief in something as divine per se no matter how that is further described, where 'divine per se' means having unconditionally non-dependent reality (Clouser 2005:23).

In terms of this definition both the dominant *physicalistic* and *biologistic* theories of our day are proceeding from *religious assumptions*, because the role of matter in the *Big Bang* account serves as such a *physical* origin, just as "evolution" acquired this unconditionally non-dependent reality in present-day biological thought. The current *physicalism* posits matter to be non-dependent and whatever else there is, is dependent upon it. Likewise, neo-Darwinism posits *evolution* to be the random force which, through mutation and natural selection, conditions whatever else there is.

Richard Rorty exemplifies the impasse of these assumptions, because he embedded his own commitments in the core religious beliefs of neo-Darwinism. Clouser notices that in spite of his emphasis on contingency and his relativist leaning, Rorty ultimately has committed himself to the physicalistic-biologistic orientation of neo-Darwinism (see Clouser 2005:336-337).

Before we illustrate the role of theoretical and ultimate commitments operative in neo-Darwinism below, we may mention the dilemma of a theologian who buys into the naturalism of neo-Darwinism. It is indeed strange that the theologian, Wentzel Van Huyssteen, is convinced that our universe "and that all it contains is in principle explicable by the

natural sciences” (Van Huyssteen 1998:75). Yet, flatly contradicting this *Enlightenment* rationalist and naturalist commitment, he also warns, a mere 40 pages further on in the same work, that we should not overextend rationality “to explain everything in our world in the name of natural science” (Van Huyssteen 1998:115)!

2. BACKGROUND UNCERTAINTIES REGARDING HUMANKIND

2.1 *Lacking physical evidence*

Whereas it is possible to investigate contemporary humans in multiple scholarly ways and determining what is distinctive about them, the problems confronting conjectures about human origins are still serious enough to preclude final answers.

Raymond Dart is famous for his discovery of the *Taung Child* (belonging to the *Australopithecines*) in 1925. A former assistant of him, Lyall Watson, highlighted the scarcity of fossil material regarding humankind in 1982:

The remarkable fact is that all the physical evidence we have for human evolution can still be placed, with room to spare, inside a single coffin. ... Modern apes, for instance, seem to have sprung out of nowhere. They have no yesterday, no fossil record. And the true origin of modern humans ... is, if we were to be honest with ourselves, an equally mysterious matter (Watson 1982:44).

In 1990 Richard Leakey, perhaps the most famous paleo-anthropologist in the world, honestly confessed that in respect of human origins “all we have is a huge question mark” (PBS Documentary 1990).

During the early seventies of the previous century, with the discovery of *Homo habilis* and the fossil which received the registration number 1470, it seemed as if the picture may be captured in the succession of *Australopithecus*, *Homo habilis*, *Homo erectus*, *Homo sapiens*, with the 14 million-year-old *Kenyapithecus* as a probable member of the *hominidae* family. However, the latter turned out to be nothing more than an ape and the tests of Spoor and his friends have shown that *Homo habilis*

habitually did not walk upright.¹ Eventually also the place assigned to the *Australopithecines* became problematic. Gould, for example, argued for

the removal of the different members of this relatively small-brained, curiously unique genus *Australopithecus* into one or more parallel side lines away from a direct link with man (Gould 1992: 60).

And ten years later Gould gave the following general assessment:

Needless to say, no true consensus exists in this most contentious of all scientific professions – an almost inevitable situation, given the high stakes of scientific importance and several well known propensities of human nature, in a field that features more minds at work than bones to study (Gould 2002:910).

In a recent issue of *National Geographic* Josh Fishman wrote an article: *Part Ape, Part Human, A new ancestor emerges from the richest collection of fossil skeletons ever found*. The recent finding of *Australopithecus sediba* occupies the centre of attention in it. Fishman remarks that the origins of the genus *Homo* are “murky” because only “a few scattered and fragmentary fossils older than two million years have been argued to belong to the genus” (Fishman 2011:131). He then mentions two to three possible *Homo* species, such as *Homo habilis* and *Homo erectus* (the latter contemporaneous with *Homo habilis*), followed up by the question where did all these characters come from? He writes:

Attempts to look deeper into the past only increase the frustration, says William Kimbel, a palaeoanthropologist at Arizona State University and Director of the Institute of Human Origins there. ‘There are only a handful of specimens. You could put them all into a small shoe box and still have room for a good pair of shoes,’ he says.

Fishman remarks in connection with Sediba:

The biggest problem with sediba is timing. ‘If two-million-year-old sediba is indeed the true ancestor of *Homo*, how could it give rise to those even older fossils assigned to *Homo* in Bill Kimbel’s shoe box? A fossil cannot be ancestral to something older than itself any more than a daughter can give birth to her own mother. One possibility is that the Malapa specimens represent a late stage of an enduring species that gave rise to *Homo* at an earlier date. But Berger’s team questions whether that shoe box really contains any *Homo* fossils in the first place – after all, they’re just fragments’ (Fishman 2011:133).

1 See De Burgh 1995:21 and Spoor, *et.al.* 1994:645-648.

2.2 *The theoretical commitment to continuous change and its impasse as articulated by Gould*

What should be kept in mind is that Darwin's expectation of a continuous transitional fossil record remained in conflict with the dominant pattern of this record up to the present. This pattern is *stasis*, *constancy* (i.e., *discontinuity*). The constancy of fossil forms – which generally appear fully formed and remain unchanged until they disappear – must be appreciated against the background of constantly changing natural conditions. It is unavoidable that constancy or stasis over millions of years must have faced numberless “attacks” caused by changes in the environment, thus providing natural selection with abundant opportunities to bring about visible changes to the continuously adapting species. However, the empirical (paleontological) fact that this is *not* the case, did not escape Gould's attention, as it is clearly reflected in his words:

... if stasis merely reflects excellent adaptation to environment, then why do we frequently observe such profound stasis during major climatic shifts like ice-age cycles ..., or through the largest environmental change in a major interval of time ... ? (Gould 2002:878).

Also compare the words of one of the champions of the neo-Darwinian “New Synthesis,” Ernst Mayr:

Paleontologists had long been aware of a seeming contradiction between Darwin's postulate of gradualism – and the actual findings of paleontology. Following phyletic lines through time seemed to reveal only minimal gradual changes but no clear evidence for any change of a species into a different genus or for the gradual origin of an evolutionary novelty. Anything truly novel always seemed to appear quite abruptly in the fossil record (Mayr 1991:138).

Without considering the merits of a neo-Darwinian approach in biology as such, the striking question to be raised is why the *commitment to a strong conviction*, such as *gradualism*, stays alive in spite of the widely acknowledged dominance of *stasis* (“non-gradualism”) within the fossil record?²

2 Gould underscores this point too: “The clear predominance of an empirical pattern of stasis and abrupt geological appearance as the history of most fossil species has always been acknowledged by paleontologists, and remains the standard testimony... of the best specialists in nearly every taxonomic group. In Darwinian traditions, this pattern has been attributed to imperfections of the geological record that impose this false signal upon the norm of a truly gradualistic history. Darwin's argument may work in principle for punctuational origin, but stasis is data and cannot be so encompassed” (quoted by McGarr 2006: 242).

In his last encompassing work Stephen Gould finds an answer to this question by attributing it to the *scholarly commitment* to (*scientific belief* in) *continuous transitions (gradualism)*. Before the idea of punctuated equilibrium became known evolution was falsely defined as *gradual change* – which caused paleontologists to see *stasis* as “non-data” (see also McGarr 2006: 242).

This *false definition of evolution as continuous change* reveals a *commitment* to an underlying assumption which caused, according to Gould, a predicament which is truly *tragic*, because stasis over millions of years rests on the “presence of data, not on absence!” (Gould 2002: 759). This leads to the question how gradualism could face this most prominent signal from the fossil record? Gould continues by observing that this project cannot succeed in its own terms, because *gradualism* occurs too rarely to generate enough cases for calculating a distribution of rates. Alternatively “paleontologists worked by the false method of exemplification: validation by a ‘textbook case’ or two, provided that the chosen instances be sufficiently persuasive.” But even here, Gould remarks that “at this utterly minimal level of documentation, the method failed” and then adds: “A few examples did enter the literature, ... where they replicated by endless republication in the time-honored fashion of textbook copying ...” “But, in final irony, almost all these famous exemplars turned out to be false on rigorous restudy.”

The intellectual history of the West since and after the Renaissance was in the grip of the ideal of a free and autonomous personality (known as the personality ideal or freedom motive), which gave birth to its counterpart, the natural science ideal (nature motive). The motive of *logical creation* accompanied this science ideal and it brought to expression a more-than-rational *commitment* to the power of human thinking, supposedly capable of bridging theoretically all discontinuities found within the universe. This *continuity postulate* dominated the thought of Leibniz and it exerted a direct influence upon the thought of Darwin. The striking effect of this continuity postulate is that it obscured the (neo-) Darwinian assessment of the data of the fossil record by overemphasizing its supposed *imperfection*. According to Gould this supposition is not supported by *data*. The powerful *commitment* behind this assumption, which upholds this prejudice of “perfection,” is given in a faith in slow, incremental (“infinitesimal”), continuous change.³ Gould distinguishes the two key elements of this *commitment* found in Darwin’s thought:

3 “Natural selection acts only by the preservation and accumulation of [infinitesimally – Darwin 1859:142] small inherited modifications” (Darwin 1859a:56).

- (a) "Gradualism may represent the most central conviction residing both within and behind all Darwin's thought" (Gould 2002:148);
- (b) "I believe, therefore, that Darwin's strong, even pugnacious, defense of strict gradualism reflects a much more pervasive commitment, extending far beyond the simple recognition of a logical entailment implied by natural selection – and that this stronger conviction must record such general influences as Darwin's attraction to Lyell's conflation of gradualism with rationality itself, and the cultural appeal of gradualism during Britain's greatest age of industrial expansion and imperial conquest" (Gould 2002:151).⁴

His indebtedness to the continuity postulate (*gradualism*) explains why the thought of Darwin is actually embedded in the development of modern philosophy, particularly dominated by the science ideal. The classical school in economics (Adam Smith and his followers), in the spirit of the science ideal, is searching after the *exact natural laws* governing economic life, such as the so-called law of *supply and demand*.⁵ While

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- 4 Darwin's *a priori* commitment to the soundness of the *continuity postulate* is articulated in the mentioned idea of "infinitesimally small inherited modifications" (see the previous footnote). It is so thoroughly ingrained in Darwin's theoretical views, that he concedes that his entire theory will break down if this postulate does not hold (see Darwin 1859a:109). Gould reminds us that "my theory" here specifically refers "to the mechanism of natural selection (and not simply to the assertion of evolution)" (Gould 2002:150). Gould here appeals to Gruber, Barrett and Mayr who also highlighted the key role of *gradualism* in the thought of Darwin. Gould points out: "Gradualism had been equated with rationality itself by Darwin's chief guru, Charles Lyell. All scholars have noted the centrality of gradualism, both in the ontogeny (Gruber & Barrett 1974) and logic (Mayr 1991) of Darwin's thought" (Gould 2002:151).
 - 5 Gould mentions the assessment of the historian of science, Silvan S. Scheber, who holds that "the theory of natural selection is, in essence, Adam Smith's economics transferred to nature" (see Gould 2002:122). Gould and Eldredge mentions an instructive quotation from a letter by Marx to Engels: "It is remarkable how Darwin recognizes among beasts and plants his English society with its division of labor, competition, opening up of new markets, 'invention,' and the Malthusian 'struggle for existence.' It is Hobbes' bellum omnium contra omnes, [war of all against all] and one is reminded of Hegel's Phenomenology, where civil society is described as a 'spiritual animal kingdom,' while in Darwin the animal kingdom figures as civil society" (Gould & Eldredge 1977:145). Eldredge is Curator in the "Department of Invertebrates" at the *American Museum of Natural History*.

contrasting biology and mathematics Brown recently still suggests a link between Malthus and capitalism with some basic ideas of Darwin:

One cannot think of any extraneous intellectual currents, for example, that would inspire theorems of algebraic topology similar to the way Malthus or the ruthless British nineteenth century climate of nascent capitalism provided metaphors that may have stimulated Darwin's concepts of natural selection and the struggle for existence (Brown 2012:6).

Our preceding analysis considered examples which reveal the intimate connection between theoretical commitments and ultimate commitments, such as the way in which the natural science ideal informed and directed the theoretical commitment to the continuity postulate. The science ideal itself is rooted in the personality ideal. This basic motive of *nature* and *freedom*, in turn, which reveals the *ultimate commitment* of mainstream modern philosophy since the Renaissance,⁶ is a reaction to the medieval scholastic motive of *nature* and *grace* which resulted from the attempt to synthesize the ancient Greek motive of *form* and *matter* with the biblical basic motive of *creation*, *fall* and *redemption* (cf. Dooyeweerd 2003).

3. ARTICULATING ULTIMATE COMMITMENTS WHICH ARE DIALECTICAL IN NATURE

3.1 Greek philosophy

The earliest Greek philosophers were confronted with an urge towards *incorruptibility* amidst a world of *flux* and *change*. Initially the *archè* (origin) of the universe was found in something with a *fluid (formless)* nature, such as *water*, *air* or *fire*. These designations exceed the normal everyday use of these terms, because they are employed to capture the origin flowing through whatever there is. When Anaximander opts for what he calls the *infinite-unbounded* (the *apeiron*) he gives priority to what is *changing*, because anything coming into existence (i.e. taking on a limited form)

6 See the more extensive analysis of the dialectical development of the ground motive of nature and freedom in Strauss, 2011. Precisely because they are *ultimate* these poles presuppose and threaten each other, exemplified in the statement of Karl Jaspers: "Science freedom is only through and against nature, it must, as freedom, fail" (Jaspers 1948:871). The early thought of Wittgenstein exhibits the ambiguity present in the nature-freedom dialectic where he holds: "There are two godheads: the world and my independent I." (Notebooks 74,15) – *nature* (the "world") and *freedom* ("my independent I").

committed something unjust and will, according to the order of time, cease to be (pass away) (Diels-Kranz 1959-60, B Fr.1). At the same time Anaximander holds that the *apeiron* is without ageing (B Fr.2) and that it is without *death* and *corruptibility* (B Fr.3).

Being without *ageing*, *death* and *corruptibility* reveals an element of *persistence*, of something *enduring*, even though this side of the *apeiron* is subordinate to its *fluid* and *formless* nature (as the *infinite-unlimited*). Clearly, the two poles both presuppose and repel each other – typical of a *dialectical* ultimate commitment.

Copleston observes in this dialectic the interplay of *constancy* and *change*, for according to him the Ionian philosophers had the wisdom to discern

that, in spite of all the change and transition, there must be something permanent. ... There must be something which is primary, which persists, which takes various forms and undergoes this process of change (Copleston 1985:20).

Change therefore does not merely concern “a conflict of opposites,” but points at the *permanence* (or *constancy*) of a principle of origin (Copleston 1985:20).

While the flowing principle of origin was considered to be *divine*, it was partially *de-divinized* in the thought of Empedocles, for Aristotle points out that the four elements (*fire*, *earth*, *air* and *water*) were treated as if they were just two (fire as opposed to the other three): “he treats fire by itself, and its opposites – earth, air, and water – as one kind of thing” (cf. Aristotle, *Metaph.* 985 b 1-3; 2001:697). Parallel to this opposition Empedocles distinguishes a divine soul force (*philia* = love) and a non-divine soul force (*neikos* = strife). The complete de-divinization of the matter motive took shape in the thought of Anaxagoras, who gave primacy to the form motive and who separated the *nous* (mind) in its pure “matterlessness” from the formless germs of matter. He employed a number of key terms in his characterization of the *nous*, such as *infinity*, *being self-governing*, *being in itself*, being the *finest* of all things, having *complete understanding* and having *the greatest power*:

Other things all contain a part of everything, but Mind is infinite and self-ruling, and is mixed with no Thing, but is alone by itself ... For it [*nous*] is the finest of all Things, and the purest, and have complete understanding of everything, and has the greatest power (πάντων νοῦς κρατεῖ) (Freeman 1956:84).

From the *de-divinization* of the rigid, motionless and disorderly germs of matter we can see why the *nous* now obtained a divine status. The

subsequent development of Greek philosophy up to Socrates, Plato and Aristotle proceeded under the primacy of the form motive. The latter continued to presuppose its dialectical opposite, namely the *matter* motive. Neither Plato, nor Aristotle succeeded in bridging the gap between these two principles of origin. Plato was quite aware of the implications of this dualism, because he realized that everything within the *world of becoming* is in need of an *ontic form* within the intelligible realm of static ideas. Yet the unsolvable problem was that within the world of *forms* there is not a *form* for the *formless* (for *matter*)! The “solution” which he pursued in his later dialogues, was to introduce an *eidetic matter* (*hulè* – compare in particular the dialogue *Timaeus* and the extensive discussion in Dooyeweerd 2003:263 ff.).

The upshot of the Greek wisdom regarding creation is that nothing can come from nothing (*ex nihilo nihil fit*). For this reason the divine *workmaster* (*demiourgos*) and the self-contemplating deity of Aristotle could not bridge the gap between form and matter as principles of origin.

3.2 Augustine and Aquinas

Both Augustine and Thomas Aquinas continued to struggle with this dualism. The former partially pursues the path of *negative theology* by doubting if positive statements about God could be formulated (cf. *Confessiones* XI,20 and *De Trinitate* V,10). Augustine assumes the existence of *nothingness* (the opposite pole of God), “out of” which God created all things. Böhner and Gilson highlight this split:

all things are good because they are created by God; all things are subject to an inner dissatisfaction because they were made out of nothing (Böhner and Gilson 1954:200-201).

As in the case of Dionysius also Augustine finds the source of evil in the *nothing* which is further removed from God than the non-being of matter. Even *unformed matter* sets a limit to thought – a boundary that Augustine attempted to transcend by focusing on *formed* matter. According to him God did not create matter *without form*.⁷ The same problem is found in the thought of Thomas Aquinas in respect of primary matter (*prima materia*). In terms of the Aristotelian conception a substance is constituted by *matter* and *form*. The effect of this view is that he does not speak in creational

7 See Augustine, *De Genesi ad litteram* 1,15. Later on, in *Confessiones* XII,6, Augustine holds that formless matter acquires form concurrent with its creation. The returning question is whether matter, in its formlessness, is indeed *created*?

terms about the *prima materia*. In his *Summa Theologiae* (*S.Th.*) (I,44,2 – see Aquinas 1945). Thomas states (in the third objection) that it is against the nature of matter, which exists only potentially, to be *created*. Yet, in his *Reply* he argues that the *Objection* does not show that matter is uncreated, but merely that it is not created *without form*! Likewise, in *S.Th.* (I,15,3) Thomas contends that although matter is created, it is not created *without form*. The same problem continues to burden what Thomas Aquinas says in his *Summa contra Gentiles* (*S.c.G.*). In spite of arguing that God (as *actus purus*) brought everything into existence without matter, the following question is not yet answered: is primary matter created without form? At the end of *S.c.G.* II,16, he holds that since God is the cause of all things (*causa omnium*), he is also the cause of primary matter (*Deus igitur est causa materiae primae*), but still he does not provide a direct answer to the above-mentioned question! From the perspective of the (un)knowability of primary matter, the link to form is confirmed. He believes that in itself matter does not have *being* and therefore cannot be *known*. For example, Thomas considers *evil* to be unknowable because it is a lack of goodness (*est privatio boni*) (*S.Th.* I,14,10), explaining why God can only know it by means of the good (*per bonum*). As *privatio boni* it cannot be determined (*definiri*) in itself or known in itself (*S.Th.* I,14,10).

The upshot of the Thomistic nature-grace synthesis with Greek philosophy is captured in the well-known statement: *gratia non tollit naturam, sed perficit* – nature is not destroyed by grace, but perfected by it (see *S.Th.* 1, q. 1, a. 8).

3.3 Modern humanism

Thus far our main focus was on the modern humanistic basic motive of *nature* and *freedom*, on the Greek dialectical motive of *matter* and *form* and on the medieval ground motive of *nature* and *grace*. We have seen that there is an intimate connection between *theoretical commitments* and *ultimate commitments*. The example we have chosen focused on the *theoretical postulate* that *nature does not make jumps*. Within modern philosophy this slogan acquired a special content owing to the fact that it is rooted in a deeper commitment, the supra-theoretical basic motive of *nature* and *freedom*. The (natural) science ideal indeed determined the way in which the *continuity postulate* took shape, aimed at a logical reconstruction of the universe in terms of creative human understanding.

4. ONTIC CONDITIONS AND (ULTIMATE) COMMITMENTS

Our human experience of the world is co-conditioned not only by its *temporality* and *multifaceted* nature, but also by the diverse *processes* and *events* constantly taking place within it. The striking fact concerning *ultimate commitments* is that they often draw upon ordinary givens within reality. What is, after all, more ordinary than *water* and *air*, or (the number) *one*? Without drinking fluids and without breathing we cannot even be *alive*. Yet ancient Greek philosophers stretched the use of these terms beyond their everyday meanings by using them to articulate their ideas about the *archè*, bringing to expression their *ultimate commitment*.

Something similar can happen with terms derived from the various *aspects* of reality. Let us compare the views of the neo-Platonic thinker, Plotinus, a 20th century theologian, Paul Tillich, and a 20th century philosopher, J.D. Dengerink.

4.1 *Plotinus*

Plotinus gave the number *one* a peculiar status. In his *Enneads* Plotinus holds that the *One* is elevated above all *thought* and *being* while, as a completely undifferentiated unity, it precludes numerical multiplicity (cf. *En.* III,9,9; V,1,7; V,1,6; VI,9,6). This reminds us immediately of the Pythagorean rejection of multiplicity with their symbol *Apollo* (a = not; pollon = of multiplicity). Plotinus had a *negative understanding* of the name *One* and was convinced that rather than thinking positively about the *One*, greater wisdom would be found in silence. But the negation of affirmations cannot avoid *minimal positive designations* – such as referring to the *Absolute Beautiful* and *Absolute Good* (*En.* I,8,13,10). Plotinus actually uses the terms *Beauty* and *the Good* in a twofold sense. In the one instance he employs these two terms in a lower-order sense, and in the other they are understood in the sense of the absolute *Unity*. Sometimes Plotinus characterizes the *One* as being elevated above the good (*En.* VI,9,6,41; cf. VI,7,33,19 ff.). The upshot of all of this is that he acknowledges what is *beautiful* and *good* in an ordinary (everyday) sense, while at the same time he speaks of a *Beauty* above *beauty* and a *Good* above the *good* (*En.* VI,7,32,29). Note, however, that Plotinus nowhere states that the *One* is elevated above the absolute (undifferentiated) *Unity*!

The two poles of form and matter present in the basic motive of Greek philosophy therefore took on a different shape in the thought of Plotinus, because the *One* is form-giving (although form-less) (cf. *En.* VI,7,17,17-18),

whereas matter is a permanent substrate (form-receiving) (*En.* II,4,4,8; cf. II, 4,6,4 and 19).

The dialectically opposed poles operative in the philosophy of Platonism and neo-Platonism caused the thinkers captured by this *basic commitment* to use familiar (everyday) terms in unfamiliar ways, ways that exceed their ordinary range of meanings. We may designate the familiar use of creational terms as *conceptual* and the exceptional use of such terms as *concept-transcending*.⁸

4.2 Paul Tillich

Paul Tillich employs a similar view in terms of his distinction between *form* and *dynamics*. He argues that *dynamics* exceeds a *delimited form* and therefore escapes a conceptual grasp. Yet, according to him, in almost all mythologies an approximation of such a dynamic is found. He mentions indications such as *chaos*, the *tohu-va-bohu*, *night*, and *emptiness* (which precedes creation). He adds that it also appears in metaphysical speculations such as *Urgrund* (Böhme), *will* (Schopenhauer), *will to power* (Nietzsche), the *unconscious* (Hartmann, Freud), *élan vital* (Bergson), *strife* (Scheler, Jung).

The important insight highlighted in Tillich's understanding is that to his mind

none of these concepts is to be taken *conceptually* (my emphasis – DS). Each of them points symbolically to that which cannot be named (Tillich 1964:198).

At this point we are quite far away from the ordinary (everyday) meanings of the terms *form* and *dynamics* for the original modal (aspectual) meaning of the term *form* is found in the aspect of space, while that of *dynamics* is derived from the physical aspect. If these terms are used in a *conceptual* way nothing of the intended *symbolical pointing* beyond is made manifest. But once the terms are not “taken conceptually” they can point, in a concept-transcending manner, beyond their original conceptual context. Of course the rear-side of this distinction between concept and idea (conceptual knowledge and concept-transcending knowledge – see Strauss 2010) is found in the long legacy of a so-called negative theology in which it is alleged that whatever is considered to be the origin of the universe could only be approximated through negations. Yet, in spite of

8 The fruitfulness of this distinction for a biblically informed account of our knowledge of God is articulated in Strauss 2010.

the aim of avoiding affirmations, there is always a last remnant of positive determination, such as the *One* of Plotinus.

4.3 Jan Dengerink

In a work on the *meaning* of reality Dengerink advances a particular understanding of the similarities between the *quantitative aspect* and other aspects. Dengerink realizes that the central *unity* of human existence (the *heart* – in its central biblical sense as the religious root of human existence)⁹ is not a mathematical point. Yet he acknowledges that it cannot be separated from the core meaning of *number*. But the next step, which was not taken by Dengerink, would have been to distinguish between a conceptual use and an idea-use of numerical terms.¹⁰ In one instance he indeed approximates this distinction:

Also in respect of the numerical we therefore have to avoid a mathematical functionalist reduction, that is to say, of identifying the numerical with what rightfully belongs to the field of investigation of arithmetic. The numerical in turn stretches far deeper than the

9 Von Meyenfeldt has shown that the Hebrew term for the heart (Leb / Lebab) in the Old Testament is predominantly used in this *religious* sense (318) times, whereas its “non-central” usages are less frequent: in a spatial sense 14; in a biotic sense 14; in a sensitive sense 159; for knowing 83, for willing 93 and in an ethical sense 108 (see Von Meyenfeldt 1950:214).

10 When this issue is approached from a *theo-ontological* perspective, creational properties, such as numerical ones, are first elevated into the “essence of God” and then copied back into creation. A topical example is found in a theo-ontological emphasis on the Trinity. Lee (1978) holds that copies of the triune nature of God is found within creation (such as *present, past* and *future*; the three states of matter – *solid, fluid* and *gaseous*; *truth, beauty* and the *good*; and so on). We are used to conceptual uses of a triunity, for example exemplified in the concept of a *triangle*, i.e. when three line stretches are brought into the unity of a *triangle* (the three angles and sidelines constitute the geometrical triunity of the triangle). However, when we formulate, as an article of the Christian faith, the idea of a triune God, the term *triunity* acquires a concept-transcending use. This concept-transcending employment of the term “triunity” (*Trinity*) is not in need of a theo-ontological interpretation, because we do not have to elevate something creaturely, such as a *triunity*, into the essence of God and then copy it back to creation. We merely have to use what *is* (and what *remains*) *creational* to point in a concept-transcending way to what exceeds creation (similar to what is done when it is affirmed that God is *life*, that God is *omnipresent*, that God is *just*, and so on).

numerical in its mathematical meaning. As such it is only possible to be understood in a referring idea (Dengerink 1986:240).¹¹

However, it is not the numerical that stretches (or *functions*: “fungeert”) “far deeper” – the issue is that in order to refer to the (central) depth dimension of reality one inevitably has to use numerical terms stretched beyond the limits of the meaning of the quantitative aspect. What is approximated in a “referring idea” is not the numerical in its deeper stretching than its mathematical meaning, but the said depth dimension of reality referred to by employing the modal quantitative term “unity” in a concept-transcending way. Note that in this explanation two *spatial terms* are also repeatedly used in a concept-transcending way, namely the terms “central” and “depth”.

5. CONVERGENCE WITH 20TH CENTURY PHILOSOPHY OF SCIENCE

If the nature of concept-transcending knowledge is not acknowledged one can easily end up in the *cul de sac* of negative theology. Of course such a position cannot account for the straightforward *positive* biblical mode of speech about God, captured in expressions like God is love, God is almighty, God is omnipotent, and so on.

At this point we may return to the necessity and inevitability of a *theoretical view of reality* – not only for theology in general – but also for the way in which even theology and all the other academic disciplines may account for their *ultimate* and *theoretical commitments*.

It may be fair to say that ever since Parmenides identified *thought* and *being* (“for the same if thought and being,” Diels-Kranz, B. Fr. 3) the Western intellectual legacy in its dominant trends *committed* itself to a *trust in reason*. According to Cassirer, Hegel was convinced that only his “Wissenschaft der Logik” has completed the philosophical circle which aimed at the identity of reality and reason (Cassirer 1957:10). The persistence of the modern natural science ideal in particular is clearly seen in the widespread trust in *theoretical reason*. The well-known physicist,

11 “Ook ten aanzien van het numerieke moeten we ons derhalve hoeden voor een mathematisch-functionalistische verschraling, d.w.z. voor een identificate van het numerieke met datgene wat rechtens tot het veld van onderzoek van de getallenleer behoort. Het numerieke reikt op zijn beurt veel dieper dan het numerieke in mathematische zin en is als zodanig slechts in een verwijzende idee te vatten.”

Carl Friedrich von Weizsäcker, is quite specific in this regard, for according to him *faith in science* is the *governing religion* of our time.¹²

Within this context the outcome of the philosophy of science of the 20th century is quite remarkable, because it not only emphasizes the inevitability of a theoretical frame of reference (*paradigm*), but also acknowledges that the commitment to reason is not itself rational (compare the statements quoted from Stegmüller and Popper at the beginning of our analysis). Every theoretical frame of reference entails a specific theoretical view of reality.

Stegmüller underscores the self-insufficiency of human thought:

A self-assurance of human thought is excluded, wherever one may consider it. One can never reach a positive result without pre-suppositions. One has to believe in something in order to justify something else (Stegmüller 1969:314).¹³

And in the new Introduction he says:

A person does not have to set aside knowledge in order to make room for faith. Much rather one already has to believe something if one wants to speak of knowing and science at all (Stegmüller 1969:33).

He furthermore asserts that an ultimate certainty is required, for without it, it would be impossible even to start.¹⁴ He even reverses the classical

12 “Der Glaube an der Wissenschaft ist die beherrschende Religion unseres Zeitalters” (Von Weizsäcker 2002:106). On the next page he adds *technology* and speaks of the Siamese twins (science and technology) as the idol of our time (“Abgott unserer Zeit”).

13 From a biblical perspective it is clear that human understanding (“reason”) shares in the fall – just compare the reference to *sinful human understanding* in Colossians 2:18: *νοὸς τῆς σαρκός*. Every attempt to defend the reliability of human reason is dependent upon rational argument and is therefore circular. Clouser succinctly states: “For surely there can be no arguments or reasons for the reliability of reason that could avoid using reason to do so and thus beg the question!” (Clouser 2005:38).

14 “Irgendein absolutes Wissen muß es geben; ohne dieses könnten wir überhaupt nicht beginnen”; “Absolute Evidenz müssen wir schon ‘haben,’ d.h. wir müssen an sie bereits glauben, ...” (Stegmüller 1969:194). “Some form of an absolute knowledge must exist; without it we would not have been able to begin”; “We must already ‘possess’ absolute evidence, that is we must already believe in it.”

opposition of *faith* and *reason*: in science one *believes*, in religion one *knows* (or: one claims to know)!¹⁵

In order to avoid the deification of any part of creation the biblical distinction between God and creation must be respected. Ultimate commitments are seated in the central, direction-giving dimension of creation in which the antithesis between Christian and non-Christian convictions manifests itself. This starting-point commits theoretical thinking to a *non-reductionist ontology*, within theology and the other academic disciplines.

Of course a biblical perspective does not restrict evil to one or another domain of creation, but in the apostate direction of the human heart. Likewise salvation is also a *directional* matter. Surrogate ways to salvation always lead to an elevation of something within creation, accompanied by the depreciation of something else. This was already a basic characteristic of the ancient heresy of *gnosticism*. Idolizing or deifying something creational provides a point of departure for all forms of idolatry, which brings honour, meant for the Creator, to a creature. Wolters crisply highlights this structure-direction distinction:

It is in this feature of traditional philosophy, which I have called the 'metaphysical soteriology' (and which has been blunted but not completely eradicated, in most Christian philosophies) that its religious nature comes most clearly to the fore. In my view, it ought to be a mark of philosophy which seeks to be as radical as the Bible that it renounces this whole enterprise, and simply accepts, as a point of departure, that every creature of God is good, and that sin and salvation are matters of opposing religious direction, not of good and evil sectors of the created order. All aspects of created life and reality are in principle equally good, and all are in principle equally subject to perversion and renewal (Wolters 1981:10-11).

6. CONCLUDING REMARKS

The actual interplay of ultimate commitment and theoretical paradigms, mediated by a theoretical view of reality, exceeds the confines of this article in which the main focus was to highlight the inevitability of an ultimate commitment directing the theoretical commitment to particular views of reality – operative in all academic disciplines. A number of examples were chosen from different eras and different thinkers in order to elucidate the inevitability of theoretical and ultimate commitments. However, the

15 "... in der Wissenschaft wird geglaubt, in der Religion weiss man (oder: behauptet man, zu wissen)" (Stegmüller 1969:212).

mere commitment to a theoretical paradigm does not guarantee that justice will be done to the relevant factual states of affairs. Gould, for example, convincingly argued that the continuity postulate of the science ideal generated a gradualist view which turned out to be at odds with the dominant pattern of the paleontological record. This kind of factual criticism could be elaborated by immanent critique which may include, apart from contradictions, also antinomies, pointing beyond the intrinsic logic of any special science, to the unity and diversity of creation. Without exploring this point any further, it should be noted that the presence of conflicting standpoints both within the natural sciences and the humanities testifies to the fact that theoretical thought is in the grip of diverging ultimate commitments which give direction to an even greater multiplicity of theoretical commitments and orientations (see Strauss 2009:5-8).

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