Chapter 2.

OVERVIEW OF DOOYEWEERD'S PHILOSOPHY

The aim of this chapter is to introduce the thought of Herman Dooyeweerd, giving a basic overview of the main themes and ways of thinking that are relevant to understanding information systems. More detailed explanation and discussion of specific points of his philosophy will be offered where they are first needed in later chapters, where these basic themes will be used to formulate frameworks for understanding research and practice in several areas of IS. So the reader should not feel required to absorb reams of philosophy before addressing IS issues.

Not all of Dooyeweerd's thought is explained, only that needed for understanding information systems. But what is provided should be sufficient not only to explain the frameworks developed but also to enable the reader to find bases for critique within a Dooyeweerdian approach and to take this work further. Some links are made to other philosophic thinkers referred to by the IS communities.

For a more complete rendering of Dooyeweerd, see summaries by Kalsbeek [1975], Choi [2000] or Clouser [2005], or see Dooyeweerd's own four-volume magnum opus: A New Critique of Theoretical Thought [1984]. This was first published in 1953-5 and it extended an earlier similar work in published in Dutch [1935] by responding to criticisms thereof. We will also draw upon Dooyeweerd [1979], [1986] and [1999].

2.1 DOOYEWEERD'S APPROACH TO PHILOSOPHY

"The safest general characterization of the European philosophical tradition," wrote A N Whitehead [1929,p.53], "is that it consists of a series of footnotes to Plato." Dooyeweerd's thinking is very different from most of this European philosophical tradition. It is inspired by a very different 'ground-motive', outwith Greek thought.

But that does not mean the things his philosophy can tackle are different or unfamiliar. Most of what is within the horizon of extant philosophies is within Dooyeweerd's horizon; it is just that things are meaningful in a different way and, as will be seen, Dooyeweerd's horizon extends beyond many, to some issues in IS not easily addressed by conventional streams of philosophy. Just as a flower can be transplanted to a different soil, and grows differently, so do concepts, notions, theories and methodologies in the field of IS when transplanted to Dooyeweerd's philosophy. In the author's experience, Dooyeweerd is very fertile soil for IS issues.

Dooyeweerd was both a critical and positive philosopher. He deconstructed nearly 3000 years of Western thinking by exposing and questioning presuppositions, and yet he was then courageous enough to make a positive proposal that might itself be subjected to critique. His positive proposal is primarily concerned with the nature of things as we find, form or experience them in this world -- i.e. an ontology, including ontology of knowing. He was, in all places, self-critical and completely open about what his own presuppositions are.

2.2 DOOYEWEERD'S CRITICAL APPROACH

In his critical approach, which occupies most of Volume I of [Dooyeweerd, 1984], he undertook a deep critique of theoretical thought, especially as it is found in philosophy. If we want to use tools, we must first be sure they are suited to our task; Dooyeweerd was not convinced that theoretical thought as it has been understood and practised for the past 2,500 years is suited to understanding the complexity of the world as it presents itself to us in our everyday experience.

This is the first reason for interest in Dooyeweerd: he prepared tools suited to thinking about everyday experience. A note about terminology: Dooyeweerd used the words 'everyday', 'naïve' and 'pre-theoretical' almost synonymously as adjectives for thought, experience and attitude, and all three may often be equivalent to 'lifeworld', a word Dooyeweerd never used. In most places we will use 'everyday', but the others will be used occasionally instead, as synonyms, where style seems to require it.

2.2.1 Dooyeweerd's Immanent Critique

Dooyeweerd's main critical task was to determine what the conditions are that make a theoretical attitude in thought possible, distinct from an everyday attitude. From this, its capabilities and limits may be understood so that we do not expect too much of it. He reviewed how it has developed since the early Greek thinkers, showing how the theoretical attitude has always been given undue preference over the everyday attitude. Theoretical thought has always tended to narrow and distort our understanding of everyday experience. He argued that the main mistake was to assume theoretical thought is autonomous —that is, it can be used as a neutral foundation for, or judge of, everything else and the route to 'true' knowledge.

Dooyeweerd did not react against, nor reject, theoretical thought as such but explored the root of the problems philosophy has experienced over the past 3000 years. Dooyeweerd examined sympathetically ('immanently') the millennia of theoretical thinking, seeking to understand and expose its presuppositions and demonstrate that these presuppositions led to deep incoherency or other problems. Clouser [2005] clarifies three types of incoherency to which Dooyeweerd paid attention:

Self-referential incoherency, when a theory makes a claim that denies itself as a theory (for example, Freud's claim that every belief arises from unconscious emotional needs makes that claim a product of Freud's own needs, rendering it

useless as a theory);

- Self-assumptive incoherency, when a theory is incompatible with beliefs we must make for it to be true (for example, extreme materialism denies there is anything other than physicality, hence no logic nor language, hence no possibility of any theory);
- Self-performative incoherency: "a theory must be compatible with any state that would have to be true of a thinker, or any activity the thinker would have to perform, in order to have formulated the theory's claims." [Clouser, 2005,p.85]

Clouser explains [p.83] "Two of these incoherencies have been noticed by philosophers in the past, but are not yet taken seriously enough in my opinion. The third is relatively new, having been first defined and deployed by Herman Dooyeweerd about fifty years ago." It emphasises the centrality of the human person who is doing theoretical thinking. His thought prefigures much since then, including for example Polanyi's [1962] 'personal knowledge', Habermas' early [1972] insistence on 'human interests'.

Dooveweerd undertook extensive immanent critiques of thinkers from the early Greek period, through the mediaeval period, through Reformation, Renaissance and Enlightenment, then Kant and phenomenology in particular, through to the middle of the twentieth century, examining such types of incoherency. It was the third type especially that led him to the conclusion that philosophy, even socalled critical philosophy, was not critical enough [1999,p.6]:

"Neither Kant, the founder of the so-called critical transcendental philosophy, nor Edmund Husserl, the founder of modern phenomenology, who called his phenomenological philosophy 'the most radical critique of knowledge', have made the theoretical attitude of thought into a critical problem. Both of them started from the autonomy of theoretical thinking as an axiom which needs no further justification."

If Dooyeweerd is right this implies a deep incoherency at the root of such philosophy. Since much philosophical thinking in IS stems ultimately from this (via Heidegger, Gadamer, Habermas, Foucault and others) it may be that the foundations of philosophical thinking in IS are shaky. This is a second reason for interest in Dooyeweerd.

2.2.2 Dooyeweerd's Transcendental Critiques

In response, Dooyeweerd did not assume the autonomy of theoretical thinking. He did not even presuppose that it is possible to take a theoretical attitude, but first asked what is necessary in order to do so, by the method of transcendental critique.

It may be that Dooyeweerd has new insights to offer this debate, both because he worked this notion out in considerable detail and also because he came from a different direction (see below) and therefore might uncover issues overlooked by others.

Developing not just one but two transcendental critiques of

theoretical thought, which he called the first and second ways of critique and are explained by Choi [2000], he showed not only that theoretical thought can never be neutral, but that the non-neutrality is religious in nature (rather than, for example, arising from mere subjective opinion). By 'religious' he did not mean relating to any particular religion or creed, explaining [1984,I,p.57]:

"To the question, what is understood here by religion? I reply: the innate impulse of human selfhood to direct itself toward the true or toward a pretended absolute Origin of all temporal diversity of meaning, which it finds focused concentrically in itself."

In the first way of critique, he showed that our religious stance concerning an absolute Origin influences our pre-theoretical choice of Archimedean Point of reference from which to reflect on the diversity that we experience. But this was criticised as depending on a particular view of the role of philosophy. In his second way of critique, which made no such assumption, he argued that the human self chooses pre-theoretically how to synthesize our theoretical thinking with what is thought about, and the nature of this choice is religious, especially governed by the ground-motives. As Geertsema says of Dooyeweerd [2000,p.85],

"The main aim of his philosophy has always been to show how the religious starting point controls philosophical and scientific thought, both in relation to humanistic and Scholastic thinking and in relation to his own reformational conviction."

As Geertsema points out later [2000,p.99], "He is not satisfied with an argument that shows that in fact philosophy always has been influenced by religious convictions." Rather, "He wants to show that it cannot be otherwise, because it is part of the nature of philosophy or theoretical thought. For that reason he called his critical analysis a transcendental critique."

The problems in philosophy, Dooyeweerd argued, stem from failure to acknowledge its 'religious' root: theoretical thought is driven by presuppositions that are of a religious nature.

The extent to which he succeeded in the eyes of philosophers is still being debated, Geertsema says, but many of his insights are particularly useful in information systems, starting with the notion of ground-motives. This is a third reason for interest in Dooyeweerd.

2.3 THE RELIGIOUS ROOT OF PHILOSOPHICAL THOUGHT

In his study of Western thinking, Dooyeweerd found that four religious 'ground-motives' ('grondmotieven') have been the "spiritual driving force that acts as the absolutely central mainspring of human society" [Dooyeweerd, 1979,p.9]

2.3.1 Ground-Motives

Ground-motives are the "moving power or spirit at the very roots of man, who so captured works it out with fear and trembling, and curiosity" [Dooyeweerd, 1984,I,p.58]. They generate in us supratheoretical presuppositions that we make about the nature of reality, including theoretical thinking itself. Ground-motives encapsulate and determine all the branches of philosophy that a reflective society develops, including ontology, epistemology, anthropology, methodology and philosophical ethics, and also affect how we go about obtaining knowledge and solving problems.

"It [a ground motive] thus not only places an indelible stamp on the culture, science, and social structure of a given period but determines profoundly one's whole world view. If one cannot point to this kind of leading cultural power in society, a power that lends a clear direction to historical development, then a real crisis looms at the foundations of culture. Such a crisis is always accompanied by spiritual uprootedness." [Dooyeweerd, 1979,p.9]

He discussed four ground-motives that have driven Western thought over the past 2,500 years:

- the Greek ground-motive of form-matter (FMGM),
- the Judeo-Christian ground-motive of creation, fall and redemption (CFR),
- the mediaeval motive of nature-grace (NGGM), which arose from a synthesis of them and itself gave rise to
- the humanist ground-motive of nature-freedom (NFGM), within which arose the Science Ideal and the Personality Ideal as dialectically opposing poles,

These have interacted historically, as shown in Fig. 2.3.1.

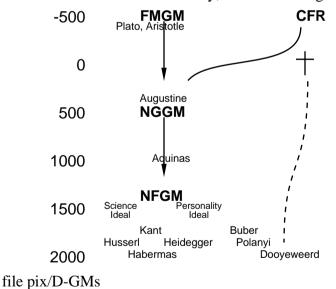


Figure 2.3.1. Development of Western Thought

Dooyeweerd did allow for others, himself mentioning that of the Zoroastrian religion [Dooyeweerd, 1979,p.112], and Choi [2000] discusses those of Korean thought, but he discussed these four in

some depth. Since they will be referred to throughout this work, they are briefly explained.

2.3.1.1 The Form-Matter Ground-Motive (FMGM)

The Form-Matter ground-motive presupposes that all being, occurrence (activity, behaviour), knowing, and good and evil may be explained in terms of form and matter. Dooyeweerd traced its origin in the coming together of the early Greek nature religions which deified a formless, cyclical stream of life and blind fate, Ananke, with the culture religion of form, measure and harmony.

The Form-Matter ground motive itself emerged as Greek thinking became more organised at the time Plato and Aristotle so that, for example, the being of a thing like a computer might be explained as matter (silicon, copper, etc.) in the form of a computer.

Form-Matter became a dualism, which elevated form (eternal, spiritual, reliable, pure) over matter (temporal, material, decaying, changing, impure). Form was seen as Good and matter, Evil (or, for those who enjoyed carousing, the other way round!), and the remedy was to rid one's life of as much matter as possible. Philosophers, as experts in Form should rule the State. We still feel its influence today in the mind-body dualism, in the assumed superiority of working with the mind over working with the hands, and also in the assumption of the autonomy of theoretical thought.

But it has inherent problems for understanding IS. Not only does it tend, ultimately, to reduce everyday experience to a theory, but everyday thinking as such was dismissed as being untutored. More specifically, it makes it difficult to resolve the artificial intelligence (AI) question of how computers compare with humans (see chapter 5). Dooyeweerd argued [1984,II:417ff.] that under FMGM universality and individuality cannot be reconciled -- which is important for creating general technological resources as discussed in chapter 7.

2.3.1.2 The Creation-Fall-Redemption Ground-Motive (CFR)

The Creation-Fall-Redemption ground-motive was held by culture that had been informed by the Jewish and Christian Scriptures, and emerged from the Biblical idea that the Cosmos is separate from, created by, and depends on, a Divine being, God. In this view, the Divine is personal and good, and so all reality is intrinsically good, and may be enjoyed. In particular, both matter and form are Good, both dynamic and static, both body and soul, both hand-work and mind-work. Reliability is no longer founded on Form, but on a covenant-keeping God. Evil is located, not in one or other half of reality, but in the heart of humankind; not in the structure of the cosmos but in the response that we make within it. The remedy for evil is that the Divine pro-actively steps in to save the Creation (such as the various rescues experienced by the people of Israel, but supremely by Jesus Christ). Christian versions add that the Divine indwells human beings to make them a 'new creation'.

The form-matter opposition is annulled, as is the mind-body dualism. Universality and individuality are reconciled, displaying "fullness and splendour" [Dooyeweerd, 1984,II:418].

The influence of the CFR ground motive is found more in everyday life than in academic life. Its lack of influence in academic circles is partly because of the long influence, since 500 AD, of the NGGM (see below), which held that faith and reason are in separate compartments, and so faith has little part to play in genuine academic discourse except to pronounce dogma. Therefore attempts to work out a CFR-based theoretical approach have been sparse.

CFR is the ground motive from which Dooyeweerd worked, Polanyi [1962] also explicitly worked from it, and Friesen [2003] suggests that von Baader started from the same motive, but neither worked it out in as much detail as Dooyeweerd did.

2.3.1.3 The Nature-Grace Ground-Motive (NGGM)

The Nature-Grace ground-motive (NGGM) was a synthesis of the Matter-Form and Creation-Fall-Redemption ground motives, which emerged around 500 AD when European Christian thinkers recognised the glories of ancient Greece. Grace refers to the realm of the sacred and nature to the secular. To some extent one might see nature and grace as 'Christened' versions of matter and form, but reason, which used to be in form, became part of the nature realm; the type of knowing that we find in the grace realm is faith. Theology became the 'queen of the sciences'. Originally a duality, it became a dualism in which nature was seen to be a hindrance to grace and even inimical to it. This led to that oppression and injustice that characterized the pre-Reformation period in Europe.

As a philosopher, Dooyeweerd saw such problems as an inevitable result of the dualistic divorcing of secular from sacred. In particular, it elevated religion into a separate sphere so that religion had no relevance to ordinary life. Ordinary life became seen as of lower value, a necessary evil and, as with FMGM, not worthy of respect or study. Another was that it separated natural reality from humankind and made God the ultimate cause and end of it, independent of humankind [Dooyeweerd, 1984,II,p.52-3]. This opened the way to the humanistic notion that humankind could do with Nature whatever it wished.

As Nature became dualisticaly divorced from Grace, the Church became ever more powerful and religious oppression became rife, until reactions occurred in the Renaissance and Reformation. The Reformation believed that the root of the problem was the synthesis that gave rise to NGGM in the first place, and sought to return to Sola Scriptura, while the Renaissance saw the root of the problem more in religion itself, and from this emerged the Nature-Freedom ground motive.

2.3.1.4 The Nature-Freedom Ground-Motive (NFGM)

The Nature-Freedom ground-motive (NFGM) emerged from the

Nature-Grace motive, around the time of the Renaissance and Reformation, with God being replaced by the free human ego and the Nature pole, its opposite, was redefined as the non-free and non-human. 'Nature' refers to that which is determined, to mechanism, control, causality, rationality, and what Dooyeweerd calls the Ideal of Science, while Freedom refers to the Ideal of Personality, the human ego, with human freedom and will, with creativity, with art, and so on.

Dooyeweerd traced its effects on Western thought and culture in pages 148 - 206 of [1979]. What follows is a highly simplified picture, which even so shows many intertwined strands, all of which are driven by an antinomy that cannot be resolved. An early expression of Freedom was the desire for emancipation from church hegemony and feudalism, leading eventually to such things as the French Revolution, which then became absolutist (Nature pole). Another was a desire for freedom from natural disasters and diseases, to which end the natural sciences were co-opted. Science was immensely successful and, as Dooyeweerd [1979,p.150] put it:

"Modern man saw 'nature' as an expansive arena for the exploration of his free personality, as a field of infinite possibilities in which the sovereignty of human personality must be revealed by a complete mastery of the phenomena of nature."

But 0p.153]

"When it became apparent that science determined all or reality as a flawless chain of cause and effect, it was clear that nothing in reality offered a place for human freedom. ... Nature and freedom, science ideal and personality ideal -- they became enemies. ... Humanism had no choice but to assign religious priority or primacy to one or the other."

This has led to many splits, including material body versus thinking soul and autonomous thinking subject versus nonautonomous object (Descartes), being versus morality (Hume), science versus faith, public versus private and thought versus thing (Kant), and so on, including variants in various fields like law, politics and sociology examined by Dooyeweerd. But everyday experience does not recognise these splits, and the human spirit eventually reacts against them. Hobbes reacted against Descartes into materialism, Marx against the being-morals split into absolutism, Husserl against the thought-thing split into phenomenology, Heidegger against the subject-object split into existentialism, and so on. But then further splits would appear, because the NFGM cannot allow Nature and Freedom to integrate. According to Dooyeweerd [Dooyeweerd, 1984,I,p.64-65], Hegel tried "think together" the two poles but ultimately failed because "this antinomy cannot be resolved". (For a possible Dooyeweerdian reinterpretation of Hegel, see Basden [1999].) The influence of NFGM can also be seen in dialectical movements from rationalism to irrationalism and from postivism to constructivism.

The problems of NFGM, at least from a Dooyeweerdian perspective, will become apparent throughout this work. It is NFGM that holds sway today and most philosophic thought appealed to in IS

is a product of NFGM.

Bit it is important to avoid assuming any of the ground-motive presuppositions are a 'truth'. That control and freedom are fundamentally incompatible is a presupposition, not a truth. As Chesterton once aptly pointed out [1908,p.35], "The ordinary man ... has always believed that there was such a thing as fate, but such a thing as free will also." That is the lifeworld view, which the NFGM arrogantly denies and leads us to attempt to explain away, usually in terms of reductionism or mysticism. Dooyeweerd rejected such an approach and offered philosophical grounds to support Chesterton's lifeworld observation by arguing that the NFGM is merely a pretheoretical presupposition, and he proposed a deeper understanding in which both control and freedom can co-exist. This is a fourth reason for interest in Dooyeweerd.

2.3.2 Effect of Ground-Motives on Understanding Information Systems

A ground-motive affects the thinking at a deep level, determining not so much the outcome of debates and research as the very ground on which these take place. For example, as will be discussed in chapter 5, the AI question of similarity between computer and human is different under different ground-motives:

- # RMGM: as physical versus mental,
- # NGGM: as sacred human spirit versus secular machine,
- # NFGM: as determined versus non-determined behaviour,
- # CFR: as fulfilling God's cosmic purposes, which are spoiled by humanity.

In considering the nature of computers we need to bring form and matter together, but the FMGM prevents us doing so. In considering the information society we need to bring sacred and secular together, but the NGGM prevents us doing so. In considering IS development and usage we need to bring control and freedom together, but the NFGM prevents us doing so. This is the reason the CFR, the only non-dualistic ground-motive of the four, is useful as a basis for the development of frameworks for understanding information systems in all these areas. That Dooyeweerd worked out philosophical implications of CFR is a fifth reason for interest in Dooyeweerd.

These ground-motives are not unique to Dooyeweerd, though part of Dooyeweerd's contribution was to see them as a spiritual driving force and to show how they relate to each other. Vollenhoven [1950] spoke of three periods of Western thinking: pre-synthesis, synthesis and post-synthesis, in which the synthesis is between Greek and Hebrew thought. Heidegger, in relation to the synthesis that led to NGGM, spoke of "matter and form borrowed from an alien philosophy" [1971,p.29]. Habermas seems to have understood something similar when he speaks [2002,p.157] of synthesis between 'Athens' and 'Jerusalem', and has remarked [1992,p.12]:

"I do not believe that we, as Europeans, can seriously understand concepts like morality and ethical life, persons and individuality, or freedom and

emancipation, without appropriating the substance of the Judeo-Christian understanding of history in terms of salvation. And these concepts are, perhaps, nearer to our hearts than the conceptual resources of Platonic thought, centering on order and revolving around the cathartic intuition of ideas."

Nearer our hearts, perhaps, but not nearer our minds. Dooyeweerd wanted to change this, and understand the impact of the religious root of humanity -- whether Judeo-Christian or any other -- on theoretical thought itself. He argued that even the so-called Christian mediaeval philosophies, e.g. of Aquinas, were not based on creation, fall and redemption, but rather presupposed a dialectic between nature and grace, or sacred and secular.

2.3.3 Immanence-Standpoint

The three dualistic ground-motives, FMGM, NGGM, NFGM, put theoretical thinking into dialectical swings while they are in force, and it never comes to rest. Through his critical survey of theoretical thought Dooyeweerd found that underneath these three ground-motives is what he called the immanence-standpoint or immanence-philosophy. This presupposes that the basic Principle that explains and generates all else may be sought within temporal reality itself. Clouser [2005] explains this more clearly than Dooyeweerd does.

The strands of philosophy that we, in the 21st century, believe to be radically different -- such as positivism and subjectivism -- are all in the same camp, to Dooyeweerd, branches of immanence-philosophy: the only difference between them lying in what each takes to be self-dependent. For example, [Dooyeweerd, 1984,I,p.13]:

"The age-old development of immanence-philosophy displays the most divergent nuances. It varies from metaphysical rationalism to modern logical positivism and the irrationalist philosophy of life. It is disclosed also in the form of modern existentialism. The latter has broken with the Cartesian (rationalistic) 'cogito' as Archimedean point and has replaced it by existential thought, conceived of in an immanent subjectivistic historical sense."

Then "Immanence-philosophy in all its nuances stands or falls with the dogma of the autonomy of theoretical thought. ... Not only traditional metaphysics, but also Kantian epistemology, modern phenomenology and phenomenological ontology in the style of Nicolai Hartmann continued in this respect to be involved in a theoretical dogmatism." [Dooyeweerd, 1984,I,p.35] Dooyeweerd also finds it in such thinkers as Heidegger who, though he "vehemently turns on [opposes] the old metaphysical equation of being and non-differentiated (rational) unity" [Dooyeweerd, 1984,II,p.22], nevertheless "moves in the paths of immanence philosophy; his Archimedean point is in 'existential thought', thus making the 'transcendental ego' sovereign" [Dooyeweerd, 1984,IV,p.88].

Dooyeweerd's conclusion, expressed in [Dooyeweerd, 1984,III,p.169] was:

"Our general transcendental critique of theoretical thought has brought to light

that the philosophical immanence-standpoint can only result in absolutizations of specific modal aspects of human experience. Similarly we may establish that on this standpoint every total view of human society is bound to absolutizations both of specific modal aspects and of specific types of individual totality."

The importance here is that most philosophers referred to in IS research, in all areas, are of the immanence-standpoint.

Dooyeweerd argued that the immanence-standpoint inevitably results in a number of problems, some of which we note here because they affect our ability to formulate frameworks for understanding information systems, and leave the interested reader to explore further:

- It prevents a truly sensitive approach to understanding the lifeworld or everyday experience, because it forces us to take one sphere of meaning as our point of reference for all the others, thereby privileging it so that all others are reduced to it and not given their due [Dooyeweerd, 1984,I,p.15].
- By the same token, it leads to unmethodical treatment of the coherence between the normative aspects [Dooyeweerd, 1984,II,p.49], making a genuinely interdisciplinary research extremely difficult.
- It is the source of many '-isms' [Dooyeweerd, 1984,I,p.46].
- Meaning is distinguished from reality in immanencephilosophy [Dooyeweerd, 1984,II,p.25,6]. But in everyday experience, especially in IS usage, meaning and reality are intertwined.
- Immanence philosophy has never posed the problem of the relationship between different spheres of meaning of our experience [1984,II:49]. So any frameworks for understanding IS would be forced to rely on arbitrary speculations. (Arguably, systems theory is now attempting this via emergence, but it is not yet clear that it can escape speculation.)
- Immanence-philosophy is incapable of positing the problem of concept formation correctly because of "the disturbing influence on the formation of concepts exercised by the form-matter scheme, or by the disruption of the integral empirical reality into a noumenon and a phenomenon and by the reduction of this reality to a merely 'physico-psychical' world." [Dooyeweerd, 1984,II,p.50] (For example, this leads to problems in Object-orientation). So any concepts included in a framework are likely to be out of kilter with everyday life at some point.

Dooyeweerd argued that such problems are inherent in the very nature of the immanence-standpoint itself, and cannot be overcome from within that standpoint by merely shifting to a different immanence philosophy or to a different pole of the current groundmotive. Rather, a new standpoint must be explored. This is a sixth reason for interest in Dooyeweerd: he did so.

2.3.4 Transcendence Standpoint

Dooyeweerd adopted a transcendence standpoint, which locates the basic Principle (which Clouser calls the Divine) outwith temporal reality. One (perhaps the only) ground-motive that makes this presupposition is the Creation-Fall-Redemption ground-motive. He was not alone in arguing for this transcendence presupposition: Martin Buber and Michael Polanyi shared it but did not work it out in the way Dooyeweerd did.

As a consequence, he was able to offer a very different positive philosophy from most others, which enables us to understand IS/ICT (and in fact all issues) in a different way. This is a seventh reason for interest in Dooyeweerd.

The positive side of his philosophy is sometimes called Cosmononic Philosophy (law of cosmos). He also sometimes referred to his philosophy as a 'Christian philosophy'. This should not be misunderstood as being driven by Christian theology or anti-secular reaction, nor as requiring personal Christian commitment in those who adopt it; see 'Religious Root' below.

2.4 THE DIFFERENT FLAVOUR OF DOOYEWEERD'S APPROACH

No theoretical thinking is without presuppositions. Dooyeweerd himself openly began from the CFR ground-motive, with its transcendence-standpoint, and sought to work out a number of fundamental implications thereof. Dooyeweerd's positive philosophy has several major parts and several secondary parts which he derived from them.

Part I of Volume I of Dooyeweerd [1984] is devoted to 'The general theory of the modal spheres'. This shows how modal spheres (or 'aspects') account for diversity and coherence, being and doing, normativity, etc. The discussion, which is always related to the works of other thinkers from the early Greeks, all the way through to Husserl and Heidegger, ranges widely through many spheres of human experience, from mathematics, physics, biology, through psychology, social science, to art, law, ethics, and theology. There is a lengthy discourse on how the spheres anticipate each other, and on their analogical coherence, wrapped round a theory of history. Dooyeweerd's radically interesting non-Cartesian subject-object relation is expounded, with an introduction to the problem of individuality. Much of this, relevant to IS, is summarised in this and the next chapter.

In Part II of Volume II, Dooyeweerd discussed the problem of knowledge and epistemology. First he argued that immanence philosophy has not properly posed the problem of knowledge. He discusses theoretical knowledge, intuition, the horizon of experience, and 'truth'. He offers considerable critiques of Kant and Heidegger especially. Some of his theory of knowledge, especially relevant to IS development, is found in chapter 3.

Volume III comprises a comprehensive theory of entities. "As far as I know," concluded Dooyeweerd [1984,III,p.53], after a review of attempts to understand thingness from Greek metaphysics through to the 20th century, "immanence philosophy, including phenomenology, has never analysed the structure of a thing as given in naïve experience." He therefore formulated a notion of 'thing' as multi-layered, complex, in relationship with other 'things'. He then applied this theory to understand things as widely different as the linden tree in front of his window, a sculpture, music, utensils, planks of wood, social institutions, and the State. Some of this is summarised in chapter 3.

Volume IV is an encyclopaedic index to the other three volumes.

Before his ideas are summarised it is useful to understand something of the different flavour of Dooyeweerd's thought compared with other strands.

2.4.1 Starting Point 1: Religious Root and Destiny of IS

It has been long assumed that philosophy and science should be carried out without reference to God; this has especially been so in information systems. This is not to deny God's existence, so much as to declare God as unnecessary to philosophy because theoretical thinking has been assumed to be autonomous. But this is now being questioned. The eminent systems thinker, C. West Churchman, once said "'Does God exist?' is the most important question in systems thinking" [1987,p.139].

Dooyeweerd believed it to be important to all philosophy. because if God exists, in the sense of his Existing having an impact on the content of our philosophy, then that should be taken into account. He rejected treating the Divine as an object about which to philosophize, such as is done by treating God as a First Cause, or by formulating Scholastic (NGGM) arguments for God's existence. Rather he sought to work out the philosophical implications of what it means that the cosmos is Created rather than 'just is'. Clouser clarifies Dooyeweerd's position, [2005,p.342] "Our claim is not that all theories are produced or forced on us by some divinity belief ... The claim is that the nature of a theory's postulates is always interpreted in the light of what is presupposed as divine." The nature of frameworks for understanding is thus influenced by our religious presuppositions and this affects, in turn, our research and practice. One, albeit rather humorous, example of the religious root of thought is the 'holy wars' in which groups of computer scientists engage regarding what is the best operating system or text editor.

Dooyeweerd's own religious background was that of Dutch Calvinism, and this author detects also some ideas from Celtic Christianity, both of which entered that area of Europe at different points in history. Both streams emphasise the importance of the 'secular', 'everyday' side of life in God's sight, and were thus more in line with Creation, Fall and Redemption rather than Nature-Grace. (Note: Dooyeweerd's creation presupposition should not be confused

with fundamentalist Creationism. Clouser [2005] shows how fundamentalism is incompatible with Dooyeweerd's thought.) But Dooyeweerd distinguished philosophy from theology and tried to avoid using the latter's way of thinking, so that his philosophical arguments could be accepted by people of any faith but without denying the importance of one's faith stance. This is why his ideas may be adopted by those who do not share his Christian faith. For example, Witte [1986] cites P.B. Cliteur, Professor of Philosophy at the Technical University of Delft and president of the Dutch Humanist League, and thus not in agreement with Dooyeweerd's own Christian principles, as saying:

"Herman Dooyeweerd is undoubtedly the most formidable Dutch philosopher of the 20th century ... As a humanist I have always looked at my own tradition in search for similar examples. They simply don't exist. Of course, humanists too wrote important books, but in the case of Herman Dooyeweerd we are justified in speaking about a philosopher of international repute."

This is an eighth reason why Dooyeweerd is of interest here. Some examples of the kinds of philosophical (not theological) implications of presupposition of CFR compared with those of immanence philosophy, are set out in Table 2.4.1 (Dooyeweerd's own longer and philosophically-oriented comparison is found in [1984,I,p.502 ff.]). If they are valid, then these may be taken as reasons for IS researchers and practitioners to take the CFR ground-motive seriously; some will be referred to in formulating frameworks for understanding IS.

Table 2.4.1 Philosophical implications of CFR

CFR	Immanence Philosophy
The whole cosmos has dignity	Half is Good, the other half Evil or inferior
Nothing in cosmos is absolute (including Reason)	One aspect is absolute, self-dependent
Diversity coheres. Coherence is diverse.	Focus either on diversity or coherence
Self and world cohere with each other	Kantian gulf between Self and world
The foundation of all in cosmos is cosmic meaning-and-law	Foundation is either (a) Being (process (b) Autonomous ego
World reveals itself	Can never know 'Ding an sich'
We can let everyday experience speak to us	Everyday experience is reduced to a theory
Theory has religious root	Theoretical thought is absolute
Hope and Destiiny	'Towards death' (Heidegger)

file tables/D-CFRvImmPhil

The author has found some of these implications of CFR helpful in stimulating practical discourse in both research and practice. By keeping in mind the alternative possible ways of seeing things under CFR, it is possible to pose questions that lead participants to question the usual (immanence-standpoint) assumptions.

But, for formulating frameworks for understanding, the issue of which religious stance is held must be separated from that of the religious root of all we do, which cannot be escaped and affects all at a deep level. Dooyeweerd's insights enable us to differentiate four ways of addressing the religious root of IS directly, with the deepest last:

- The faith aspect of what we do and are (see theory of aspects) helps account not only for traditional religious experience but also for the tenacity with which we commit to, and defend, positions.
- Life-and-world-views (Weltanschauungen) and perspectives to which a group of people are committed often centred on an aspect; this helps us understand and analyse tenaciously-held perspectives in IS as well as elsewhere. See later.
- Presuppositions that are religious in nature, such as groundmotives and the immanence presupposition, which underlie the way we assume reality to be, will provide insight into why some of the debates in IS have taken the shape they have.
- The orientation of the human self towards the true Absolute. or a pretend one, can help us understand religious dysfunction, in terms of absolutization, and its possible remedy.

These are explained in more detail later.

Religious root implies Destiny. That is, if all in the cosmos is religious (in whatever way we allow) then it has a Destiny as well an Origin. More specifically, humanity has a Destiny, a mandate to which it is responsible. And all it generates or produces as part of that mandate, such as ICT, has its own Destiny. Destiny implies meaningfulness of all, and this is reflected in the primacy of Meaning (see below). Dooyeweerd, under CFR, held the Destiny to be Completeness in Jesus Christ, and this pervaded all he wrote. Though this author shares Dooyeweerd's belief, he has tried to allow for other possible destinies. Nevertheless, the general notion of Destiny (and meaningfulness) will pervade all in this work, and will be specifically referred to again in chapter 8.

(Some readers might detect an echo of this in Aristotle's notion of final cause, but Dooyeweerd's notion of Destiny is richer and allows for immense diversity, freedom and an open future, as will become plain later.)

Dooyeweerd's positive philosophy may be seen as an attempt to work out the philosophical, rather than theological, implications of such a stance. He particularly wanted to avoid theology dominating philosophy or imposing on philosophy constraints that philosophy itself would not recognise as valid. This was one more reason he undertook a transcendental critique of theoretical thought.

2.4.2 Starting Point 2: Everyday Experience

For most of its history, the everyday, pre-theoretical (or 'naïve') attitude has been deemed inferior to the theoretical or scientific attitude. Sometimes it has been seen as something to escape: "Given the difficulty of doing philosophy (i.e. escaping from the natural attitude which constantly seeks to reassert itself) ..." [Moran, 2000,p.146]. Often it has been equated with (reduced to) sensory functioning, as in Bertrand Russell. Where it has been deemed a topic worthy of reflection, it has often been seen through the lens of a theory or theoretical framework, such as in Adam et. al. [2006], who expressly state "we draw upon the theoretical constructs of the gender and technology literature to theorize the relationship between gender and technical skill ..."

But to Dooyeweerd, the 'natural attitude' (also called 'everyday', 'naïve' and 'pre-theoretical') is not only important and worthy of philosophical attention, but a vital starting point and everyday life should be reflected upon in a way that does not theorize it but listens sensitively to it as it presents itself to us -- though not uncritically. So he opened Volume I of his magnum opus [1984] with:

"If I consider reality as it is given in the naïve pre-theoretical experience, ..."

Throughout his work, in developing both his critical and his positive arguments, he kept on returning to everyday experience not as a source of individual empirical facts but rather as a corrective that keeps on resetting our direction of thought. For example:

"To all of these speculative misunderstandings {made by philosophers,} naïve experience implicitly takes exception by persisting in its pre-theoretical conception of things, events and social relationships." [1984,III,p.28]

Dooyeweerd believed that philosophy (including phenomenology) has fundamentally misunderstood the nature of everyday (lifeworld) experience. The main thing he drew from everyday experience agree with the philosophical implications of createdness: meaning, diversity and coherence. It is for this reason he continued his opening [1984,I,p.3] with

"... then the first thing that strikes me, is the original indissoluble interrelation ..."

By this he was not making a dogmatic statement, but rather inviting the reader to recognise a similar coherence in the lifeworld. What Dooyeweerd says about everyday experience and attitude makes an important contribution to extant discussion of the lifeworld. This relates to the first reason for interest in Dooyeweerd. It is important to understanding IS and will be summarised later, where it is also compared with the phenomenological notion of lifeworld.

2.4.3 Being as Meaning

Echoing the Greek thinkers, Gaines [1997] says "The most

fundamental properties which we impute to any system are its existence and persistence over time." As Heidegger [1962,p.22-3] pointed out, the presupposition, Being, entails that we treat the concept of Being as the "most universal", as indefinable, and as self-evident. He then tried to question and define it, because he did not presuppose it.

And neither should we, because for some things in IS existence is far from self-evident The mouse of my computer seems very obviously to 'exist', but does the mouse pointer on my screen 'exist' in the same way? What about the subroutine printResults()? What about fictional characters like Gandalf?

While Heidegger tried to understand Being in terms of situatedness in a context among other things (Dasein, 'here-being'), Dooyeweerd went further, and held that Being must be understood as Meaning [1984,I,p.4]:

"Meaning is the being of all that has been created and the nature even of our selfhood. It has a religious root and a divine origin."

Things 'exist' by virtue of their meaningfulness in certain different ways. Things do not have meaning, as a kind of property, they are meaning. "The horizon of experience is not a subjective cadre within which reality appears to us only in a phenomenal shape ... and behind which the fundamental inexperienceable dimensions of some 'thing in itself' ('Ding an sich') are situated." wrote Dooyeweerd [1984,II,p.548] "It is rather the a priori meaning structure of our cosmos itself in its dependence on the central religious sphere of the creation, and in subjection to the Divine Origin of all things." This use of the word 'meaning' is akin to when we speak of 'the meaning of life': as something that transcends us and refers beyond to something higher.

Dooyeweerd's use of 'meaning' is explained in the Appendix of Dooyeweerd [1999]:

"Meaning -- Dooyeweerd uses the word 'meaning' in an unusual sense. By it he means the referential, non-self-sufficient character of created reality in that it points beyond itself to God as Origin. Dooyeweerd stresses that reality is meaning in this sense and that, therefore, it does not have meaning. ... 'Meaning' becomes almost a synonym for 'reality'."

Meaning is 'referring beyond' [Dooyeweerd, 1984,I,p.110]. If everything is meaning, then every single thing (or event) in the cosmos is interconnected, and nothing can be understood 'in itself', and the whole interconnected cosmos itself is meaning, referring ultimately to its Origin. This is a philosophical implication of CFR. Heidegger's Dasein might, of course, be seen as a kind of 'referring beyond', but he makes that depend on, and presuppose, relatedness to the world, whereas to Dooyeweerd it was the other way round, as will be explained later: relatedness and being itself depend on, and presuppose, referring beyond.

In this work various uses of the word 'meaning' will be differentiated (these are not terms that Dooyeweerd used, but are

necessary in formulating frameworks):

- # Cosmic meaning: This is Dooyeweerd's use, by which the very existence and occurrence of all in the cosmos is meaning and is made possible by meaning. Dooyeweerd held that cosmic meaning transcends us and makes all concrete reality possible, including the types of meaning that follow.
- # Attributed or ascribed meaning: We subjectively attribute concrete meaning to things; it might not be conceptualized. This is how Descartes, Weber, Hoffman etc. used it, and how it is used in phenomenology and subjectivism.
- # Lingual or symbolised meaning: This refers to the meaning-content of symbols in discourse (involving speech, writing, graphics, gestures, etc.). It is how thinkers influenced by the linguistic turn, such as Habermas and Foucault use 'meaning'.
- # Conceptualized meaning: We form a concept of meaning, e.g. that of justice (cosmic meaning). Whenever we are aware of meaning we have already conceptualized it. Lack of awareness of meaning does not imply meaninglessness, it is simply that it has not been conceptualized.

When using the word 'meaning' is used on its own it will usually be clear from the context which is meant, and if not, it will refer to cosmic meaning. Attributed and lingual meaning always have an echo of cosmic meaning because they refer to it.

Dooyeweerd's emphasis on meaning is a ninth reasons why his thought is of interest.

2.4.4 Law and Subject Sides

This cosmic meaning, which transcends us and applies to all, has the character of law. In contrast to Peirce [1898], who said "the first germ of law was an entity", Dooyeweerd held that entity emerges from law, and is subject to a transcendent, a priori law-framework.

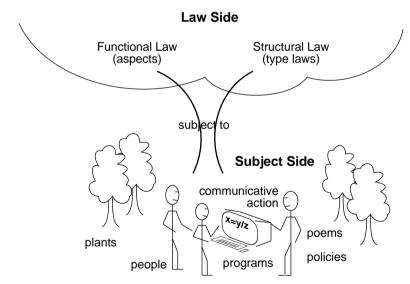
This cosmic law must be sharply distinguished from concrete rules, social norms, laws, and the like. Cosmic law does not constrain so much as enable, and it has the character of promise rather than authoritarian demand: contrast "Keep to the syntax of the language you use!" with "If you keep to the syntax of the language you use, then people will understand you better." For this reason, we will often refer to this kind of law as 'law-promise'. Law-promise is so shaped as to direct us (everything in the cosmos) towards what is meaningful. This transcendence of cosmic law will be useful in understanding impacts of IS in use, among other things.

Thus cosmic law is cosmic meaning is cosmic law. Therefore the phrases 'cosmic meaning', 'cosmic law', 'meaning-and-law', 'law-promise' and (see later) 'aspectual law' and 'aspectual meaning' will

be used interchangeably, depending on what is to be emphasised at the time.

Law presupposes subjects (things that are subject to it). What is subject to cosmic law is the cosmos and all in it: all of concrete temporal reality. Temporal reality has two sides: the law side and the subject side. The subject side, also called entity side or fact side, comprises all that exists or occurs in the cosmos, as concrete reality, including concrete meanings that are ascriptions we make, and includes all our experience, past, present, future and potential. The law side comprises the framework within which all can exist or happen. Note that law and subject side are not two worlds but two sides of one world [Dooyeweerd, 1984,II,p.44], but it will be found very useful to separate them conceptually in formulating frameworks for understanding IS. Philosophically, it helps reconcile universality and individuality, it helps explain why there might be law that pertains but which itself cannot ever be fully known.

Dooyeweerd differentiated two ways in which things are subject to law: firstly, in their functioning and, secondly, in their structure. This means there are two types of cosmic law, what we call aspectual law (such as the law of gravity or the laws of economics), which guides functioning (or activity) of things and is expounded in the theory of modal spheres and of knowing, and type laws, which guide the structure of things and which is expounded in the theory of individuality structures. This is shown in Fig. 2.4.4. This author has always been more interested in aspectual law and less in type laws, and in this way his view of Dooyeweerd might be one-sided. Even so, type laws depend on and presuppose aspectual law.



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Figure 2.4.4. Law and subject side

The novel way in which Dooyeweerd understood law and subject helps untangle many knotty issues in IS; this is a tenth reason why he of interest.

2.4.5 Escaping Descartes and Kant

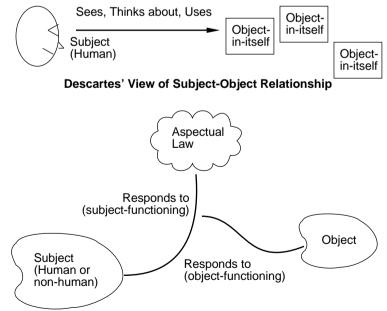
Wolters suggests [1985,p.17] "the law-subject correlation ... bears new and important philosophical fruit, pointing a way which can break through such dilemmas as natural law versus historicism and substance versus function." Western thought has been deeply influenced by Descartes' view of subject and object, either accepting it uncritically, or reacting against it and thereby mistakenly

acknowledging its presumed right to set the agenda for debate (as does e.g. existentialist or feminist discourse in IS).

But Dooyeweerd offers a radical alternative to all these views, in the form of a fundamentally different notion of subject and object.

- # Subject: To be an active subject (an agent) is constituted in being subject to law; there is no other way in which we can be active agents than in being subject to law because it is the spheres of meaning-and-law that enable this. Dooyeweerd brings together the two meanings of the English word, subject.
- # Object: To function as object is to be involved in some entity's subject-functioning.

While Descartes had a human subject thinking about (or acting upon) an external object, with separation between them, Dooyeweerd has a subject responding to aspectual law-promise and something else responds to that subject-functioning as object. To Dooyeweerd there is no such thing as object-in-itself, only object-to-subject. To us, steeped in the Cartesian tradition, object seems synonymous to this, but not to Dooyeweerd. This will be important in understanding what a computer 'is'. See Fig. 2.4.5.1.



Dooyeweerd's Notion of Subject-Law-Object Relationships

Figure 2.4.5.1. The relationships between subject, law (promise) and object

His approach provides a sound foundation for subject-subject relations, which will be found useful in several places. It throws fresh light on artificial intelligence issues (chapter 5), provides philosophical underpinning for Latour's notion of symmetry between human and non-human 'actants' (chapter 4), and can contribute to feminist thought (chapter 8). Dooyeweerd's non-Cartesian reinterpretation of subject and object is an eleventh reason for interest in his philosophy.

Whereas Heidegger tried to overcome the Cartesian divide by destroying the distinction between subject and object, Dooyeweerd did it by redefining both in relation to law. Many of Heidegger's ideas (Dasein, 'worlding', being-in-the-world, etc.) find echoes in Dooyeweerd's thought, but Heidegger, "mov{ing} in the paths of immanence philosophy" [Dooyeweerd, 1984,IV,p.88], as mentioned earlier, could not conceive of a distinction between law and subject sides, and seems to have been unable to complete the quest that he began in his Being and Time [Heidegger, 1962]. It may be that Dooyeweerd offers a way to achieve what Heidegger sought, including a new notion of Time (which portion of Dooyeweerd's philosophy is not examined here, because it is not needed for IS).

Kant's 'copernican revolution' which put the human mind at the centre, made it impossible for the world to be known if the human knower is free (a shift from the nature to the freedom pole of NFGM). This drove thought and thing apart, and the various turns of philosophy have been trying to solve the problems this has caused ever since. Some of these problems are outlined in chapter 3. But the different ground-motive of Dooyeweerd's approach leads to a different understanding of the relationship between knower and known-thing, and between ontology and epistemology. We are part of the reality we observe and experience because all is subject to the same framework of law-and-meaning. It underpins and leads to not only the non-neutrality of knowledge and non-absoluteness of reason but also a knowledge-friendly cosmos, which may be truly known even if never perfectly. See section on knowing in chapter 3.

'Is' and 'Ought' (being and normativity) were also driven apart by Kant, having been separated explicitly by Hume. This is problematic because in the everyday attitude, built into the question of what an information system (or anything else) is, is the question of what is a 'good' or 'true' one, and what it ought to be. That this was so was recognised by Plato and Aristotle, but NGGM and NFGM both separate being from normativity. But they are brought back together by Dooyeweerd because the cosmic meaning that gives rise to 'Is' is exactly the cosmic law that gives rise to 'Ought'. The provides a philosophical basis for restoring the normative implications to information technology, and is a twelfth reason for interest in Dooyeweerd.

As the human and social aspects of IS have been recognised, various post-Kantian 'turns' in philosophy have been referred to because they seem to address issues that present themselves in the everyday experience of IS. The author believes that Dooyeweerd's

approach might make these turns less necessary to us because Dooyeweerd provides a different way of tackling the same issues. No longer is a phenomenological turn necessary to tackle the relationship between theory and practice or science and lifeworld, no longer is an existential turn necessary to understand situatedness of being, no longer is a linguistic turn necessary in order to understand intersubjective meaning and social life, no longer is a critical turn necessary in order to reinstate normativity. Dooyeweerd himself discussed the first two turns in depth, but not the latter two. (A substantial engagement between Dooyeweerd and the latter two has yet to be fully explored.) The author's belief about these latter two is based on his investigations into how these turns have been referred to in IS and how Dooyeweerd has helped him formulate alternative frameworks for understanding IS.

How it manages to do this will occupy the discussion in the next chapter.

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