

AN ENDURING PHILOSOPHICAL AGENDA: WORLDVIEW CONSTRUCTION AS A PHILOSOPHICAL METHOD.

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Abstract. Is there such a thing as a philosophical method? It seems that there are as many philosophical methods as there are philosophies. A method is any procedure employed to achieve a certain aim. So, before proposing a method, we have to tackle the delicate question: “what is the aim of philosophy?”. At the origin of philosophy, there is a questioning about the world. The worldview approach developed by Leo Apostel elegantly explicit those fundamental questions. As we answer them, we come up with a worldview. Using this framework, this paper consider answering this enduring philosophical agenda as the primary aim of philosophy. We illustrate the approach by pointing out the limitations of both a strictly scientific worldview and a strictly religious worldview. We then argue that *philosophical worldviews* constitute a particular class of possible worldviews. With the help of three analogies, we give guidelines to construct such worldviews. The next step is to compare the relative strength of philosophical worldviews. Precise evaluation standards to compare and confront worldviews are proposed. Some problems for worldview diffusion are then expounded. We close with basic hypotheses to build a comprehensive philosophical worldview.

Keywords: coherent worldview; comprehensive worldview; metaphilosophy; philosophical agenda; philosophical method; science and religion; scientific worldview; speculative philosophy; systematic philosophy; task of philosophy; theological worldview; Weltanschauung; worldview.

Contents.

1 Introduction	3
1.1 Takeover of science over philosophy	3
1.2 Philosophical trends	3
1.3 Problems	4
2 The philosophical method	5
2.1 Rescher	5
2.2 Popper	6
2.3 Broad	6
2.4 Apostel	7
3 The worldview agenda	7
3.1 What is a worldview?	7
3.2 The fundamental questions.....	8
3.3 Necessity to have a worldview.....	10
3.4 A cybernetic model of a worldview	11
3.5 Examples of different worldviews	12
3.6 Evolution of questions and components.....	13
4 Analogies for philosophical worldviews	14
4.1 The class of philosophical worldviews.	14
4.2 Worldview questions as axioms.....	15
4.3 Worldview questions as a system of equations	17
4.4 Worldview questions as problems to solve.	17
5 Worldview confrontation and diffusion.	18
5.1 Uniqueness?	18
5.2 Worldview confrontation	19
5.2.1 Agree to disagree	20
5.2.2 Evaluation standards	20
5.2.3 Application. Science-and-religion dialogue.....	22
5.3 Worldview diffusion	22
6 First steps towards worldview construction.....	23
6.1 Failure of traditional worldviews	24
6.2 Science first	24
6.2.1 A universal language for sciences.	25
6.2.2 No single person	26
6.3 Ambition and caution	26
6.4 Summary of steps towards worldview construction.....	27
7 Conclusion	27
Acknowledgements	28
References	28

1 Introduction

1.1 Takeover of science over philosophy

Since the development of modern science, we have to recognize that science has been taking over more and more issues from philosophy. For example, classical philosophical problems about the mind, time, space, or the cosmos are now investigated by scientific means. How should philosophers react to this? They should be delighted, because it means that we are getting more precise arguments and insights in our search for understanding the world.

However, that does not mean that philosophy has lost its place, but rather that it has to redefine its scope and also its relationship to science. Philosophy could take the opportunity to embrace all this new knowledge with its new philosophical consequences. Partly because of this takeover, today's philosophy collapsed in two main traditions, with different drawbacks that we will quickly examine.

1.2 Philosophical trends

Paul Ricoeur directed a survey of the "main trends of philosophy" (Ricoeur 1979). Although this dates back more than twenty-five years, it is interesting to look at the three main trends he did distinguish.

- (1) Philosophy is a Weltanschauung (worldview)
 - (a) Marxism
 - (b) derivatives from hegelianism
 - (c) philosophies of scientists calling for synthesis of cosmology and anthropology
 - (d) Aristotelian-thomist synthesis.
- (2) English and American analytic philosophy
- (3) Subjectivity and beyond. Philosophy's responsibility is considered to be the taking into account of other forms of experience than objective knowledge. (young Hegel, Kierkegaard, young Marx, and certain developments of phenomenology.) This third trend could correspond to what is often called "continental philosophy".

Philosophy today seems to show that analytic (2) and continental philosophies (3) are the two main trends. However, even if analytical philosophy did bring powerful methods of analysis and critic into philosophy, it still lacks a general guideline, and a unifying idea. And the use of logical methods can not be such an idea. On the other hand, continental philosophy appears like a stimulating intellectual approach. But it faces even greater problems than analytic philosophy; the first one being probably its lack of methodology; see e.g. (Shackel 2005).

It is noteworthy that we can draw a parallel between these trends and the distinction elaborated by Broad (1924) between *speculative philosophy* and *critical philosophy*. Speculative philosophy corresponds to philosophy as a worldview (1), and critical philosophy can take two forms, the analytic (2) or continental (3) philosophy.

Analytic philosophy really needs something more than pure analysis; certainly a synoptic and synthetic point of view. Worldview construction, or speculative philosophy can precisely fulfil this need. This kind of philosophy could also be called, as the faithful companion to analytic philosophy, *synthetic philosophy* -although being different from Spencer's philosophy.

Another trend that we should add is the specialization of philosophical problems, together with an explosion of the agenda. This is exemplified by the proliferation of second-order problems, or the "philosophies of x "; where x is often a scientific discipline, but can be almost any discipline. These specialised philosophies are certainly very useful, enlightening their specific domain; but their relation with fundamental questions about the whole is becoming more and more difficult to link up.

1.3 Problems

We're facing two main problems. The first problem is related to the method of philosophy. Since a method is any procedure employed to attain a certain aim, even before trying to build a method, we must face the highly debated question: *What is the aim of philosophy?*

A fuzzy answer to that question is to say that it is the quest to understand humankind and the world it is living in. However, for the most important questions, this enterprise overlaps with science and with religion. We do not aim to focus on this problem here. Let us just say that philosophy, science and religion have this common quest of understanding (see e.g. (Russell 1988)), and they can build more or less strong relationships to pursue it. In section 3, we define the worldview agenda as being the central aim of philosophy.

Karl Popper is famous for his criterion of "falsifiability" to distinguish between scientific and non-scientific theories. But what did he say about the status of philosophy? In the last few pages of a paper entitled "On the Status of Science and of Metaphysics", Popper states the problem of philosophical theories in the following way: "*If philosophical theories are all irrefutable, how can we ever distinguish between true and false philosophical theories?*" (Popper 1958, 266). That is, how can we make rational, persuading and useful speculations?

In our framework this second problem can be formulated as: *How can we build philosophical worldviews?* This paper aims to answer this question, by providing a method, or at least some guidelines for such a construction. The following questions also naturally arise. What criteria could we use for saying that such or such worldview is better than another? How can we compare the strengths and weaknesses of different worldviews? How can we best diffuse them?

We will first present an enduring philosophical agenda in section 3. Then using three analogies, we will give some guidelines to construct philosophical worldviews (section 4). With the help of evaluation standards we will then examine how we can compare and

confront worldviews, with an application to the science-and-religion dialogue (section 5). We will also outline some problems for worldview diffusion (section 5.3). The last section 6 will go one step further and propose some basic hypotheses to build a comprehensive philosophical worldview. But first we will start with some remarks about the philosophical method (section 2).

2 The philosophical method

There seems to be as many philosophical methods as there are different philosophies (Passmore 1967). For Plato or Hegel the philosophical method is the dialectic; for Bergson it is the intuition; for Wittgenstein it is uncovering nonsense; for Schlick it is clarification; for Husserl the phenomenological description; for Hume it is following the methods of experimental inquiry, and for Spinoza applying the methods of geometry, etc... The diversity of methods thus tends to obscure the task of philosophy.

Why is it so? As Körner (1969, 20) suggests, probably because when philosophers find a fruitful method, they tend to extend it, and claim that their method is the only proper method of philosophy. They often even define philosophy by the use of that method. Since a particular author's philosophy equals a particular philosophical method, it is very difficult to try to make an overview of *the* philosophical method.

However, specific problems such as "What is philosophy? What is its method, function, and scope?" have been revived and explicitly studied under the label of "metaphilosophy". The distinction between metaphilosophy and philosophy can be made in terms of problem domain, however in general there is no such thing as a meta-theory that one could apply to any philosophy, without having itself philosophical presuppositions.

This paper is mainly inspired on the work of five important (meta)philosophers: Nicholas Rescher, Karl Popper, Charlie Dunbar Broad, and Leo Apostel with Jan Van der Veken. We will now introduce their main contributions to this debate.

2.1 Rescher

Nicholas Rescher (Rescher 2001, chap3) clarified why the question of the aim of philosophy is so important. The set of questions that a philosopher aims to tackle is called the "philosophical agenda". Defining this agenda is strongly related to the kind of philosophy that is going to be undertaken. Thus, the agenda is a highly controversial topic in philosophy. This is an exceptional case in the landscape of intellectual disciplines. Most disciplines know clearly what their aims are, i.e. what they would like to see achieved.

We can illustrate this situation with three examples in the recent history of philosophy, each proposing a reduction of the agenda. Logical positivism tried to reduce the agenda of philosophy to nil; analytical philosophy reduced it to the study of language; and deconstructionism reduced it to the study of literature. However, we have today an explosion of the agenda of philosophy, with topics as diverse as the philosophy of sport or of humour.

Although Rescher (2001) discuss in depth these metaphilosophical issues in his book, he does not himself offer any explicit agenda.

2.2 Popper

We used Popper's formulation for exposing the problem of the philosophical method. His proposed solution is to claim that a rational theory answers problems. Therefore, we have to analyse the relation between a *problem situation* and the proposed solution.

Now if we look upon a theory as a proposed solution to a set of problems, then the theory immediately lends itself to critical discussion -even if it is non-empirical and irrefutable. For can we now ask questions such as, Does it solve the problem? [...] Questions of this kind show that a critical discussion even of irrefutable theories may well be possible. (Popper 1958, 269).

2.3 Broad

Broad distinguished three kinds of philosophical activities: *analysis*, *synopsis*, and *synthesis*. *Analysis* is the well-known study of concepts and their interrelations; *synopsis* is "the deliberate attempt to view together aspects of human experience which are generally viewed apart, and the endeavour to see how they are inter-connected." (Broad 1958, 116); and the purpose of *synthesis* is "to supply a set of concepts and principles which shall cover satisfactorily all the various regions which are being viewed synoptically." (Broad 1958, 126). He emphasize the strong link between analysis and synopsis:

Analysis and synopsis themselves may be present in very different degrees and proportions. Hume's work, e.g., is so predominantly analytic that it might be denied to be synoptic, and Hegel's is so predominantly synoptic that it might be denied to be analytic. But I believe that both are always present, and that each involves some degree of the other. Lastly, there is a very high positive correlation between synopsis and synthesis. Synthesis presupposes synopsis, and extensive synopsis is generally made by persons whose main interest is in synthesis. (Broad 1947).

Broad also gives excellent examples of synopsis in different important philosophical problems such as sense-perception, mind-body and free-will. The clarity and rigour of his writings make them very worth reading (Broad 1924, 1947, 1958).

2.4 Apostel

Great philosophers are so because of their ambition to build systems of thought, that answer all philosophical questions. One of the last great attempts was made by Rudolf Carnap. Nowadays, Carnap is almost always quoted in order to be bitterly criticised -and on very strong grounds. However, one of his students, Leo Apostel (1925-1995) kept the same ambition, the same grandeur, without the naive and reductionistic presuppositions of the Vienna Circle. This led him among others to create an interdisciplinary research group, The World View group, and to write a short book together with Jan Van der Veken (Apostel and Van der Veken [1991] 1994), which can be compared with the manifesto of the Wiener Kreis (Carnap *et. al.* 1929). The difference between the two is

that the latter had a recognition it did not deserve, and the former deserves a recognition that it did not have.

This work has the great merit to clarify the big questions of a worldview or a philosophy (we will clarify the difference between worldview and philosophy shortly [3.1; 4.1]). Let us elaborate this worldview agenda in more details.

3 The worldview agenda

3.1 What is a worldview?

In its broadest sense, when we talk about "a philosophy" we refer in fact to a worldview. For example, when we speak about the philosophy of the Inuit or the Maya. The term worldview (*Weltanschauung* in German) has a long and fascinating history going back to Kant (see (Naugle 2002) for an history of the concept). The term has been and is used not only in philosophy, but also among others in theology, anthropology, or in education. Wolter (1989) summarized the relationships between worldview and philosophy. With the definition that will follow, our position tends towards what he calls "worldview crowns philosophy", that is, constructing a worldview is the highest manifestation of philosophy.

The term "worldview" is often used to emphasize a personal and historical point of view. In this sense, the term can have a negative connotation for the philosopher, because philosophy generally claims universal validity, as it has a clear association with rational thought. We will see [4.1] that it is possible to define the class of "philosophical worldviews", as rooted in rationality and thus also aiming at a kind of universal validity.

The next section will constitute our precise definition of what a worldview is. It offers at the same time a very general and sound philosophical agenda. With Rescher (2001, 33), we can distinguish between the procedural agenda, which in this paper consists of the *worldview questions*; and the substantive agenda, which consists of the proposed answers to the questions, and that we will call the *worldview components*. The components articulated together form a worldview, that is, a coherent collection of concepts that must allow us "to construct a global image of the world, and in this way to understand as many elements of our experience as possible." (Apostel and Van der Veken [1991] 1994, 17).

3.2 The fundamental questions

Here follow the six worldview questions. These questions corresponds to the "big", "eternal", or "age-old" philosophical questions. The choice of the questions is motivated in more details in (Apostel and Van der Veken [1991] 1994); also reformulated in (Heylighen 2000). We build on those two references for what follows. The traditional philosophical domains can be seen as answering these questions, presented in the table 1 below.

Question	Philosophical Domain
1. What is?	<i>Ontology</i> (model of the present)
2. Where does it all come from?	<i>Explanation</i> (model of the past)
3. Where are we going?	<i>Prediction</i> (model of the future)
4. What is good and what is evil?	<i>Axiology</i> (theory of values)
5. How should we act?	<i>Praxeology</i> (theory of actions)
6. What is true and what is false?	<i>Epistemology</i> (theory of knowledge)

Table 1: Summary of the worldview questions, with their corresponding traditional philosophical domain.

The first question is the question of ontology; or a model of reality itself. It can be typified with the question "*What is?*". It encompasses questions like, What is the nature of our world? How is it structured and how does it function? Why is there something rather than nothing? etc...

The second question explains the first component. Why is the world the way it is, and not different? What kind of global explanatory principles can we put forward? How did the Universe originate? *Where does it all come from?* Answers to these questions should be able to explain how and why such or such phenomena arose.

The third question is complementary to the second one. Instead of focusing on the past, it focuses on the future. *Where are we going to?* What will be the fate of life and the Universe? It is about futurology, because the component should give us a list of possible futures, with more or less probable developments. But the fact that there remain uncertainties, i.e. that there is more than one outcome possible, leave us with choices to make. Which alternative should we promote, and which one should we avoid? For this, we need values.

This brings us to the fourth question. How do we evaluate global reality? What should we strive for? *What is good and what is evil?* What is the meaning of life? Axiology traditionally deals with those questions, including morality, ethics, and aesthetics. The component should give us a sense of purpose, a direction, a set of goals to guide our actions.

The fifth question is about the theory of action, or praxeology. *How should we act?* What are the general principles according to which we should organise our actions? It would help us to implement plans of action, according to our values, in order to solve practical problems. It is often said that a philosophy is of no use because it is too far from reality,

that it does not give any precise answer to concrete questions, this is often true. A praxeology correctly developed should fill this gap.

The sixth question is about the theory of knowledge (epistemology). How are we to construct our image of this world in such a way that we can come up with answers to (1), (2) and (3)? How can we acquire knowledge? In its most general term, it is the question "*what is true and what is false?*", which is one of the main issues of logic. We thus could also relate to this component the question of language; what language should we use for our purposes of knowledge acquisition, and what are its limitations?

There is in fact a seventh question, which is a meta-question, asking *Where do we start in order to answer those questions?* It invites us to seek for the partial answers that we can propose to these questions. A natural way to start is to study worldviews that appeared in the history of ideas, preferably being aware of the tradition of thought, and its more or less hidden assumptions.

3.3 Necessity to have a worldview

In the section "The need for philosophy: humans as *homo quaerens*" Rescher (2001, 6-10) already argued in details from an evolutionary point of view that humans' strength is in their capacity to acquire and use knowledge of the world. "We are neither numerous and prolific (like the ant and the termite), nor tough and aggressive (like the shark). Weak and vulnerable creatures, we are constrained to make our evolutionary way in the world by the use of brainpower." (Rescher 2001, p7). This leads to the practical need to have more knowledge, to be able to understand and thus predict features of our world. There is accordingly a need to have a worldview and to improve it. There are also psychological and sociological needs for a good worldview. Sociological research seems to indicate that the feelings of insecurity and distrust are stronger among the people who least profess belief in a religious or philosophical worldview (Elchardus, 1998). Psychologists researching life satisfaction, on the other hand, have found that having such beliefs increases well-being, by providing a sense of life meaning, feelings of hope and trust, a long-term perspective on life's woes, and a sense of belonging to a larger whole (Myers, 1993). If philosophy does not answer those questions, others realms of our culture will take advantage of the situation, and provide answers. These are principally religions, or, much more dangerously, cults, extremist ideologies or fundamentalist interpretations of religion spreading irrational beliefs.

We all need a certain worldview, even if it is unconscious, to interact in our world. There is a practical need to have at least an implicit and very naive answer for each questions.

In the next section, we will argue that even such a simple entity as a bacterium needs to have a kind of worldview to interact meaningfully with its environment. Indeed, any living being is trying to survive, and has thus to deal with disturbances. This dynamic can be understood more precisely by introducing a cybernetic model of a worldview.

3.4 A cybernetic model of a worldview

We reproduced below (fig.1) the "Worldview of an individual in a cybernetic system" diagram of Heylighen (2000). This cybernetic approach will give us a first suggestion of how the different worldview components dynamically interrelate.

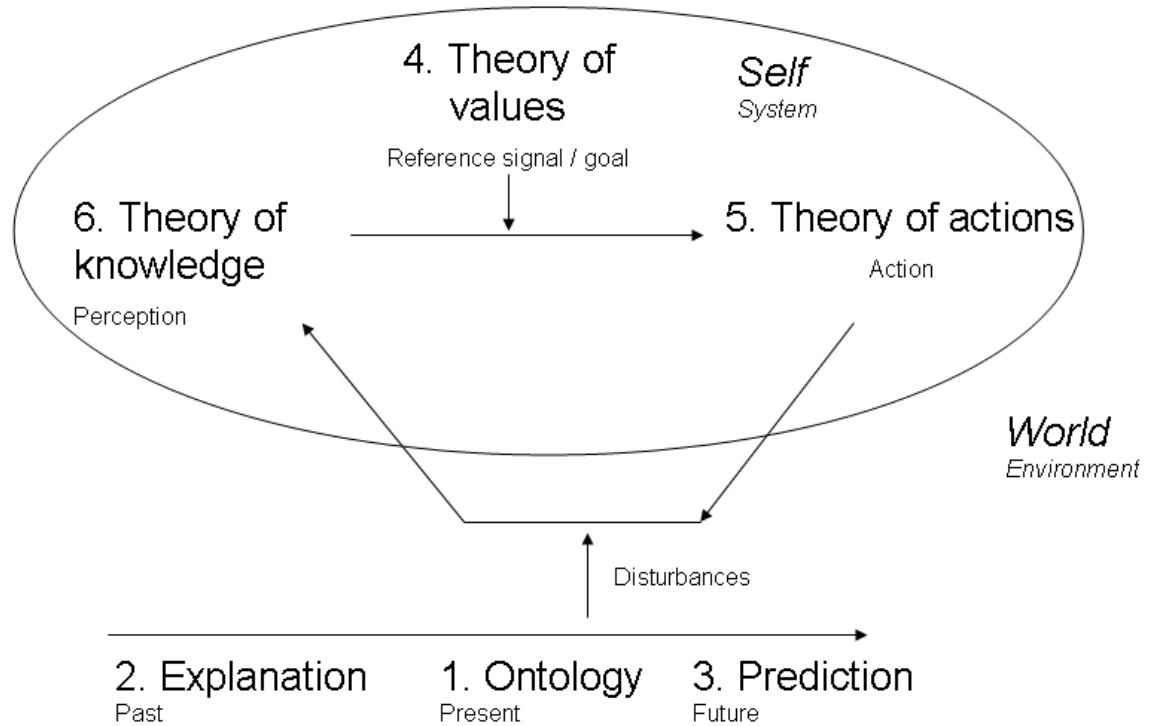


Fig 1. Worldview of an individual in a cybernetic system. Heylighen (2000).

“The apparently disconnected components of a worldview can in fact be understood as part of an encompassing scheme describing the interaction between a system or self and the world or environment. In cybernetics an autonomous system or agent is conceptualized as a control system, which tries to achieve its goals or values by initiating the right actions that compensate for the disturbances produced by the environment. For that, it needs to perceive or get information about the effects of its actions and the effects of the events happening in the world. More specifically, it needs to understand how particular events (past) cause other events (future), that is to say it needs to have a model that allows it to explain and anticipate events. The first six components of a worldview cover all the fundamental aspects of this control scheme, as illustrated in the following figure. Worldview components (in [large font]) are written above the corresponding control scheme components.”

Reproduced with the kind permission of Francis Heylighen.

What is striking when one looks carefully at this diagram is the centrality of the value component. The information we seek and the actions we do ultimately depends on our values.

Let us also note that the seventh component does not appear here, since it is a meta-level component. The components (1), (2), (3) could also be seen in the individual, since a worldview is from an individual.

3.5 Examples of different worldviews

We will now take four examples of four very different worldviews, by considering a scientific and a religious worldview but also the worldview of a bacterium, and of a society (see table 2 below). The scientific and religious worldviews we describe are caricatured. The purpose is not to be accurate in the worldview description, but rather to show how it functions.

	(a) scientific	(b) religious	(c) bacterium	(d) society
1. Ontology	Materialism, no God.	Dualism matter-mind.	What it senses at present.	Shared cultural ontology.
2. Explanation	Scientific models of the Universe, its evolution.	God. Answers in sacred writings.	A kind of memory. (Which can be the biochemical state of the bacterium.)	Explanation for the present society.
3. Prediction	Predictive models of our world.	Promise of a life after death.	Genetically-based anticipation system.	Political plans, forecasting.
4. Axiology	Very vague. Only values for scientific inquiry.	Concrete and fixed values from the writings. (e.g. Ten Commandments)	Mainly genetically determined: Find food; reproduce.	Utopia, political and economical values.
5. Praxeology	No guide for action.	Some precise and concrete actions proposed.	Move; eat and digest.	Political actions, normal people actions.
6. Epistemology	Interaction between theory and observation to build components 1, 2, 3.	Knowledge comes primarily from the writings.	Some basic perceptions.	Information comes from media and education.

Table 2: Examples of four different worldviews with their corresponding components.

It might be surprising that it is indeed possible to analyse the actions and interactions of a bacterium with the worldview model. Speaking about the worldview of a society may

also seem rather far-fetched, if we do not use the metaphor of the society as an organism. Those two extreme examples have however the benefits to show us the limits of the worldview concept. For we can wonder, what is the difference between a worldview and a model? A possible answer is that a worldview encompasses everything that is important to an individual, whereas a model describes a specific phenomena.

The "worldview of a society" example suggests that, even if a worldview is ultimately carried by an individual, we should also not forget to analyse higher levels of systems or organizations with the relevant concepts at that level. Of course, this higher analysis has to be *in fine* reintegrated in a worldview of an individual.

This approach in terms of worldviews thus intricately links abstracts philosophical questions, with an individual's personal experience. We do not simply seek the most perfect model of the world; we also want it embodied in individuals, thus providing rules to live meaningfully.

3.6 Evolution of questions and components

It could be objected that the worldview questions and components evolve. In how far have these questions changed over time?

We can (nay, we must) discuss how those questions can be answered - or failing that, dissolved-; but it is difficult to dismiss those questions as irrelevant. This philosophical agenda is arguably enduring. The first reason is, as we have previously argued [3.3], that there is a necessity to have a worldview for an individual to interact in his world, even for a very simple individual like a bacterium. The second reason is that these questions have been tackled again and again through the ages. Indeed, age-old philosophical questions are or can all be easily related to the worldview questions. For example *the* question of philosophy according to Kant, "What is Man?", and the two related "what is nature?", "what is the relation of man in nature?" are just vaguer and shorter ways for asking for a worldview.

It seems natural and obvious that there is an ever ongoing evolution of the worldview components. It is part of philosophy's task to constantly re-adapt a worldview to new knowledge and discoveries, to new things happening in the world. Together with the content of the worldview components, the precise intellectual context of an epoch will make the formulation of the problems related to the worldview questions change.

Those seven questions can be seen as a compass for any philosopher. Answering (at least) these questions is not just an option; it is the fundamental role of the philosopher. But how can we proceed to answer the questions, in the best possible way? What are the best philosophical worldviews, and how can we construct them?

4 Analogies for philosophical worldviews

4.1 The class of philosophical worldviews.

The worldview questions as we have defined them are nothing but the most classical and arguably, most important philosophical problems. How we will answer them will determine if we are doing philosophy, and what kind of philosophy we are doing. A common denominator to all the various definitions of philosophy is that it is a rational inquiry. We thus propose to define *philosophical worldviews* as the class of rational worldviews.

A corollary of this approach is that philosophy can be defined as either worldview construction (speculative philosophy) or worldview criticism (critical philosophy). Philosophy, like science, is neither pure speculation, nor pure criticism; it is speculation controlled not by experiments, but by criticism. There is a tension between the need for a systematic, integrative philosophy, and the rational, critical and skeptical attitude.

The criterion of rationality alone for qualifying the philosophical reasoning is minimal. We urge to add the values of open discussion and scientific attitude (Bahm 1979, 62-63). Also, one fundamental criterion emphasised by Broad is synopsis. But the synopsis has to be the widest possible one, e.g. in time and space scales. This requirement of broad synopsis recalls the fourth principle of Descartes' (1637) *Discourse on the Method*: "in every case to make enumerations so complete, and reviews so general, that I might be assured that nothing was omitted."

For example to the question, "where does it all come from?", we do not expect an answer of the kind: "from my mother's belly". We mean, "where does our Universe come from?". In the same way, the philosopher should seek values that would be valid for everyone (even if one's theory of values is a relative one, then there is still the meta-principle of the relativity of values). Similar observations can be made about the other questions.

Creating an ideology or a religion is also building a worldview. Without the criteria of *rationality*, *open discussion* and *widest synopsis* however, such a worldview would not be philosophical.

How can we construct philosophical worldviews? Of course, there is no easy way or an all-purposes-ready-made recipe to do it. However, we can go further than the three fundamental criteria of a philosophical worldview we outlined. Intuitively, the best worldviews would also answer *all* our questions, in a *coherent* way. How can we formulate this intuition more concretely? That is what we will examine now, with the help of three analogies. To prevent any misunderstandings, I wish to emphasize that the following analogies, like any explicit analogies, are merely cognitive tools. For example, with the first analogy we do not intend to import all mathematical logic tools to the worldview approach. Some perspectives may be worth exploring, others not.

4.2 Worldview questions as axioms

We propose to see the analogue of a worldview question as an axiom. A first consequence of this mathematical analogy is that every (hidden) assumption has to be made clear and explicit. Thus a worldview is the analogue of a model of axioms. We use the term "model" in the model theoretic sense, i.e. not in the sense of a simplified representation. A model is a structure satisfying a set of axioms. And as it is often possible for a set of axioms to have different models, different possible worldviews are equally possible for the same worldview questions.

But remember that our problem is: how can we reduce the number of possible worldviews? The intuitive answer is to keep only the worldviews answering *all* our questions, in a *coherent* manner. In our analogy, this corresponds to two fundamental properties of formal theories: *completeness* and *coherence*.

The analogy suggests that philosophical worldview should be *complete* in the sense that it should answer the six worldview questions. To clarify, we can state that the idea is here similar to the synthesis concept described by Broad, or the comprehensiveness criteria of (Rescher 2001), or with the idea that philosophical systems "should be evaluated, however, on their capacity for maximal integration of the [worldview] fragments." (Aerts, *et al.* 1994, 41). We mean that a "complete" worldview is suitable, in the sense of a worldview not excluding questions, even if some answers are still problematic or *ad hoc*.

An interesting approach to achieve this is to generalize the method of Pascal's wager (Pascal 1670), to answer all questions. Coincidentally (or not!) Kant follows the same way of reasoning in his *Critique of the Practical Reason* (Kant 1788), with his concept of the "regulative principle of the pure reason". In the first *Critique of the Pure Reason* (Kant 1781) he recognized that we can not answer metaphysical question definitely. He did not stop here, however. He still sought to answer all fundamental questions, and that's why he is a great philosopher. He thus chose a more hypothetical approach, saying that freedom, immortality of soul and God's existence are *postulates*. This is fully developed in his second critique (Kant 1788).

Let us now remember that a system is *coherent* if it is not possible to derive a contradiction from it. One answer to one question should never be contradicted by another worldview component. Of course, in worldviews such contradictions are more or less ubiquitous. However, such incoherences could help us to focus the worldview building on dissipating them. Take for example the classical problem of theodicy. How can a God who is supposed to be benevolent and omnipotent allow the existence of evil in the world? Classical philosophers and theologians have worked hard to propose solutions to this incoherence. Rescher (2001, chap 7,9) convincingly argue that conceptual distinctions can play the role of resolving such incoherences and that we can see the whole history of philosophy as this apory-solving activity.

We should however already be aware that the danger of emphasising coherence too much is to build an abstract system of concepts, very coherent, but that would be too far from reality. So, we should certainly add that coherence must not only be *internal* to the system, but also *external*, with "facts" or "reality". This dynamic is similar to the well known mutual feedback between theory and experience in scientific enquiry.

An important question naturally arises. Assuming that it is very difficult to build a worldview that is both coherent and complete, which of the two possibilities should we prefer?

(i) an incomplete but coherent worldview

(ii) a complete but incoherent worldview

The scientific worldview typifies the first situation (i). The answers it gives to a model of the world (1), an explanation (2) and predictions (3) are very coherent and with some epistemological additions, it can handle the questions of the theory of knowledge (6). Note however that coherence *between* different sciences is pretty hard to see achieved. But it is incomplete, in the sense that it does not answer problems of values (4) or actions (5). If we start with a very coherent worldview, we can then try to expand it to make it more complete, to answer new questions yet never tackled. The problem then faced is how can concepts developed for components (1), (2) and (3) be extended or made compatible with attempts for answering the worldview questions (4) and (5)? This might well be very difficult to achieve.

The religious worldviews tend to be complete but incoherent (ii). They are most often criticized for their inconsistencies. Indeed, if they keep being traditional, they are very poor at components (1), (2), (3), (6). However, they do give values (4) and guidelines actions (5). Even guidelines for actions can be confusing. Indeed, if we have a literal reading of the Bible we find both “An eye for an eye, and a tooth for a tooth” (Matthew, 5:38) and “If someone strikes you on the cheek, offer the other cheek as well” (Luke, 6:29). We have to acknowledge that many theologians do great efforts to achieve coherence, by working hard on interpreting the texts, and by including the results of modern science. And if the result is convincing, it is near what we would call a complete and coherent worldview. In this sense, this approach is much more appealing than a purely scientific worldview, which simply leaves very important questions unanswered. The same conclusion was drawn by Carvalho (2006, 122) arguing that completeness (or comprehensiveness) « cannot be achieved by a strictly scientific worldview ».

To conclude, we think that focusing first on completeness, on a synoptic view, makes much more sense than focusing on coherence. From a wide synopsis, we can start solving the contradictions, thus going towards a complete and coherent worldview. However the concepts used by some coherent worldview components can be so different of the one used by the others, that it makes the way to a complete worldview (to a synthesis) very difficult, if not impossible.

I insist again that this is just an analogy. Let us therefore point out some of its limitations. I shall first emphasise that the worldview, contrary to a mathematical model in which there is no time variable, does not have to be fixed for ever. It must be kept open to modifications and improvements. It must be emphasised that the analogue of axioms here are questions, not propositions. The analogy thus does not imply a presupposition of foundationalism. Thus, it is foundational in the sense that the questions are fundamental, but there are no presuppositions for how to answer them. Some might already have torn to pieces this paper, correctly objecting that the analogy breaks down because of the well-known limitation theorems, which states that no formal system containing at least Peano's axioms of elementary arithmetic can be both coherent

and complete. But here we are seeking heuristics, and this analogy gives us some clues about what an *ideal* worldview should come close to.

4.3 Worldview questions as a system of equations

Another interesting mathematical analogy is to compare the worldview questions with a system of equations. The questions are related, as are the equations in a system of equations. Hao Wang explicated this analogy (Wang 1986, 210). Solving philosophical problems is "comparable to solving an intricate set of simultaneous equations which may have no solution at all or only relative solutions in the sense that we have often to choose between giving more weight to satisfying (more adequately) one equation or another." This suggests that we might have to give more weight to one component or another when answering the questions. Ideally, the philosopher should limit this bias, or at least be aware of it.

This analogy also implicitly assumes that there exists a common language to the different equations. Thus, for the worldview questions, this would imply finding a coherent set of concepts relating consistently to each other in all the different components.

4.4 Worldview questions as problems to solve.

This third analogy may be the most interesting and powerful way to look at the worldview questions. Nicholas Rescher argued that the most understandable history of philosophy to write would be one explicating the dialectic of *problems* (or questions) and *answers* (Rescher 2001, chap2). Now, if we assume, for the sake of the analogy, that philosophy is problem-solving, then why not use the rich literature (e.g. the classical (Newell, Simon 1972; Polya 1957)) about this field to understand and tackle philosophical problems?

A very clear way to approach the problem of building a philosophy is to view it precisely as a (big!) problem to solve. Newell, Simon and Polya work on general problem solving methods gave rise to the following sequence of steps:

- (1) Understand the problem
- (2) Conceive a plan
- (3) Execute the plan
- (4) Examine the solution

In the case of building a philosophy, the problem is a very difficult one, because it is in fact the set of problems given by the worldview questions. This approach perfectly fits Popper's claim that "every *rational* theory, no matter whether scientific or philosophical, is rational in so far as it tries to *solve certain problems*. A theory is comprehensible and reasonable only in its relation to a given *problem-situation*, and it can be rationally discussed only by discussing this relation." (Popper 1958, 268- 269) [italics by Popper].

The context of the problem, the *problem-situation*, is thus also of paramount importance. For example, a philosophical problem is always embedded in the ongoing debate confronting the most prominent philosophical positions.

5 Worldview confrontation and diffusion.

We will now investigate more precisely how we can confront different worldviews. First, we argue that philosophers should aim at a unique worldview [5.1]. We then propose some evaluation standards to see how to confront different worldviews [5.2], and some considerations to take into account for worldview diffusion [5.3].

5.1 Uniqueness?

A very important question is, should we struggle for a single worldview or for several worldviews?

At first sight, one might be afraid of a single worldview. Why? We all know the dangers of powerful worldviews, underlying totalitarianism or fanaticism, such as the communist or the Nazi ones. Of course, it is very important to analyse the complex reasons for the success of such worldviews at a particular time, but this is not the place to do that here.

It is interesting to note that Marx claimed that his ideas were "scientific" (we will return to this question of "scientific philosophy" in section [6.2]). Popper's effort toward epistemology was initially intended to show that Marx's philosophy and psychoanalysis were not sciences, as they claimed to be. So we should be very careful about applying worldviews uncritically. A key to do so is to make sure that the worldview remains open-minded, i.e. revisable. In short, that it accepts values of criticism or open discussion which are, let us remember, the characteristics of philosophical worldviews.

Another fear is that if we all had the same worldview, it would imply that we would all think the same. This is of course a misunderstanding, since a worldview is more a guide, that gives very general recommendations: there can be very different roads to the same destination, thus leaving a lot of freedom of actions.

For the time being, the danger is rather in worldview fragmentation than in uniqueness. Archie Bahm expressed it well: "the problems facing us today are more those of achieving greater unity, through a new complex organic synthesis, than of achieving more diversity" (Bahm 1979, 101). Thus, we can say that we aim for a unique worldview, but we should be careful not to claim that it is absolute. This dilemma is well expressed in (Apostel, Van der Veken [1991] 1994, 24): "we have learned to appreciate variety and multiformity as values, and hence we do not want to strive for one unique worldview. But neither do we want to resign ourselves to the present situation of fragmentation."

On the other hand, what reasons can we find to argue for a unique worldview?

First of all, we could say that if reality is one, and a worldview is an objective description of reality, then there can be only one sound worldview. We can immediately object that a worldview also contains components such as values, which are chosen, and thus not objective. Still, scientific progress leave us few choices for components (1), (2) , (3).

A better argument is that a homogeneous society has fewer conflicts (Durkheim 1893). Thus, sharing values and aims will reduce conflicts, and enable us to conduct more

elaborated projects. In spite of post-modern emphasis on cultural relativity, it can be argued that there are values common to all civilizations. As supported by empirical research about the factors determining what makes people happy (Heylighen, Bernheim 2000a), murder, theft, rape, lying, etc... are negative values in all societies, whereas health, wealth, friendship, honesty, safety, freedom, equality, etc... are positive ones.

Generally, a homogeneous system is easier to control (the word "control" has no negative connotation here, since it is a very general and central concept of system theory) and has fewer conflicts, because the elements have the same goals. Thus, less diversity is easier to control, but more diversity has the great advantage to allow more adaptability (Gershenson 2007). Thus, it seems that a trade-off between the two has to be found. Surely, an ideal worldview would be one with a great adaptability, so that it can face new unknown problems.

To sum up, we can distinguish two levels. The first level is the one of the philosopher, seeking a single "best" worldview. What is important is to be open to criticisms and adapt the worldview to new knowledge or ideas. If we take the requirement of diversity too seriously, we will never be able to build an integrated worldview. The diversity will naturally remain because of the individual attempts of philosophers to build distinct worldviews and because of the constant critiques. If we reach and remain with a unique worldview, it will be a great achievement. But only then we will have to be particularly critical, and actively search for more diversity.

The second level is the metalevel of comparisons of worldviews. History of ideas functions at this metalevel, allowing a broader analysis of the evolution of different worldviews. Viewed from this level, having different worldviews is beneficial, because otherwise there would be nothing to compare! To conclude, we can say that we have to develop and maintain different worldviews only if they are equally powerful, i.e. if they answer as well the worldview questions, in a coherent and comprehensive manner. But how precisely are we to evaluate the relative quality of different worldviews? That is what we will investigate now.

5.2 Worldview confrontation

Why would we confront different worldviews? For example, it is often claimed that there is no contradiction between the religious and the scientific worldviews. This is incorrect since they give different answers to the same questions, although we have seen that they preferentially answer different sets of the worldview questions. We can confront different worldviews either to discredit one of them, or to argue for a new worldview (or both!).

How can we establish that one worldview is better than another? Any answer to a single worldview question will be open to criticism, often on strong grounds. Such automatic criticism, however, may result in a relativistic, sceptical attitude which denies the existence of an answer to such philosophical questions.

But let us challenge the sceptic, and ask him to criticize answers given to *all* six worldview questions. He would then have to discredit not only a philosophical proposition, but a philosophical system of thought. This entitles us to ask him for

alternatives for the system he criticises. If he does not produce them, he is taking an easy position, eschewing his task as speculative philosopher. Moreover, he also has biases and an implicit worldview on which his criticisms are based.

A philosophical worldview has to compete with any other worldview (sectarian, religious, scientific reductionistic, etc...) hopefully to be shown to be better in the end.

5.2.1 Agree to disagree

When we face a disagreement that has failed to be resolved by rational discussion, the next step to take is to *agree to disagree*. This can be achieved by laying bare the traditions from which the different positions originate. This exposition of a philosophical position can be done simply by answering the worldview questions. If two disagreeing philosophers follow this rule, most likely they will quickly uncover the source of the conflict. I do not mean that we have to maintain this situation, because this is simply acknowledging a contradiction, between two thinkers, but still a contradiction. So, both should wonder how to solve it, either by changing their position, or by refuting the opponent.

5.2.2 Evaluation standards

How can we evaluate philosophical theories? Rescher (2001, 31) proposed an interesting list of evaluation standards. However, their presentation and organization can be improved. For example, we do not agree with the statement that "One philosophical theory/thesis is better than another when, other things being equal [...] It has a better fit to our prephilosophical knowledge in everyday life and in natural science". Should we really care much about our "prephilosophical knowledge in everyday life"? Einstein's theory of relativity goes clearly against all our prephilosophical intuitions. But it has very important consequences for the knowledge of our Universe. So, a philosophical theory should foremost focus on fitting with natural sciences (see the next section). The question of our prephilosophical knowledge is secondary and is relevant only to the perspective of diffusion. The proposed categorisation according to presentational, evidential, and consequential merits could also be replaced by a better one.

I therefore propose to reorganise Rescher's evaluation standards on the basis of a short paper called *Objective, Subjective and Intersubjective Selectors of Knowledge* (Heylighen, 1997). Further developing the thoughts of Donald T. Campbell, the paper distinguishes three main classes of criteria to select "fit" knowledge :

- (1) Objective criteria – selection for fit to the outside object.
- (2) Subjective criteria – selection for acceptance by the individual subject.
- (3) Intersubjective criteria – selection for sharing between subjects.

With the help of these distinctions Rescher's (2001, 31) criteria can be organised more clearly:

One philosophical worldview (system) is better than another one, when, other things being equal:

- 1 It emphasizes *objective* criteria.
 - 1.1 It has a better fit with all the natural sciences.
 - 1.2 It addresses and adequately resolves a broader range of philosophical questions (especially the worldview questions).
 - 1.3 It exhibits greater internal and systemic coherence. It thus has fewer anomalies.
- 2 It better fulfils *intersubjective* criteria.
 - 2.1 Its deliberations are less complex and its exposition is less complicated.
 - 2.2 It encourages a life-outlook that is socially more beneficial.
- 3 It is easily adaptable to *subjective* criteria.
 - 3.1 It is simpler. It involves fewer distinctions and requires less elaborate explanations. Its principles are less artificial and contrived.
 - 3.2 Its lessons and implications for the conduct of life accord better with those of “common sense” experience.
 - 3.3 It encourages a life-outlook that is personally rewarding.

This list is ordered, in the sense that the objective criteria are more important than the intersubjective and the subjective ones.

In our worldview framework, using our analogy [4.2] we can find at least the following parallels: (1.2) is completeness; (1.3) coherence; (1.1) is essential for the worldview components 1, 2, 3; (2.2), (3.2) (3.3) are expected for a good praxeology; (2.1), (3.1) are generally useful for diffusion (see the next section). Keeping in mind those criteria will definitely help us to choose between two speculative philosophical theories or worldviews.

Popper (1958, 269) also gathered relevant questions to ask to a philosophical theory (i.e. a theory that is “non-empirical and irrefutable”). Let us quote him again, without any cut this time:

In other words every *rational* theory, no matter whether scientific or philosophical, is rational in so far as it tries to *solve certain problems*. A theory is comprehensible and reasonable only in its relation to a given *problem-situation*, and it can be rationally discussed only by discussing this relation.

Now if we look upon a theory as a proposed solution to a set of problems, then the theory immediately lends itself to critical discussion -even if it is non-empirical and irrefutable. For we can now ask questions such as, Does it solve the problem? Does it solve it better than other theories? Has it perhaps merely shifted the problem? Is the solution simple? Is it fruitful? Does it perhaps contradict other philosophical theories needed for solving other problems? Questions of this kind show that a critical discussion even of irrefutable theories may well be possible.

(Popper 1958, 269).

5.2.3 Application. Science-and-religion dialogue.

We have already examined the limitations of both scientific and religious worldviews, the one in terms of incompleteness, the other in terms of incoherence. So, a fruitful open discussion between the two should ideally lead to either:

- (1) A religious worldview more coherent with scientific findings.
- (2) A scientific worldview completed with an axiology and a praxeology.

The direction (1) is taken by theologians who are doing much more work towards integrating science and building a comprehensive worldview than proponents of strictly scientific views. Theologians use science to propose an integrated worldview, to integrate these results with an axiology and a praxeology. Notable examples of such developments are the religious philosophies developed by Teilhard de Chardin or Whitehead. But what about the other option (2)? What is the approach towards building an integrated worldview on rational grounds, without requiring a kind of divinity? This is normally the task of a nontheist philosophical system. The praxeological component could certainly be enhanced by integrating the insights from domains like problem-solving, management science, operational research, etc.

However, both directions by their attempt to be more comprehensive and more coherent would then become philosophical worldviews. We can even be more specific by distinguishing two kinds of philosophical worldviews. Carvalho (2006, 123) distinguished «comprehensive theological worldview» (1); and «comprehensive philosophical worldview» (2). We should emphasize that these two endeavours are very similar.

The general worldview approach helps to clarify the strengths and weaknesses of both scientific and religious worldviews. More importantly, given the precise evaluation standards provided in the previous section, it also becomes possible to compare theological and philosophical worldviews. This allows us to focus on how well a worldview does answer its fundamental questions, whatever is its orientation (philosophical or theological). We think that the dialogue of science and religion can be enriched in this broader (meta)philosophical framework.

5.3 Worldview diffusion

A worldview has the intention and the power to change our world —provided that it is diffused, accepted, and used. How are we to diffuse the worldview that we have constructed thanks to the previous guidelines?

The 7th component reminds us that we cannot start from scratch. The philosopher Archie Bahm (1979, 100) distinguished two steps to diffuse a worldview: first, to reveal presuppositions contributing to the present crises; second, to find presuppositions needed to recover from them. We thus have to analyse the present situation and the presently existing knowledge, and find ways, from those existing worldviews, to reach the new worldview.

It is often said that religions provide concrete values. Indeed, contradictions and a variety of incompatible interpretations can be derived from the sacred texts. However, the social

structure surrounding spiritual institutions (churches, temples, etc...) is there to welcome people and to help them solve their problems. This social structure supports the process of decision-making, which involves axiology and praxeology. In the same way, maybe that more philosophically oriented social structures could be developed.

Changing the moorings of people has to be done smoothly. Depending on the subject, it can take time -one generation or more- but in our world of accelerating change, this is not acceptable. Thus, we have to expect people to be more adaptive. When a worldview is proposed with the aim to convince, the statements should be clearly labelled as either strongly supported and consensual, or controversial and in debate. In its relation with the general public, the popularization of philosophy could provide a simplified (but sound) ready-made worldview. Remember that philosophy is traditionally a truth-seeking enterprise, so it should still emphasize objective criteria (1), and to a lesser degree subjective (2) and intersubjective (3) ones. Contrary to other belief systems, curious minds would be most welcome to further investigate where the worldview comes from, what are the issues at stake, what are the points most discussed, etc... But due to the complexity of the issues, to discuss them in detail would remain the professional philosopher's job.

In his *Critique of the Pure Reason*, Kant (1781) brought to an end a lot of metaphysical speculations. In a way, this is excellent, because it allowed science to develop independently of philosophical considerations, always with reference to sensible experience. Kant wanted peace in the domain of pure reason. Yet, in the context of the quest for knowledge, peace is counterproductive. This quest needs precisely the opposite: the confrontation and war between ideas (and ideas only!); for “in philosophy, controversy is the life blood of the enterprise” (Rescher 2001, 208). The worldview framework can be seen as a clear battlefield, where ideas can directly confront each others. Let the World-View-War (WVW) begin!

6 First steps towards worldview construction

This section outlines partial starting points to build a comprehensive philosophical worldview. The author's approach is clearly more in the spirit of position 1c) described in introduction, that is, a philosophy that tries to view the cosmos and man together.

What follows are first key principles providing more ways to filter the possible constructions of a philosophical worldview. Of course, building a satisfying worldview is a huge work; see e.g. the big traditional systematic treatises of philosophers, or browse through the hundreds of pages of the *Principia Cybernetica Project* worldview (Joslyn, Heylighen, Turchin, 1993). This section thus makes more philosophical choices than the previous sections. It will be more related to our present predicament, and to our present scientific knowledge.

6.1 Failure of traditional worldviews

We have already seen that the understanding of the context (our problem-situation, or present predicament) is vital. What are the main worldviews in our time, and in what respects do they fail? Very briefly, here are some basic criticisms. The religious worldview has no rational mechanism to resolve issues or disagreements; it proposes few answers to contemporary developments, and thus is non-adaptive; in cases of doubt, it tends to fall back into fundamentalism, i.e. the literal interpretation of century-old Scripture. The traditional, reductionist scientific worldview maintains determinism, claiming that there is no purpose, and thus no meaning to life. Holistic worldviews (e.g. "New Age") tend to be fuzzy, irrational and impractical. A humanistic worldview is too anthropocentric: it should seriously consider humankind in its broader context (evolutionary, ecological, cosmological, etc...). It cannot deal with problems such as the so-called "singularity", which suggests that humans are likely to disappear and be replaced intelligent machines. Individualism is a value so widespread that it could be interpreted as a worldview. It is often viewed as the main problem of our society. On one side, it can mean a different worldview for each person, and thus, no shared worldview. This leads to the claim that no worldview is better than another one. In the limit, this implies no common values and thus no common goals (relativism). On the other side, an individualist worldview can mean a worldview with a very narrow scale: how to make the most of "my little daily life"—whatever that implies for others. John Stewart proposes methods to make us enlarge our worldviews with the help of evolutionary modelling capacities, thus producing broader outlooks and values (Stewart 2000, chap. 11, 12).

6.2 Science first

We introduced our paper by noting that science is increasingly taking over philosophy. Considering the development of the sciences, this process is not going to slow down. We also saw that the criteria of objectivity is fundamental for any philosophical worldview [5.2.2]. Therefore, a sound worldview has to integrate as best as possible scientific results.

A common, yet vain, attempt is to turn philosophy into a science (e.g. Descartes, Spinoza, Hegel, Marx, etc...). Even though the intention to make philosophy coherent and rigorous is to be applauded, we have to be extremely skeptical when we hear the phrase "scientific philosophy". Indeed, scientific findings are often viewed as having a high authority which then would be immediately transferred in philosophy. Archie Bahm speaks about the different sciences of philosophy (ethics, etc...), but he explicitly means a general scientific and rational *attitude*. Unfortunately, it is often merely a trick used by philosophers to impose their philosophy, like in the example of Marx claiming that his dialectical materialism was a science.

Instead, we should simply ground philosophy in science, and be inspired by the rigour of the scientific method. Broad (1958) noted that philosophy may be non-scientific, but is therefore not un-scientific:

We must distinguish between being non-scientific and being un-scientific. What I have admitted is that philosophy is a subject which is almost certainly of its very nature non-scientific. We must not jump from this purely negative statement to the conclusion that it

has the positive defect of being unscientific. The latter term can be properly used only when a subject, which is capable of scientific treatment, is treated in a way which ignores or conflicts with the principles of scientific method. (Broad 1958, 103)

The importance of this distinction in the worldview context has been developed in more details by Orr (2006). For providing the widest synopsis, scientific results are unavoidable. Therefore, being coherent with major scientific results is not an option. We have to firmly and explicitly ground philosophy in science. We should take at the very least the most established scientific beliefs, and find ways to integrate them fully into our worldview. In such a philosophical worldview, it is a more serious defect to ignore important scientific results than to extrapolate them in order to solve other philosophical problems.

Such a worldview must be ready to be revised as science advances. If a scientific theory is refuted, it should be clear that philosophical consequences would have to be taken into account. This approach would limit purely intellectual philosophical constructions by keeping philosophical theories up to date with respect to scientific theories.

A common pitfall in philosophy is to delight in a conceptual world, without any connection to reality, i.e. rely on internal coherence alone. But any claim of a worldview should be able to be connected somehow to our concrete world, i.e. there must also be external coherence. A philosophical claim would then be explicitly linked more or less closely to facts, often through scientific theories. Concretely, a criterion for a good systematic philosophy would be a philosophy having links to at least the whole of well-established scientific knowledge; or even better, to the whole of human knowledge.

6.2.1 A universal language for sciences.

Leibniz is famous for his program towards a universal language for the sciences (*scientia universalis*), composed by a universal notation (*characteristica universalis*) and a deductive system (*calculus ratiocinator*). More recently, Curt Ducasse (1941, chap. 1) criticized the statement that "philosophy is more general than science" by noting that the philosopher does not make explicit the links between the different sciences. However, this is not true anymore. For the complexity sciences constitute precisely this bridging science. For example, some general concepts like feedback or self-organization can be applied equally well in physics, chemistry, biology, psychology, sociology... General system theory and cybernetics aim to propose a universal language for the sciences (e.g. (von Bertalanfy 1968)). We can thus expect fruitful cooperation of philosophy with those sciences of complexity.

We will not further develop the importance of striving towards a philosophical system, since Rescher (1985, 2001) already forcefully argued in that direction. Here is a summary of his position:

Our preface for simplicity, uniformity, and systematicity in general, is now not a matter of a substantive theory regarding the nature of the world, but one of search strategy - of cognitive methodology. In sum, we opt for simplicity (and systematicity in general) in inquiry not because it is truth-indicative, but because it is teleologically more effective in conducting to the efficient realization of the goals of inquiry. (Rescher 2001, 202).

6.2.2 No single person

A widespread adage about today's knowledge is that "no single person can handle its full extent anymore". This seems to imply humility and an appeal to restrict ourselves to just a small subject domain. Although the explosion of knowledge is a fact, here are some arguments and keys to react against this annoying situation.

First, as we have just said, system theory offers us such general concepts that they can apply to all the different sciences. Thus, if we master those concepts, we have keys to access all the scientific knowledge, not in their specific and incompressible details, but at least in their main principles.

Second, building a worldview is a huge philosophical enterprise. As with big scientific projects, we would certainly need more collaboration between philosophers. We thus need to have a better organization to handle this information overload, individually and collectively. Information technologies, such as emails, search engines, databases, are nowadays indispensable tools for the researcher.

6.3 Ambition and caution

Philosophy faces the following problem: the more interesting the questions are, the less we can be demanding about the answers. For example, we can have a perfectly precise answer to the question "How much is $5+7$ in Peano's arithmetic?"; but a much less definite one to "Does God exist?". So, if we try to answer this second kind of questions, we cannot expect definitive answers. The most rational way to answer is probably by aiming at what we have called a comprehensive and coherent philosophical worldview.

The further we are from "facts", the more cautious we need to be. Therefore, philosophers should be much more careful than scientists. We claimed that both analytical and continental philosophy lack ambition. However, we should be careful with ambition, as it can lead to dogmatism. We would like to put forward the following maxim:

The more ambition in the questions, the more caution with the answers.

Philosophers must remain *ambitious* in their goals, but proportionately *cautious* in the weight they give to their solutions. Indeed, it is precisely this ambition to answer age-old questions that stimulates philosophy. However, philosophers should be modest in the assurance of their system, because their systems are by construction fragile.

6.4 Summary of steps towards worldview construction

Starting a philosophy can be as simple as starting to answer rationally the worldview questions. Then, we can search for the interrelations between the components. The answers to the different questions will inevitably be in conflict with each other; but again, this is the motive of philosophical activity! The answers are likely to be very naive at the

beginning, but we can step by step refine them, by pointing out the contradictions and insufficiencies, and focusing on these to find ways to solve or complete them. The author thus suggests a pragmatic approach. If we wait until we find a supposed "Truth" or an "Absolute" before answering the questions, we might well wait forever. Here is a summary of the steps necessary to build a philosophical worldview.

1. Make a synoptic review of everything that could be useful to answer the worldview questions.
2. Choose or create the best concepts to make a synthesis out of this synopsis.
3. Propose a synthesis, in the form of a systematic philosophy.
4. Confront the resulting worldview, using the evaluation standards described in section [5.2.2] to show why it is a better worldview than the others that exist.
5. Show how it can solve the problems of our time.
6. Diffuse the worldview.

7 Conclusion

Because of its lack of ambition, present-day philosophy rarely proposes -or even aims to propose- a coherent and comprehensive worldview. We hope to have provided the first sketch for a method which keeps the classical ambition of philosophy, but with an even greater caution in trying to realize this ambition. This worldview agenda has the advantage of being in harmony with the origin of philosophy and with its traditional domains. It provides clear goals for philosophers.

We argued that a fruitful dialogue between religion and science should lead to the construction of comprehensive worldviews, whether more philosophically or theologically oriented, which then can be compared with the precise criteria we developed for worldview evaluation.

We also expounded some problems for worldview diffusion, and proposed basic hypotheses to build a comprehensive philosophical worldview.

Let this paper announce a rebirth of speculative philosophy, or worldview construction, in a cautious and clear framework. Paraphrasing a well-known philosopher of Königsberg, the spirit of this paper can be epitomized in the maxim:

*Speculative philosophies without content are void;
critical philosophies without synoptic conceptions, blind.*

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