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Abstract

Diese Masterarbeit untersucht wie Weltanschauungen konzeptualisiert, untersucht und verstanden werden, und wie diese Erkenntnisse für den Ethikunterricht relevant sind. Der Forschungsschwerpunkt gliedert sich in drei Teile. Zuerst wird ein Überblick über die Entstehung, Anwendung und Evolution der Bedeutung des Weltanschauungsbegriffs gegeben. Dieser Teil zeigt den philosophischen Ursprung des Begriffs und dient als grundlegendes Verständnis. Darauf aufbauend wird eine klare Definition des Weltanschauungsbegriffs formuliert. Zweitens wird eine Klassifizierung von Weltanschauungsmodellen präsentiert, und aktuelle philosophische Modelle werden erläutert und verglichen. Ziel ist es ein Verständnis von der Anwendung des Weltanschauungsbegriffs und einen Einblick in die Analyse von Weltanschauungen, durch die Verwendung aktueller philosophischer Weltanschauungsmodelle, zu gewinnen. Im letzten Teil werden drei verschiedene Unterrichtsansätze im Umgang mit Weltanschauungen der Schüler aufgezeigt und Gefahren, Möglichkeiten und praktische Beispiele werden genannt.

This master's thesis examines how worldviews are conceptualised, investigated and understood, and what relevance these insights have for ethics education. The research focus is structured in three parts. First, an overview of the origin, application and evolution of the meaning of the concept of worldview is given. This part shows the philosophical origin of the concept and serves as a fundamental understanding. Building on this, a clear definition of the concept of worldview is formulated. Second, a classification of worldview models is presented, and current philosophical worldview models are presented and compared. The aim is to come to an understanding of the application of the concept of worldview and to gain an insight into the analysis of worldviews through the use of current philosophical worldview models. In the last part, three different teaching approaches in dealing with students' worldviews are presented, and dangers, possibilities and practical examples are shown.

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I. Introduction

Worldview is a concept that has been portrayed in various ways. It has been studied in different research areas, using a plethora of definitions and applying the concept to various approaches in a seemingly arbitrary way. This has led to a muddled understanding of what a worldview is and how it functions. *Naming the Elephant: Worldview as a Concept*, the title of the book written by James W. Sire (2014), suggests that worldview can be conceptualised in a coherent way. What is more, Sire uses the analogy of the English metaphorical idiom, "the elephant in the room", to hint at the importance of addressing worldview as a concept. This understanding will be echoed in this text with the aim of providing a conceptual clarification of worldview and applying it to the specific context of ethics education. The importance of the study of worldview can be further emphasised with the statement made by Rousseau and Billingham (2018, 3): "The general significance of worldviews lies in this: everyone has one, and it constitutes a set of beliefs that guides their judgment making and action taking in all spheres of activity." Consequently, the elephant is not only in the room, but active in everyone and worth investigating.

1. Research questions and objectives

The central research question for this thesis is formulated as follows: How can worldviews be conceptualised, investigated and understood, and how can these insights be applied to ethics education? The aim of this master thesis is to gain an understanding of the current application of the concept of worldview and its analysis and comparison through the use of current philosophical worldview frameworks. This understanding is to be applied to the context of ethics education in order to reflect on the relationship between worldview and teaching ethics.

The research focus of this thesis is addressed by dividing the structure of this thesis in three parts that offer answers to a distinct set of subqueries, namely:

- What description of worldview can be given based on philosophical literature? Has the meaning of the concept changed over time and if so, in what way has it changed? What are the main characteristics that feature in a worldview according to philosophical literature?
- How can worldviews be compared to each other? How do current philosophical approaches differ in validity, findings and limitations?
- In what way is worldview connected to ethics? What are the implications of the relation between these two concepts for teaching ethics? Can ethics education be done without paying attention to the students' worldview? What are benefits and dangers of using worldview frameworks in ethics education? Is one of the purpose of ethics education to influence and change the worldview of students?

2. Methodology

The research questions will be answered by conducting a theoretical inquiry into the concepts and the relationship between these concepts. The research strategy is a combination of a systematic review of literature and a conceptual clarification.

Regarding the concept of worldview research from a multitude of areas, such as psychology, sociology and economics, can be used. In order to keep the focus of the thesis on ethics education, the educational research and philosophical literature concerning the concept of worldview will be used primarily. This is due to the aim of the text as a whole and due to the philosophic origin of the term.

3. Structure and outline

As already mentioned, the thesis is structured in three parts that aim at answering distinct research questions. At the same time, these three main chapters build on each other and function interdependently by using the understanding gained in previous parts in order to apply it to the specific focus of inquiry. In this introductory chapter an overview of the research aims of the different chapters is shown by outlining the structure of the thesis.

To begin with, Chapter II has the purpose of providing a conceptual definition of worldview. First, a selective overview of the emergence, application and evolution of the meaning of worldview as a concept is presented. This provides a historical context to gain an understanding of the original use of the term and critical steps in its development to its contemporary conceptualisation. Furthermore, this part depicts the philosophic origin of the concept and serves as a foundational comprehension of worldview. In order to be able to review the specific literature regarding the impact of worldview on teaching ethics, a clear definition of worldview as a concept needs to be given, which will be the objective of the second subchapter. This definition will serve as a preliminary understanding of the concept that will be contrasted with specific examples in Chapter III. This conceptual definition will be followed by a distinction of forms and characteristics of worldview by which it can be structured, such as the subdivision between personal and organised worldviews. Additionally, worldview will be differentiated from similar terms and concepts, such as belief system, paradigm, religion and ideology.

The next part, Chapter III, examines two different worldview frameworks and methods of analysing worldviews. Again, models for worldview comparison can be found in various fields of study, such as educational research, philosophy, psychology, sociology, environmental science, economics, business and

management literature. However, for this chapter both worldview frameworks are current philosophical approaches with distinct understandings of the concept. In addition to this, the selection of relevant frameworks is based on the definition presented in the previous chapters and the relevance of the worldview frameworks for ethics education.

In Chapter IV the conceptual understanding of worldview is applied to ethics education. A distinction between ethics education and worldview education is introduced and the implications of the influence of ethics education on students' worldview are addressed. Additionally, possible benefits and opportunities gained by applying different approaches in dealing with worldviews, or specific worldview frameworks in ethics education are depicted. Specific examples are given concerning the distinct teaching approaches in order to illustrate existing school programmes, projects and opportunities. At the same time, dangers occurring from the connection between worldview and ethics education are highlighted, with questions regarding transformation, influence and manipulation of students being at the centre of consideration.

In the conclusion, the answers to the research questions will be laid out and the results gained from the literature review will be summarised and reflected upon. The general discussion will aim at depicting the impact of worldview as a concept on ethics education, and the significance of this approach. Recommendations on further research on this topic will be given, and missing research will be pointed out.

II. Exploring worldview as a concept

Various terminology has been used to describe the concept of worldview and these wide-ranging names are being used interchangeably to describe the concept. "Cosmic perspective (Naugle, 2002, p. XVI)", "world outlook (Maslow, 1970, p. 39)", "personal philosophy (Rousseau, & Billingham, 2018, p. 3)", "human perspective (Polanyi, 1958, p. 3)" are just a few examples of names used to describe worldview. One explanation for these different connotations of the word is that worldview has been studied in a multitude of research areas with different methodologies and objectives. Resulting from the inconsistent application of the concept of worldview across different domains of study, a plethora of definitions is available.

A consequence of the variation of the meaning and application of worldview that is found in scientific literature is the need for a clear definition that is suitable for the purposes of this text. This chapter aims at answering two research objectives, the first being to give a general definition of worldview based on philosophical literature. The second aim is to present the main forms and characteristics that feature in the concept.

In order to define worldview as a concept, its origin, historical context, and development will be looked at in the first part of this chapter. The focus of this subchapter is to show the philosophic origin of the word and how its meaning has evolved over time. Additionally, this brief historical and etymological insight serves as a foundational understanding for the rest of the thesis.

The second subchapter presents the conceptual definition of worldview, that is used throughout the thesis. To be able to define worldview, the importance of approaching the study of worldview as a study of a concept will be addressed. The consequent definition will serve as a preliminary understanding of the concept that

will be contrasted with specific examples in chapter *III. Worldview frameworks*. In the following sections essential characteristics of the concept of worldview are shown, such as the inescapable and unprovable nature of worldview and the pluralism and relativity inherent in the concept. Furthermore, the differentiation between personal and organised, and the distinction between implicit and explicit worldview is presented.

By using the preliminary conceptual definition of worldview, a distinction between this concept and similar terminology can be made, which is presented in the last section of this chapter. The objective of this third subchapter is not only to differentiate between terms, but also to show possible connections and overlapping elements between the concepts. All mentioned terms and concepts of this last section are selected due to their frequent use in the relevant literature for this thesis.

1. History and evolution of the term

If one tries to list the philosophers that have dealt with the concept of worldview, many prominent names would come together, such as Kant, Hegel, Nietzsche, Dilthey, Heidegger, Kierkegaard, Wittgenstein and Husserl (see Naugle, 2002). This thesis does not aim at reviewing the whole philosophical development of the concept, nor is the objective of this chapter to depict all positions and counter positions regarding the conceptualisation of worldview. Instead, a selective overview of the emergence and evolution of the meaning of the concept is presented.

This chapter focuses on key figures that have influenced the conceptualisation of worldview. After a short look at the etymology of the term, the philosopher who coined the term, Immanuel Kant, and his understanding of worldview will be depicted. The next section focusses on G. W. F. Hegel, who popularised the concept and introduced changes to its meaning. The last philosopher highlighted is Wilhelm Dilthey and his systematic study of worldview, after which the

contemporary discussion about the concept of worldview is laid out. The selection of current research presented in this chapter is based on its relevance regarding the research questions and their specific contributions to the study of worldview.

The limitations of this method are evident, as none of the philosophers can be examined and comprehended in their full complexity by taking into account different interpretations of their thought and the lasting impact of their work. However, this is not the task of this chapter. The aim is to provide a historical context to grasp the original use of the term and key developments in its understanding. In this way the examination will move to the contemporary conceptualisation of worldview, where relevant aspects for the conceptualisation of worldview are illustrated. The resulting summary of this chapter serves as a foundational comprehension of worldview that will be built on in subsequent chapters.

1.1 Terminologic aspects

The term *worldview* is a loan translation from the German word *Weltanschauung*. The latter is a composition of the two words *Welt*, in English meaning world, and *Anschauung* which can be translated as view or notion (Langenscheidt.com, 2020). Less common renderings are *world-view* or *world view*. Frequently, the German word is still being used as a loanword as well (Wolters, 1989).

It is important to make a distinction between the German words *Weltanschauung* and *Weltansicht*. The latter is sometimes used as a synonym for worldview even though its intended application is entirely different. Adding to the confusion between these two terms is the fact that linguistic worldview is the English translation of *Weltansicht*. This similarity between *Ansicht* and *Anschauung* is due to both German terms belonging to the same word stem (Underhill, 2009).

Wilhelm von Humboldt, a German idealist, is the one who promoted the term *Weltansicht* and used it to refer exclusively to a linguistic worldview. The concept is used to show a connection between the shared *Weltansicht* of linguistic

communities (Underhill, 2009). This linguistic approach to the study of worldview must be differentiated from the philosophic origin of the word and its contemporary use, which will be laid out in the following chapters. This is due to the difference in meaning and application, and due to a different understanding of how a worldview functions.

1.2 Kant's introduction of *Weltanschauung*

Weltanschauung was coined by Immanuel Kant (1790/1987, pp. 111-112) in his text *Kritik der Urteilskraft* [*Critique of judgment*]. He mentions the word only once in the middle of a paragraph, and its meaning becomes evident from its application and from the context in which it is being applied.

Kant uses *Weltanschauung* to refer to the human structure that shapes the perception of the world. It is an a priori structure of the mind by which "Kant explained the perceived order of the world by the actual order of the observer (Tarnas, 1993, p. 347)". The world in its true form is not perceived, rather the perception and understanding is shaped by what reality appears to be to each individual based on his own interpretation (Wilson, 2004). *Weltanschauung* is used to name the a priori structure that enables the observer to understand the world only as far as it conforms to his cognitive mode of being. In this sense, from the beginning, worldview has been introduced as a concept that describes the relation between reality and perception. An essential characteristic of Kant's explanation of worldview is its existence prior to experience (Nilsson, 2013, p. 74). Following this introduction of the term in German philosophy it underwent key changes and evolved in its conceptual meaning.

1.3 Hegel's application of Zeitgeist

During the period of German idealism a transformation and popularisation of the term *Weltanschauung* took place. The concept was promoted by a number of philosophers from that period, most prominently by Georg Wilhelm Friedrich Hegel. In *Phenomenology of Mind* the metaphysical concept of *Geist* implicitly addresses worldview and its function (Ritter, Gründer, & Gabriel, 2004). Hegel's conception of *Geist* addresses a form of collective being that develops and grows in its cognition and perception until it reaches a state of true self-consciousness. Worldviews in this context are used to refer to the dominant manifestation of *Geist* in a given time period, also referred to as *Zeitgeist*. If the continual evolution and substitution of worldviews is viewed from a historical perspective, an ongoing progression of *Geist* becomes evident (Hedlund-de Witt, 2013, pp. 64-65). Each worldview is incomplete and flawed, which in turn facilitates the process of improvement and recurring change of *Zeitgeist* (Tarnas, 1993, pp. 379-380).

A first development in the meaning of the concept of worldview can be seen by comparing the understanding of Kant and Hegel. Kant's concept of *Weltanschauung* emphasises the role of the individual and the a priori structure of the mind that shapes the cognition and perception. The function of *Weltanschauung* is not bound to the local, cultural or historic context, but rather describes a structure independent of these aspects. In contrast to Kant's concept, Hegel's *Zeitgeist* is by definition connected to its era and the unfoldment of *Geist* is part of an overarching collective manifestation (Naugle, 2002).

1.4 Dilthey's systematic worldview study

A prominent, early approach to study the concept of worldview in a systematic manner can be found in the work of Wilhelm Dilthey. As Nilsson (2007, p. 10) puts it, Dilthey's work can be seen as "pioneering efforts to construct a theory of the genesis, articulation, comparison, and development of worldviews". Following Hegel's significant work, *Phenomenology of mind*, Dilthey called his research programme the *Phenomenology of metaphysics*. In contrast to Hegel, he did not bring the historical process together into a metaphysical system of absolute knowledge. Rather, his contemplation takes the opposite path, namely to show how a worldview is only expressed through the many small certainties rooted in the immediate certainty of experience and life itself, which he terms life experience.

Life experience is drawn from the material world where every human is integrated as a sensual physical being. This central characteristic in Dilthey's understanding of worldview reveals two important aspects. First of all, worldviews are grounded in life itself (Groethuysen, 1960, p. X). According to his conceptualisation, worldviews are constituted and formed by existentially valid life experience through the interaction and engagement with the world (Dilthey, 1960, p. 86). Secondly, different worldviews are understood as diverse perspectives of one and the same thing, namely of life (Groethuysen, 1960, p. XI). Each worldview reveals aspects of life that are visible due to prior life experience. This points to an important aspect in Dilthey's work, namely the concept of "historicality (Palmer, 1969, p. 117)". With this, Dilthey explains that a person is a historical being, whose life experience is primarily responsible for his understanding. Consequently, understanding is dependent on past comprehension of the world. History itself is not an object of the past, rather a series of worldviews that form the current worldview. In this sense, cognition and perception is sustained by and heavily reliant on historic worldviews. This notion of ever-changing modes of understanding and dependency on past worldviews shows

the "intrinsic temporality of all understanding (p. 117)". Ultimately, the current perception and cognition is influenced by past life experience and constantly transformed by present experience. Therefore, the best means by which self-understanding can be achieved is not introspection, or self-analysis, rather the study of historic views and past interpretations can better reveal and enable understanding of oneself.

According to Dilthey, every worldview is shaped according to the same principles. Thus, all worldviews have a common structure (Groethuysen, 1960, p. V). Moreover, all religious, metaphysical and scientific systems are understood as worldviews that have their common origin in the human context of life experience. In order to understand these systems as an expression of a worldview, Dilthey attempted to determine different classifications of the main forms of philosophy. Wilhelm Dilthey's approach to the study of these systems was based on an understanding of the way of thinking and the motives that led to changes and developments in the history of philosophy (p. V). This research approach resulted in a typology of the three most basic worldviews, which he called *Naturalism*, *Idealism of Freedom* and *Objective Idealism* (Dilthey, 1911). The first type views the world as determined by nature, where the dominance of the body is constitutive with an emphasis on sensations. The second category corresponds to the dominance of the mind, whereby the free will inherent in humans serves as a conscious separation from nature. The last type of worldview, the interdependence of body and mind, is a balancing position between the former two with the focus on a harmonious relation between humans and nature (see Naugle, 2002).

Dilthey's categorisation of historical systems according to different types worldview is by no means to be understood as a finalised form of classification. Instead, the focus of inquiry is to reveal typical forms of perspective by means of historical comparison through retrospective study. The aim of this method is not to offer a fixed category of worldviews, but to highlight the process by which worldviews can

be studied (Groethuysen, 1960, p. V). The task of the study of worldview is not the comparison and evaluation of different arguments, but the fostering of an understanding of worldview as an expression of a set of beliefs, values and ideals (Dilthey, 1960, pp. 197-198). Hence, worldviews are likened to preference and style, and are not to be played off against each other.

Dilthey's approach has been criticised as being subjective and dangerously relativistic (Gadamer, 1965; Husserl, 1911). The assertion that Dilthey would promote the position of historical relativism was refuted by him in his writing (Rodi, & Lessing, 1984). Despite ongoing debate about the interpretation of his work, the systematic worldview study of Wilhelm Dilthey introduces central aspects that represent important themes for later conceptualisations of worldview.

1.5 Contemporary application

The short insight into the contemporary conceptualisations in this chapter is selective and limited by the overall objectives of the chapter. A more complete review can be found in the works of Tarnas (1993), Naugle (2002) or Sire (2014). Due to the specific objectives of this chapter the focus is put on the influence of postmodern thought on the concept. Selected aspects will be highlighted dependent on their importance for the consecutive research aims.

The contemporary development of the concept of worldview highlights specific parts of the concept, and thus introduces further changes to its meaning. As Koltko-Rivera (2004, p. 8) puts it: "the construct is inherently postmodern in its implicit position that reality is, at least to some extent, subjectively constructed rather than objectively universal in its totality". The beginning of postmodern understanding of worldview is traced back to Kant's epistemological revolution, which shifts the focus of inquiry from the world to the viewer (Hedlund-de Witt, 2013, pp. 75-76). In this initial conceptualisation the underlying assumption, that objective truth can be found, was still accepted. This confidence in the capabilities of the viewer were first

replaced by skepticism, and by the assumption that the ability to comprehend and perceive is characterised by its temporal and limited nature (Hedlund-de Witt, 2013, p. 70). These aspects are similar to Dilthey's emphasis on the "intrinsic temporality of all understanding (Palmer, 1969, p. 117)" and his focus on the importance of individual life experience.

Another development is highlighted by Naugle (2002, p. 174) who points out that a number of postmodern thinkers have shaped the way the world is viewed in the sense that a disbelief toward any truth claim perpetuated by a comprehensive worldview was promoted. Attempts to offer an all-encompassing interpretation of reality, or the view that objective knowledge can be gained and shared, and thus a continual improvement can be achieved, were rejected. The result of this postmodern period is a numberless cluster of worldviews.

The previous chapter about Dilthey's understanding of the concept pointed out that different worldviews are understood as diverse perspectives of one and the same thing, namely of life (Groethuysen, 1960, p. XI). Similar to the understanding in the previous chapter, Hedlund-de Witt (2013, p. 76) notes that each perspective can offer only a fraction of knowledge about the same fundamental questions. This means that any given worldview is incomplete and deficient in certain aspects. Therefore, multiple points of view and modes of comprehension need to be included to achieve a clear or more complete perspective. However, attempted inclusions of different worldviews into one framework can be impeded by contradicting worldview beliefs. The conflict between various worldviews and the consequent limited ability of perception and comprehension is addressed by Tarnas (1993, pp. 396-397) as a central tenet of postmodern thought. Central to Tarnas' understanding of postmodern thought is that the world does not exist without interpretation. Its existence is dependent on and shaped by interpretation, without which the world cannot be perceived or understood. The interpreting individual is thus always imbedded in the world and the attempt to see from an objective

perspective is not accessible. Moreover, the modes by which the interpretation takes place, namely language, signs and symbols, are influenced by a number of factors, such as history, culture, preference, or social context. The consequence of this subjectivity, produced by predispositions, choices and bias, is that worldviews and their interpretations of reality are vague and blurred.

In order to overcome the limited and unclear perception and understanding, a discovery of objective, attainable and shareable knowledge is necessary. However, according to Tarnas this is unachievable. He states that the "subject can never presume to transcend the manifold predispositions of his or her subjectivity (1993, p. 397)". This inability of the subject has been recognised in postmodernity "with a critical acuity that has been at once disturbing and liberating (Tarnas, 2007, p. 40)". We are liberated from old structures which formed and organised the way reality was perceived and understood. These traditional constructs are now unveiled, revealing the powerlessness and limitation of the individual, which in turn is unsettling and disorienting.

The deconstruction of thought exposes worldviews and delineates their function in constructing and sustaining ideas about the world, and the systems that coordinate the social sphere are laid bare. Naugle (2002, p. 184) emphasised the position of Michel Foucault who terms worldviews as "facades of an absentee reality" that "function as an effective means of social oppression". The interwoven work of power and knowledge results in constructs by which oppressors maintain their privileged position. This reveals another function or capability, namely the power to shape and build reality according to specific aims. As Naugle (2002, p. 184) frames it: "We are thus the architects of our world, the craftsmen of our reality". Yet, the vision of the architect is incomplete and vague, limited to his subjective perception and understanding, and imbedded and tied to his history, culture, preference, social context and similar factors (Tarnas, 1993, pp. 396-397). Therefore, the crafted reality

is insufficient as it can offer only a fraction of knowledge about reality itself (Hedlund-de Witt, 2013, p. 76; Groethuysen, 1960, p. XI).

1.6 Summary and discussion

The main aspects from the previous pages will be gathered here to summarise the most important developments in the meaning of worldview. This chapter serves the purpose of highlighting aspects of the concept of worldview that will be essential in defining it as they form a foundational comprehension of the concept.

After the epistemological revolution in philosophy brought forth by Kant, the concept of worldview can be seen to signal a change in its focus of inquiry. It is a shift from "the content of thought to the activity of thinking, and from a found or given to a self-created order (Hedlund-de Witt, 2013, p. 75)". Moreover, it is a shift from bringing experience into unity with the world to comprehending the human mind that views the world. Key elements of this shift can be seen in the application of the term as described in the previous chapters. Kant defines worldview as an abstract structure, which exists prior to lived experience, whereas in Hegel's understanding of *Zeitgeist* worldview is by definition connected to its historic and cultural context, and part of the collective evolution and unfoldment of *Geist*.

The systematic worldview study in the work of Wilhelm Dilthey changes the way in which the concept is being applied as he influenced and shaped the way worldview is understood. The most important aspect of this conceptualisation is the notion that every worldview is shaped according to the same principles, which means that all worldviews have a common structure (Groethuysen, 1960, p. XI). Worldview is not merely a descriptive term, but a construct consisting of different interacting parts. Through the study of varying positions a typology of worldviews can be constructed (p. V). However, the task of the study of worldview is not the comparison and evaluation of different arguments according to pre-set criteria, but to gain and grow

an understanding of the fundamental set of beliefs, values and ideals expressed in every worldview (Dilthey, 1960, pp. 197-198).

Contemporary applications of the concept of worldview change the meaning of the concept further. Nevertheless, many aspects serve as a development of a similar understanding of worldview to Dilthey's conceptualisation. For example, the "intrinsic temporality of all understanding (Palmer, 1969, p. 117)" is being affirmed through the recognition of the limitations in ability and time within all comprehension and perception (Hedlund-de Witt, 2013, p. 70). Therefore, any given worldview can offer only a fraction of knowledge, which in turn makes the inclusion of multiple points of view and different modes of comprehension inevitable in order to achieve a more complete understanding (p. 76). Finally, the plurality of worldviews is further aggrandised through the promotion of disbelief toward all meta-narratives that absolute truth claims (Naugle, 2002, p. 174).

These insights about the development of the meaning of worldview build the background knowledge that is necessary for defining the concept. The sources quoted here will be used as a reference when they are congruent with the conceptual definition that is formulated in the next chapters. Additionally, conflicting applications and varying understandings derived from the aforementioned references will be mentioned where they are useful.

2. The meaning of worldview

The aim of this chapter is to provide a conceptual definition of worldview and depict what the concept entails. In order to achieve this objective, the first part explains why worldview is treated and viewed as a concept and is not merely defined as a term. Building on this understanding a conceptual definition of worldview is given, which serves as a guidance for the rest of the thesis. This definition is a preliminary one, that will be contrasted to specific examples in chapter *III. Worldview frameworks*. The second part of this chapter presents a distinction of forms and characteristics of worldview that serve as a further clarification of the conceptual definition of worldview.

2.1 Using a conceptualisation

The understanding of the semiotic triangle, as portrayed by Rousseau, Billingham and Calvo-Amodio (2018), will be used to give an explanation of the necessity of approaching worldview as a concept and not just as a term. The semiotic triangle is a basic model dealing with the meaning of words. To begin with, we speak about terms when we use specific words to refer to existing things or phenomena in our lived experience. This includes more than just material things, as emotions and beliefs are included too. "We think these things exist because we have concepts in our minds that represent them to us, and experiences that we can interpret using these concepts (p. 3)". Thus, the perception of things is meaningful when it can be tied to existing concepts. Adding to the meaning provided by concepts, they serve another role by functioning as a mental model of existing things or phenomena. Rousseau et al. (2018, p. 4) call these concepts "categories of thought", because they function as a guide for the perception and cognition in everyday situations.

The conscious connection of concepts with terms leads to the establishment of elements of language. This in turn brings forth different problems as terms can

have various meanings. By the use of the same term, different conceptual models can be invoked, which in turn can lead to misunderstandings or the inability to communicate effectively. In order to avoid errors in communication, a communal understanding about the meaning of terms is needed. Especially for areas of research and inter-disciplinary work a mutual terminology is needed. A communal set of terms limits the meaning of the words by agreeing on a constrained validity of concepts for each term.

The objective of a communal terminology is a functioning communication across different domains, and the ability to participate in discussion without addressing different meanings of the same terms or unwillingly misunderstanding stated matters. The constraints on the meaning of terms for the purpose of mutual understanding is to be understood as a temporary limitation for a specific context. The conscious restriction of the meaning of a certain concept by a definition is according to Rousseau et al. (2018, p. 5) a "category of analysis".

As already expounded upon, worldview as a term has been endowed with various meanings. For the specific aims of this thesis, necessary limitations need to be placed on the conceptualisation of worldview by selecting useful characteristics and dismissing contrary or irrelevant elements. An objective of the definition given in the next chapter is to offer a precise, albeit constrained, concept that can be differentiated from other concepts and is applicable to specific contexts.

2.2 Definition of worldview

Worldview has been studied in various domains of research which has led to a rich academic history. At the same time, this development has resulted in an arbitrary use of the construct and a multitude of formulations of similar ideas are being applied without any clear distinction between them (Rousseau, & Billingham, 2018, p. 3). Even more so, the concept is oftentimes used with an implicit assumption about its self-explanatory character, as if a consistent and wide-spread understanding of the nature of worldview would be the status quo, which is not the case (Koltko-Rivera, 2004, p. 4). These problems in the application of terminology are important for the study of the concept, because it shows the need for a precise and systematic definition of worldview for the purpose of this text, which is the task of this subchapter.

As a starting point, it is helpful to aim at giving a short and concise conceptual definition of worldview, as Schlitz, Vieten and Erickson-Freeman (2011b, pp. 223-224) formulate it: "A worldview combines beliefs, assumptions, attitudes, values, stereotypes, and ideas to construct complex conceptual frameworks that organize lived experience. Together these form a kind of scaffolding on which individuals can build a meaning system about their past, present, and future". This definition offers an insight into what building blocks form a worldview and it hints at the fact that the way these elements interact with each other is complex. What it does not explain is how this constructs incorporates all of these aspects and how they function together. Additionally, worldview is being referred to by two descriptions. First, worldview is the resulting conceptual framework that organises lived experience, and later it is described as a meaning system that addresses all three dimensions of time. While these varying descriptions may hint at some functions of worldview, it raises further questions about the nature of worldview and highlights the need for a more comprehensive definition.

The early concept given by Dilthey emphasised that worldviews offer an answer to the enigma of life (Dilthey, 1957/1970, p. 107), also called "life's big questions (Nagel 2015, p. 86)". A person's answers to these questions, their assertions about the world, are the worldview of that individual. Schlitz et al. (2011b) name six components that can serve as answers, namely beliefs, assumptions, attitudes, values, stereotypes, and ideas. In the widely-cited approach of Koltko-Rivera (2000, p. 2) and his study of worldview the building components of worldview are narrowed down to three elements. All three are different types of belief that address distinct dimensions of worldview and they may be descriptive/existential, evaluative or prescriptive/proscriptive (Koltko-Rivera, 2004, p. 5). This conceptualisation of worldview as a "set of beliefs (p. 5)" will be used from here on as an essential characteristic of the concept and it is consistent with a number of different approaches (Rousseau, & Billingham, 2018; Nagel, 2015; Giacalone, & Thompson, 2006). A further distinction between different types of belief encompassed in a worldview, and how they interact, will be the task of the chapter *II.3.2 Beliefs and belief systems*.

As already mentioned, worldviews are complex conceptual frameworks that organise lived experience. Rousseau and Billingham (2018, p. 3) note that "worldviews evolve as people try to integrate their knowledge, experience, and intuitions into a coherent framework they can use to make sense of their lives and make decisions about how to live and what to do". In this definition essential functions of worldview are highlighted and the formulation given by Schlitz et al. (2011b, pp. 223-224), describing worldview as a meaning system, is being addressed. Apart from the cognitive structure, worldview is formed through the experience from interacting with and relating to other persons (Nilsson, 2013, p. 74). This understanding of the function of worldview can be traced back to the systematic approach of studying worldviews by Wilhelm Dilthey and his emphasis on lived experience (Palmer 1969, p. 117). A consequence of this

conceptualisation is the emphasis of worldviews as meaning systems that encompass past experience. Simultaneously, present states and lived experience are constantly organised and incorporated in a worldview. Thus, decisions concerning the future are guided by the conceptual framework.

In this sense, worldview functions as an all-encompassing viewpoint, as a "world outlook (Maslow, 1970, p. 39)" from which an individual perceives the world. More than that, this perspective is the position from which one interprets the world and organises lived experience. In this sense, worldview is an active process of constant integration, adaptation and correction. On this account, the description of worldview as a "map of reality (Hiebert, 2008, p. 15)" is fitting, as it serves as a guiding and orienting framework.

As a summary, the conceptual definition as given by Koltko-Rivera (2004, p. 4, adapted from Koltko-Rivera, 2000, p. 2) can be used to comprise the described parts:

A worldview is a way of describing the universe and life within it, both in terms of what is and what ought to be. A given worldview is a set of beliefs that includes limiting statements and assumptions regarding what exists and what does not (either in actuality, or in principle), what objects or experiences are good or bad, and what objectives, behaviors, and relationships are desirable or undesirable. A worldview defines what can be known or done in the world, and how it can be known or done. In addition to defining what goals can be sought in life, a worldview defines what goals should be pursued. Worldviews include assumptions that may be unproven, and even unprovable, but these assumptions are superordinate, in that they provide the epistemic and ontological foundations for other beliefs within a belief system.

According to this definition of the concept, worldview entails a descriptive aspect that is constituted by a set of specific, fundamental beliefs. In the wider context of defining worldview as a map (Hiebert, 2008), and by likening it to an outlook (Maslow, 1970) or perspective (Naugle, 2002; Polanyi, 1958) the aesthetic aspect of the concept is emphasised. This understanding of the concept reflects Kant's formulation of worldview as a concept that describes the relation between reality and perception (Tarnas, 1993). Moreover, the aesthetic aspect points to the origin of the word and the meaning of the German word *Anschauung* (Duden.de, 2020), which comes from the German verb *anschauen* (Langenscheidt.com, 2020), referring to the act of looking at or seeing something. At the same time, worldview entails an explanatory, sense-making function. This second aspect is being pointed out in the definition when the concept is referred to as a complex conceptual framework (Schlitz et al., 2011b, pp. 223-224) that offers answers to life's big questions (Nagel, 2015) and continually organises lived experience (Rousseau, & Billingham, 2018). These aesthetic aspects and practical functions of worldview are understood to be essential parts of what constitutes a worldview, as the meaning system provided by a worldview manifests in the continual guidance of perception, understanding and decision-making.

The following chapters include conceptualisations of worldview similar or identical to this one. Any major discrepancies in the application of the concept are highlighted and mentioned, where necessary.

2.3 Distinction of forms

2.3.1 Personal and organised worldview

For further clarification a distinction between personal and organised worldview must be made to clarify different forms of worldview. To begin with, if a group of people accept the same worldview, then it becomes an organised worldview. According to Kearney (1984, p. 1) these kinds of worldview are termed "culturally organized macrothought". Organised worldviews offer answers to fundamental questions and by accepting a particular organised worldview that follower accepts these answers. It is usually assumed that organised worldviews develop over time and include some form of traditions, common values and ideals. Moreover, it is important to note that one common characteristic of organised worldviews is their logical coherency. A shared source of inspiration from which the central beliefs and tenets are derived from is often available and serves as a guideline for the followers of that particular organised worldview (Van der Kooij, De Ruyter, & Miedema, 2013). The last two aspects are not necessary for a worldview to be classified as an organised one, rather they are frequent characteristics. Religions are a prime example for organised worldviews. However, non-religious worldviews are frequently defined as organised worldviews as well, for example humanism (van der Kooij 2015, pp. 32-33) and communism (Árnason, 2003, p. 182).

Sometimes the terms "individual worldview", "personal philosophy (Rousseau, & Billingham, 2018, p. 3)" or "bricolage (Van der Kooij, 2015, p. 70)" are used synonymously to refer to personal worldview. The latter is used in the context of worldview by introducing the term 'bricoleurs'¹ to describe the individualisation and personal construction of worldviews without adherence to an organised worldview.

¹ 'Bricoleurs' was first used by Hervieu-Léger (2006) to describe the selection of different parts of multiple traditions, to construct a personal religious profile. The term was later adapted by van der Kooij to include non-religious worldviews as well.

Thereby, personal worldviews are heterogeneous, wide-ranging and can be distinct in their combination of composed parts, which is what bricolage describes. They can be fully independent of any organised worldview. At the same time, a personal worldview can also be based on an organised frame of reference and introduce key changes and individual adjustments. It is not bound to a organised frame of reference, if that organised worldview or key elements of that organised position are not accepted and incorporated in the personal framework.

2.3.2 Implicit and explicit worldview

A worldview of any given person can be accepted and followed by that person without formulating the components of that worldview. In that case their worldview is implicit. Vidal (2012, pp. 8-9) points out that an intuitive moral orientation and perception of the world combined with the lived experience of accepted behaviour is sufficient to sustain an implicit worldview.

The process of articulating a worldview, which necessitates a coherent formulation, correction and re-formulation of assumptions, facilitates constant adaptation and strengthening of the worldview (Taves, Asprem, & Ihm, 2018). By articulating the implicit worldview, the person is forced to correct wrong assumptions or adjust seemingly contradictory claims and beliefs. This process of articulating a worldview and transforming it from an implicit understanding to an explicit form produces a solidification of the worldview and introduces corrective change.

The questioning of beliefs and unexpressed assumptions by means of critical reflection and self-examination is a first step in formulating a worldview. As Vidal (2012, pp. 8-9) notes, it is a laborious task to articulate the own worldview that was accepted and followed implicitly and intuitively. This process can be facilitated through the selection and detection of role models. Campbell, Markley and Harman (1982, p. 3) describe this aided process of formulation as an identification of an "image of man". This image can reveal held assumptions about the nature of human

beings, which then can be examined and consequently accepted, changed or replaced.

It is important to make a distinction between implicit and explicit worldview when studying the concept. The approach needs to be adapted according to the form of worldview. Nevertheless, the form in which the worldview is manifested does not diminish other characteristics of it (Vidal 2008).

2.4 Characteristics of the concept of worldview

2.4.1 Inescapable and fundamental

The importance of the study of worldviews is exemplified by a central characteristic, which is that everyone has a worldview. The set of beliefs that constitute any worldview varies in content, but a fundamental set of beliefs is inevitable. The very notion of seeing through worldviews, in other words the aim of overcoming fundamental beliefs, proves to be unsuccessful as any attempt to comprehend the world, to organise lived experience, and to guide the decision-making process necessitates a set of presuppositions to operate. To illustrate this point, an example can be given. Thomas Henry Huxley rejected all theistic theories on the origin of life on the basis that only the "rigorous application (Daffern, 2018, p. 65)" of modern science is acceptable. However, the very reason for Huxley's rejection of theistic belief is grounded in yet another set of beliefs, albeit in his case an agnostic one that incorporates the belief that truth can be gained only by applying the methods of modern science (Huxley, 1889). In this, Huxley makes assumptions about how the world is. Huxley's rejection of non scientific epistemology is due to the limitation of his worldview, which cannot incorporate such an epistemology (Clausen, 1976). The attempt to evade a fundamental set of beliefs by accepting other theories that are ultimately based on another set of presuppositions proves to be of no avail. Rather, it is important to investigate the

underlying fundamental worldview components to understand their development, function and structure.

The fundamental beliefs that form a worldview are presuppositions that are essential to the understanding of reality. These beliefs may be unproven or unprovable, but they function as "epistemic and ontological foundations for other beliefs within a belief system (Koltko-Rivera, 2004, p. 8)". This aspect can be further elaborated by continuing with the aforementioned example of Thomas Henry Huxley's preference of modern science. Huxley's confidence in modern science can be based on assumptions about the relationship between a hypothesis and observations relevant for that hypothesis. Whether Huxley accepts Bayesian inference, Occam's razor, or any other explanation for the relationship between hypothesis and observation is not the essential issue at hand. In either way, Huxley ends up with the same fundamental problem, because all thinking necessitates a foundation, a starting point, or presuppositions. Cobern (1994, pp. 5-6) addresses this exact notion by saying: "To be rational, for example, simply means to think and act with reason, to have a reasoned explanation or justification for thought and action. Such explanations and justifications ultimately rest upon one's worldview presuppositions. Thus, worldview is about metaphysical levels antecedent to specific views that a person holds about natural phenomena, whether one calls those views commonsense theories, alternative frameworks, misconceptions, or valid science".

Another inescapable aspect of worldview is that the uncovering of a set of fundamental presuppositions does not reveal further things. The British writer C.S. Lewis (1947/2001, p. 31) articulated this problem: "It is simply no use trying to see through first principles [...] If you see through everything, then everything is transparent. But a wholly transparent world is an invisible world. To see through all things is the same as not to see". In order to organise lived experience, and build a meaning system to guide perception, thought and action, a foundation is needed.

This itself is based on belief, on presuppositions that can be seen through, but behind them nothing is revealed. Therefore, the way in which worldview analysis is approached is important to be considered. We can reveal and comprehend these underlying assumptions by recognising that everyone operates from a set of fundamental beliefs, without trying to overcome or escape these first principles.

2.4.2 Stable and dynamic

Each worldview strives towards establishing an increasingly more coherent structure (Rousseau, & Billingham, 2018, p. 4), which motivates the rejection of new fundamental assumptions that are in conflict with existing beliefs. More generally speaking, belief systems have a tendency of resisting change even when evidence arises that contradicts held beliefs (Rokeach, 1960). Worldviews function as stable set of beliefs, which it needs to be in order to be able to provide guidance and a frame of reference for life experience. Nevertheless, this does not necessarily imply that worldviews are rigid and fixed. Through the incorporation of new information and experience worldviews are subject to change, correction and adaptation (Cobern, 1994).

As already hinted at in parts of the definition given in previous chapters, worldview is a complex structure that is under constant revision due to the integration of its immediate context (Schlitz et al., 2011b; Rousseau, & Billingham, 2018). Consequently, information and experience that is compatible to existing fundamental beliefs can easily be accepted, but contradicting elements necessitate a balanced approach. A functioning worldview, having a certain degree of coherency, safeguards its structural order by rejecting elements that could lead to the collapse of the whole structure. As Rousseau and Billingham (2018, p. 14) formulate the dynamic aspect of worldview, it is "the way that the content of the components of a person's worldview change not only to accommodate new information but to strive toward coherence—that

is, to make sense as a whole". When overwhelming new information or experience confronts an existing worldview with different ideas to the existing ones, the integration of that new element can lead to a change of the whole worldview structure to ensure inner coherency. In the case of broader change on an organised level, the transformation of organised worldviews is frequently termed as paradigm change (e.g., Rousseau, & Billingham, 2018; Van der Kooij, 2016; Nilsson, 2004) , a concept commonly attributed to the work of Thomas Kuhn (1962).

The degree to which worldviews are open to change is in part dependent on the stage of development of a person. During childhood and early adulthood the fundamental set of beliefs is more likely to change in certain aspects (Gutierrez, & Park, 2015; Woodard, 2019; Armstrong, 2020). Even in later stages of life, when worldviews are generally more stable, the loss of someone or other traumatic events may cause change in the worldview system (Gutierrez, 2016; Kennedy, & Humphreys, 1994). The balancing act between the integration of incompatible, new information and experience, and the continual preservation of a coherent structure is to a large extent a subconscious, intuitive process (Danesh, & Clarke-Habib, 2007). Even the results of a reconciliatory process of balanced integration and change can be part of a subconscious process, and thus not change an implicit worldview to an explicit one.

2.4.3 Fragmented and non-rational

Beliefs that constitute a worldview are "assumptions gained gradually and organically from one's context (Bou Malham, 2017, p. 2)". Consequently, the set of fundamental worldview beliefs can be fragmented, as a commitment in one component is not directive for beliefs in other components. For example, someone might have theocentric ethical beliefs, but commit to a humanistic view in all other components of his personal worldview. Even though this personal philosophy may seem paradoxical and inconsistent, a worldview derived from gradual integration of information and experience can lead to a mixture of discordant elements from different aspects of life (Bråkenhielm, 1992, p. 13).

Cobern (1994, p. 6) addresses the fragmented nature of worldview by pointing out that any given worldview is primarily a "set of fundamental non-rational presuppositions on which [...] conceptions of reality are grounded". These presuppositions can be articulated and modified in such a way that a logically coherent conception of reality is achieved. The striving toward inner coherency of the worldview structure does not diminish its potential for including contradictory beliefs. As Hedlund-de Witt (2013, p. 79) puts it: "By 'logically coherent' I refer to the different aspects of worldviews relating to each other in a consistent, interwoven manner, meaning that they are interrelated to the point of forming an emergent, structured whole or system [...]. Thus, I am explicitly *not* referring to the idea that these worldviews would not contain any contradictions or paradoxical elements". With this, the consistent application of beliefs in an interrelating manner is addressed, which is to say that, for example, a specific human image is related to a specific view of society in an inter-relating manner, albeit maybe in a paradoxical way. The holder of a contradictory set of beliefs has the ability to order his presuppositions in a logically coherent manner. Nevertheless, the coherency of a worldview does not change the fact that a fundamental set of beliefs is a cluster of non-rational assumptions that form the foundation for other beliefs.

2.4.4 Relativity and pluralism

The concept of worldview, as described in previous chapters, implies a dynamic function of the construct. The sense-making function of worldview that is achieved by organising lived experience, as well as the guiding of decision-making in all aspects of activity, highlight this constantly adapting function of worldview. Addressing this, Vidal (2012, p. 12) points out that any approach to explore different worldviews and contrast them is relative in the sense that worldviews are compared to each other. The relativity of the study of worldviews is due to the inescapable nature of worldview. Every individual is coming to this field of research with his own set of beliefs that form his or her particular worldview. Even if those beliefs would conform to what is considered to be a scientific frame of reference, the very preference of objective criteria over subjective ones is based on mere belief (p. 12). This preferences or worldview presuppositions show the inherent relativity in the approach of studying worldviews. As a further illustration of this aspect, an example given by Cobern (1994) can be used. Charles Percy Snow (1964), who addressed the breakdown of interaction between the sciences and the humanities, introduced the metaphor of "two cultures" to show the difference between the two modern research domains. Rather than advocating a process of reconciliation, perspective-taking exchange, or steps toward approximation, Snow failed to realise the relativity of the dissimilar outlooks on life and distinct views of the world. Snow insisted on the primacy of the scientific view, as he "fully accepted the positivist position that science is the only truly verifiable and self-correcting mode of inquiry [...] and to scientists we must look. For Lord Snow, reconciliation meant the absorption of the humanities by the sciences - scientists know that science is rational, humanists only believe that the humanities are (Cobern, 1994, p. 8)". In this instance, Charles Percy Snow approaches the debate between different research domains from his positivist position, which he assumes to be correct. Certainly, his worldview presupposition is

a possible position from which the debate can be viewed, but it is important to acknowledge the variety of possible positions that can be taken.

The mention of relativity leads to a differentiation that needs to be made, because relativity does not denote relativism. "From a dialectical [...] perspective, a philosopher can explore and understand a plurality of worldviews. But to elaborate his first-order philosophical position, the same philosopher will still consider that some worldviews are better objectively, subjectively or socially than others (Vidal, 2012, p. 12)". Of course, the question regarding what constitutes a better worldview is a problem on its own. However, it is important to highlight the worldview pluralism that becomes evident from the relativity of the study of worldviews. Worldviews are often competing frames of reference that offer irreconcilable views of reality. An aspect that is revealed by this is the existing plurality, in the sense that there is a multitude of competing worldviews.

3. Differentiation from other concepts and terms

The following chapter aims at showing possible differentiations between similar terms and concepts. This is done with two goals in mind. First, this prevents the wrong application of terminology and second, the differentiation is introduced to guide the following review of literature by reinforcing the understanding of the concept of worldview.

A number of descriptions have been used synonymously to describe different functions of worldview. In the chapter regarding the conceptual definition of worldview it has been referred to as meaning system, conceptual framework, world outlook, map of reality and frame of reference. All of these terms are similar in their meaning and are used as synonyms or to highlight different aspects of the concept of worldview. In contrast to these terms, beliefs and belief systems, paradigm, religion and ideology will be differentiated and expounded upon in the following sections.

3.1 Beliefs and belief systems

Worldview has been defined as a set of beliefs, however, a distinction between different types of belief has to be made, as not all beliefs qualify as worldview beliefs. A distinction between worldview beliefs and other forms of belief can be made by discerning the centrality of a belief to an individual and its relevance and applicability across different contexts (Cobern, 1994, p. 4). These worldview beliefs can be called fundamental, as they can build the epistemic and ontological foundation for a whole belief system (Koltko-Rivera, 2004, p. 4).

The distinction between beliefs made by Koltko-Rivera (2004, pp. 4-5) is drawn from Rokeach (1973, pp. 6-7), who distinguishes three types of beliefs, namely descriptive/existential, evaluative or prescriptive/proscriptive beliefs. Firstly, descriptive or existential presuppositions have the characteristic of implying that they are objectively either true or false. They address things thought to exist in the world, things that address the nature of knowledge, or what can be done. Secondly, evaluative beliefs are used to describe and evaluate human beings and actions, wherein something is judged to be good or bad. Lastly, prescriptive or proscriptive beliefs name the means or ends of action considered to be desirable or undesirable. When we speak about values, only the last type of belief is being addressed.

All of these three types of beliefs are called worldview statements, but not all descriptive/existential, evaluative or prescriptive/proscriptive beliefs classify as worldview statements. The inclusion of beliefs as part of a worldview is dependent on their fundamental function in the belief system. In the conceptual definition of worldview by Koltko-Rivera (2004, p. 4), beliefs are referenced as unproven or even unprovable assumptions. An aspect important to the conceptual nature of worldview is that beliefs, which are not bound by rationality, provide the foundation

for the perception of the world and the selection of valid and relevant knowledge about reality (Cobern, 1994, p. 6).

A belief system can be formed and changed over time through the continual adaptation to the immediate context and through learning from experience. Nevertheless, the centrality of the beliefs that form the worldview leads to the continual sustaining of held presupposition, which in turn means that worldview beliefs have the tendency to be retained (p. 10). New beliefs are accepted according to their coherence with other fundamental beliefs (Thagard, 1994). That is not to say that contradictory assumptions cannot be found in the same worldview. Rather, the individual holding the beliefs finds his views to be coherent, or willingly accepts and deals with competing beliefs.

3.2 Paradigm

The most prominent author dealing with the concept of paradigm is Thomas Kuhn with his book *The Structure of Scientific Revolutions* (1962). The term is the English rendering of the Greek *paradeigma*, which describes "pattern, example or sample (Hedlund-de Witt, 2013, p. 20)". Kuhn uses the concept of paradigm to describe prevalent patterns of thought and the dominant set of practices applied within a scientific field of research in a given period. Thus, paradigm not only describes the prevalent pattern of thought and practice in scientific literature, but once a paradigm is adopted, it governs the scientific discipline by disfavours and dismissing contrary positions. At the same time, the term is used to describe the dominant pattern of thought for the whole of society in a time span (Kuhn, 1962).

In relation to the concept of worldview, the application of the term *paradigmatic worldview* has been suggested (Rousseau, & Billingham, 2018). It is used to refer to organised worldviews and equals a synonymous use. Despite this usage of paradigm, the subdivision between personal and organised worldview is

favoured for this text. Nevertheless, the application of the concept of paradigm to the study of worldview shows an existing overlap in meaning between the two concepts.

3.3 Religion

The differentiation between religion and worldview, or lack thereof, is part of an ongoing debate. To begin with, both concepts are frequently defined as a set of beliefs and many authors argue that this aspect is enough to expand the meaning of religion to comprise all worldviews (e.g., Keller, 2011; Peterson, 1999; Hunter, & Nedelisky, 2018). Simultaneously, this broad meaning of religion renders the term meaningless. Instead, religion can be viewed as a framework that covers the supernatural or theistic dimension of life and is thus differentiated from worldview. For the purpose of this text, religion will be understood as a form of organised worldview.

As already mentioned in chapter 2.2.3 *Personal and organised worldview*, religions are a prime example of organised worldviews. They develop over time and include different kinds of tradition. Moreover, religions communicate a set of values and ideals that is often accompanied and communicated through a shared source of inspiration. Therefore, they can be viewed as a subset of organised worldview. Religions manifest all functions of worldviews, but in most cases further elements are added to sustain that frame of reference. These additional beliefs serve as a foundation for the whole belief system, for example the belief in a deity, or the belief in an absolute source of meaning, for example the Bible.

3.4 Ideology

Similar to the debate concerning religion, the differentiation between ideology and worldview is part of ongoing discussion. Åhs, Poulter and Kallioniemi (2019, p. 205) argue that a contrast between the worldview of an individual that organises lived experience and the organisational entity of worldview, which can be called ideological, is to be introduced. In this understanding the terms *organised worldview* and *ideological worldviews* are used as synonyms. A further substantiation of this comprehension of terms is brought forth by Vidal (2012), who uses ideology to parallel the use of the concept of worldview in a social or cultural context, by which the study of worldview in the social sciences is referred to. In essence, both of these conceptions view ideology as a collective worldview through which the social dimension of the concept of worldview is being emphasised.

A description of the concept of ideology based on the aspects that characterise an organised worldview can expound its understanding. First of all, ideologies can develop over time and can include traditions, but they do not have to. Additionally, a common source of inspiration is often found in ideologies. These texts serve as a guide for the followers of that system and have the function of retaining the intended objectives. An example for such a text is the *Communist Manifesto* (Engels, & Marx, 2008), which is a guide for ideologies described as Marxist. Regardless of the aforementioned aspects, which are all possible within an ideology, but not necessarily required, an ideology includes a set of common beliefs. They can be derived from an accepted text or person, as laid out in the prior example.

A distinguishing aspect of ideology can be found in its fixation on a specific set of beliefs that is to be followed. Independent of the specific ideological beliefs, the flexibility and adaptability of the ideology is limited and conditioned by the predetermined set of beliefs. In contrast, one of the main functions of worldview is to organise lived experience in order to sustain sense-making and guide action.

Consequently, worldview is constantly exposed to the necessity of change, correction and adaptation. In this text, ideology is understood to be a possible form of organised worldviews. Still, it should be noted that not all ideologies qualify as organised worldviews. If they are too limited in significance for lived experience or if the common beliefs, values and ideals of any given ideology are too vague to be considered a coherent set that can be followed, then the specific ideology cannot be classified as an organised worldview.

III. Worldview frameworks

1. Introduction

Worldviews have always been compared to each other. Whether it is between religious and secular views, between different religions, scientific schools of thought, or various philosophies, discordant perspectives are being examined and contrasted. For this chapter the main objective is to highlight approaches for modelling and studying worldviews. The different modes of conceptualisation and classification of worldviews will be discussed to highlight the validity of the models with their respective limitations and challenges.

In order to answer the main research questions of this chapter, the role and function of a worldview model need to be addressed. Furthermore, a classification of different worldview frameworks will be introduced to add a more comprehensive overview of available approaches. As already mentioned in previous chapters, approaches in worldview analysis and comparison can be found in various fields of study. The selection of relevant frameworks will be based on the definition presented in the previous sections, their application of a current, philosophical approach and their relevance for ethics education.

1.1 Definition

The central term that necessitates a definition is worldview framework, oftentimes referred to as model of worldviews (Oldfield, 2019, p. 11) or worldview scales (Woodard, 2019, p. 60). Worldviews answer the questions dealing with the most fundamental questions of life, offering a solution to the enigma of life (Dilthey, 1957/1970, p. 107). The study of held assumptions can be limited to the individual due to the complexity and peculiarity of the fundamental set of beliefs that form a worldview. However, there are common elements and recurring assumptions that can be grouped together to form a category. As an example, in the typology of the three basic worldviews by Wilhelm Dilthey (1911) the worldview of *Naturalism* can be contrasted to the perspective advanced by *Objective idealism*. It is undisputed that not all naturalists have the same outlook on reality. However, the worldview framework by Dilthey names the common assumptions that characterise the specific type of worldview that is named within this model *Naturalism*. Based on this understanding, categories of different worldviews are defined with the aim of clarifying what unites individuals in a given perspective and what differentiates them from other world outlooks. The worldview framework has little explanatory power, if it does not successfully include the majority of individuals aimed to be addressed by the model. "In essence, while the worldview is an overarching understanding of the world, the worldview model is an overarching understanding of worldviews (Oldfield, 2019, p. 11)". Ultimately, the objective is to provide a model that enables the classification of worldviews, which then facilitates the study of worldviews common to specific groups.

An important distinction can be made by looking at the way in which the study of worldview is being approached. The examples given in the previous paragraph address only one of the two main types of worldview model. The two most prevalent approaches are called categorical and dimensional worldview models (Koltko-Rivera, 2004), the former being the approach used by Wilhelm Dilthey. To further

elaborate, the emphasis of different types of worldview that can be distinguished from another is called the categorical approach. Depending on the author, the specific worldviews can be defined as fully distinct categories, or belief categories can differ within a given worldview (Oldfield, 2019). The categorical approach has been preferred by philosophers in studies of worldview due to their comprehensive nature (Nilsson, 2007, p. 40). The second approach, the dimensional model, aims at explaining the parts that constitute a worldview. This approach delineates the areas in which beliefs are held and what role that dimension plays for the whole structure.

1.2 General considerations

It is challenging to study the concept of worldview, and even more so, to empirically investigate it without an established scientific theory or consensus on the meaning of the concept (Hedlund-de Witt, 2013, p. 38; Koltko-Rivera, 2004, p. 4). Moreover, the attempt to model worldviews in a coherent framework is made difficult by the fact that they tend to be fragmented, and sometimes form an incoherent set of beliefs (Oldfield, 2019, p. 11). Another general challenge is the way in which worldview models are being approached and the distinction between dimensional and categorical approaches. While the dimensional approach is used to investigate different areas of the worldview and their interconnecting function and coherence, a dimension can also serve as a category. According to Nilsson (2007, p. 40): "If the dimensions are considered to be important enough and sufficiently permeative of the worldview, the entire worldview can be viewed through an aspect that unifies the dimensions". As an example the second worldview model presented in this chapter, the Core-based Worldview model, puts an emphasis on tendencies of action and behaviour as the central element of classification. Thereby, fundamental beliefs that concern desires, and beliefs that guide behaviour are used to study worldviews (Oldfield, 2019). Certainly, these kind of approaches can lead to various categories of worldview with limited significance and convoluted meanings. At the same time, worldview frameworks, such as the Core-based Worldview model, can

serve specific purposes of inquiry by putting an emphasis on a limited number of components.

The inaccuracy of worldview models leads to difficulties in clearly depicting and distinguishing between categories. This is in part explained by the dependency of the conceptualisation of the model on the worldview of the author (Nilsson, 2007, p. 39; Vidal, 2007, p. 5). A consequence of this aspect is that these models can reflect aspects about the theorists research objectives, personality and current cultural, economic, social and even historic contexts. In order to avoid worldview-dependent conceptualisations, various approaches from mixed fields of research can be taken into consideration to reveal a more complete understanding of the concept of worldview.

1.3 Contemporary approaches

There are a number of notable worldview models that cannot be addressed in a more comprehensive manner due to limited space, but are noteworthy contributions to the study of worldview. The categorical approaches of Sire (2014) and Hedlund-de Witt (2013) offer an extensive insight into various types of worldview and different methods of differentiation. Additionally, the dimensional approach by Vidal (2007; 2008; 2012), which is based on the works of Aerts D., Apostel, De Moor, Hellemans, Maex, Van Belle and Van der Veken (1994) and Heylighen (2000), gives an outline of the structure and function of worldviews. This model offers mentionable insights into the limits of the concept and its models by being able to provide descriptions for various contexts, such as analysing bacteria with the proposed worldview model (Vidal, 2007). Other major contributions to this field of research can be found in psychological literature. The widely-cited work of Koltko-Rivera (2004), as well as approaches by Nilsson (2007; 2018) and Woodard (2019) are relevant contributions to this field of research.

2. Dimensional and categorical models

The following worldview models presented in this chapter have a philosophic focus of inquiry. First, the *Worldview Inquiry Framework* by David Rousseau and Julie Billingham (2018) is a dimensional approach that is designed to be applicable across different methodological contexts. Second, *The Core-based Worldview Model* by Edwin Oldfield (2019) is a categorical approach that aims at addressing methodological difficulties in differentiating between categories of worldview by introducing a new approach.

The selected worldview models will be presented and discussed by examining their research context and applied methodologies for the proposed frameworks. Thereafter, the structure of the models and their intended form of application are presented by giving a high-level overview. Limitations of the models, as well as other possible uses and extensions the frameworks are discussed in the last sections of each subchapter. The focus of this text and brief depiction of the selected frameworks can not do justice to the whole work of the authors, but satisfy the objectives of this thesis.

2.1 Worldview Inquiry Framework

David Rousseau and Julie Billingham (2018) put forward a dimensional model, the *Worldview Inquiry Framework*, with the main objective of providing a consistent conceptualisation of worldview that can be applied across different domains of research with varying methodological approaches. This is achieved by analysing existing frameworks for their comparability, similarities and discrepancies. Thereafter, the *Worldview Inquiry Framework* is structured to function as a comprehensive model that comprises all analysed models in an applicable way to function as a "consistent set of concepts for formulating worldview questions and documenting beliefs (p. 8)". This model is specifically proposed to offer a solution to

the fragmented and inconsistent conceptualisations of worldview by being designed to be applicable to any academic field of research.

2.1.1 Context of systems philosophy

The Worldview Inquiry Framework is part of the research field of systems philosophy. The larger academic field known as systemology comprises all systems models in an academic discipline (Bunge, 1979; Rousseau, & Billingham, 2018). For systemology, the task of defining the nature of worldview is essential in fulfilling one of the main objectives of systems philosophy, namely the articulation of a worldview based on scientific principles through the application of the systems paradigm (Laszlo, 1972, p. 12). The aim of the resulting worldview, for example the proposed "General Systems Weltanschauung (Elohim, 2009)", is to be applicable across scientific, philosophic and social contexts. In pursuit of this task, systems philosophy has become an interdisciplinary research domain. For a more specific investigation, David Rousseau and Julie Billingham (2016) study worldview for the purpose of establishing a trans-discipline with consistent principles, definitions and applications of systems.

In order for systems philosophy, as the philosophical element of systemology, to be able to provide a comprehensive worldview, first, the role, function and structure of worldview need to be studied. The development of a systems worldview is insofar a key objective as worldviews provide "the context both for adequate modelling of problems and for appropriate selection of solutions (Rousseau, & Billingham, 2018, p. 1)". An inadequate, narrow, or inconsistent understanding of the concept hinders the ability of interdisciplinary collaboration, and thus limits the effectiveness of systemology. The conceptualisation of the structure of worldview denotes that it is a system, for which the research approach of systemology contains the appropriate methodologies to study different aspects

of worldviews. Furthermore, the interdisciplinary perspective allows for the development of a more comprehensive, unified conceptualisation.

2.1.2 Objectives and methodology

The Worldview Inquiry Framework has four main objectives designed to address an equal number of problems and challenges identified by Rousseau and Billingham (2018). First of all, the model aims to provide a consistent and comprehensive conceptual understanding about the aspects of worldview and the meaning of the concept. Second, it offers a method for the study of worldviews that is applicable across various research contexts. Third, an awareness of the research worldview can be obtained to limit the influence of the researcher on the focus of research, or at least restrict the affect deriving from the dominant research worldview on the research itself. Last, the framework enables one to frame results in a uniform way, making research results more comprehensible across different disciplines.

As the authors state, the Worldview Inquiry Framework is intended to "govern the process of eliciting, documenting, and comparing the worldviews (p. 1)" by comprising existing frameworks and formulating the new model to be applicable for all fields of research. For this, a selection of approaches to the study of worldview are analysed to identify the most relevant worldview components. Then, the components are expanded into subsections where all related questions are grouped and a set of concepts that offer answers to the worldview questions can be elaborated. Rousseau and Billingham offer suggestions for possible concepts that are relevant components of worldviews. As an example, for the ontological component some key questions are: "What kinds of substances exist most fundamentally? What provides the conditions for the possibility of the existence and nature of the world? What grounds the existence of reality (pp. 10-11)?" Possible concepts can include ultimate atoms, God, consciousness, Tao, quantum vacuum, etc. The suggestions made by the authors of the Worldview Inquiry

Framework are not intended to serve as an exhaustive list of all relevant answers that can form a worldview belief. Rather, the proposed concept list is compiled to demonstrate the function of the model. For the proposed, structured concept map of the Worldview Inquiry Framework (p. 11), see Appendix A. Rousseau and Billingham address the future need for the development of a standardised set of concepts that serve as a consistent and viable list for answering worldview questions.

2.1.3 Worldview components

The study of worldview has its focus on the individual holding the set of fundamental beliefs that is being analysed. That specific worldview offers answers on how that person should live, what is important and good. Even more so, the worldview can provide a guidance through "all life's potential scenarios (Rousseau, & Billingham, 2018, p. 14)" by offering beliefs regarding all areas of reality. The Worldview Inquiry Framework names seven components that classify fundamental beliefs. However, there are only six types of belief, namely ontological, metaphysical, cosmological, axiological, praxeological and epistemological. The seventh component in the framework is due to the division of the cosmological dimension into two components, "Cosmology of nature" and "Cosmology of persons".

The order in which the worldview inquiry questions are to be pursued is not predetermined. Rather, the objective of the inquiry determines the order that is suited for the specific context. Additionally, depending on the information that is sought in any given analysis, the framework may be pursued only in part as to fulfil the desired objectives. The seven worldview components are explained in the Worldview Inquiry Framework by providing key questions, content scope and relevant concepts. Again, these aspects are explanatory in scope, not exhaustive. Furthermore, mentioned options are not to be taken as competing beliefs, as this is not the objective of the

framework. Rousseau and Billingham (2018, p. 6) highlight the relativity of worldview analysis when saying: "The plausibility or coherence of alternative options are not here at stake, and can only be assessed in the light of beliefs in other components". Table 1 provides the seven worldview components, with a selection of possible key questions, scopes and examples as presented by Rousseau and Billingham (2018, p. 7).

Worldview Component	Key Question	Content Scope	Example of Relevant Concepts
Ontology	What kinds of substances exist most fundamentally? What grounds the existence of reality?	Theory about what exists most fundamentally; Models of identifying characteristics	Space, time, matter, minds, God, Akasha, Apeiron, consciousness
Metaphysics	What is the nature of the fundamental existents?	Theory about the powers, limitations and dynamics of what exists and what is possible given the ontology	Energy, lawfulness, real/imaginary, concrete/abstract, natural/supernatural
Cosmology of Nature	What is the nature, origin, developmental history and potential of the natural world?	High-level theory about the origin, history, current state & activity, future and destiny of nature	Big bang, creation, evolution, expansion, heat death, transcendence
Cosmology of Persons	What is the nature, origin, developmental history and potential of human beings?	High-level theory about the origin, history, current state & activity, future and destiny of human beings	Evolution, reproduction, development, will, agency, freedom, rationality, intentionality, wisdom
Axiology	What is important and why? What makes something 'good'?	Theories about what is good or important and why	Values, ethics, morality, aesthetics, social construction, utility theory
Praxeology	How should we live? What gives action meaning? What are our purposes and how can we achieve them?	Theories about what is meaningful or purposeful action and why. Action principles and theories about agency, freedom and responsibility	Free will, choice, agency, freedom, responsibility, duty, best practice
Epistemology	What and how can we know? What not and how not?	Theories about what kinds of knowledge are possible and how to gain knowledge	Science, sacred texts, cultural authors, intuition, mystical revelation, experience

Table 1: Components of the Worldview Inquiry Framework

A point of contention in the proposed worldview components of the Worldview Inquiry Framework is the distinction between metaphysics and ontology. Rousseau and Billingham (2018, p. 6) acknowledge that in philosophical literature the division is sometimes seen exactly the other way around, or is dismissed altogether as being unnecessary. For the Worldview Inquiry Framework, the component regarding ontology addresses in its essence what exists at the most fundamental level of reality. Building on that component metaphysics aims at inquiring about the nature of the most fundamental existents. The same division can be found in the work of Willard Van Orman Quine with his ontological questions dealing with what entities exist and the metaphysical aspect elaborating what those entities are (Quine, 1948). The same division is used by Thomas Aquinas in *Summa Theologiae* to address first, the existence of God, after which the question regarding his nature follows intuitively (Varzi, 2011). To generalise the example given by Aquinas, Achille Varzi eloquently accentuates the wider applicability of Aquinas' distinction between ontology and metaphysics by stating: "what goes for God goes for everything (2011, p. 2)".

The categorisation derived from the worldview components and the concept map can provide the foundation for a model of interaction between the components within the conceptual system. Rousseau and Billingham (2018, p. 13) present a systems model to offer further insight into possible ways in which worldview can function and how they can be structured. But, it must be borne in mind that the proposed conceptual system and the specific interrelating aspects illustrated in the system necessitate further investigation and integration in existing research.

2.1.4 General Inquiry Framework

Rousseau and Billingham (2018) attempt to widen the applicability of the Worldview Inquiry Framework by generalising the existing method of inquiry. The resulting framework, named General Inquiry Framework, has the main purpose of providing an approach for exploring information categories across different contexts. Both frameworks utilise the same structure with the same components. Even though the generalised framework is derived from the Worldview Inquiry Framework, the authors point out that the latter is a special form of application of the former (p. 17).

While the individual is the focus of worldview inquiry, the generalised framework uses more general terms, "subject of interest" and its "context", to describe the focus of inquiry. The six types of belief are applied to the General Inquiry Framework by retaining the classification of six types in seven components. As the authors argue: "Knowledge is "warranted true belief," i.e., a belief counts as knowledge if it is believed, if what is believed is true, and if it is believed for valid reasons. [...] From this we can infer that there are potentially six kinds of knowledge one could have about reality, or any subset of reality, and thus potentially six kinds of knowledge one could seek about any actual situation (14)". Based on this assumption, the general framework organises these main kinds of knowledge that are relevant for any context of inquiry.

The General Inquiry Framework aims to be applicable to various inquiry processes, such as problem solving, product design, fundamental research, and of course worldview analysis. As the authors put it, it is intended "for gathering information in any context where there is uncertainty, risk or ambiguity (p. 14)". For a more detailed description of the components for the General Inquiry Framework and how they are derived from the worldview components (p. 15), see Appendix B. The application of

the General Inquiry Framework to the context of ethics education will be the task of the chapter *IV.3.3 Applying the General Inquiry Framework*.

The application of the generalised framework can be best explained by providing an example of a specific inquiry, which will be done by using the study of types of rock, specifically quartzite, as the subject of interest. In this case, metamorphic rocks are the context of inquiry and geology is the area of study. The core concepts of geology provide the necessary characteristics to determine the appropriate way of inquiry that can provide meaningful insight for the components of ontology and metaphysics. The "Ontology of geology" can provide information component questions, like the following: What variety of geological entities exist, and what features and attributes identify them? "Metaphysics of geology" can pose inquiries such as: What are powers and limitations of kinds of geological entities, and what is the nature of the entities? The component concerning cosmology is divided into the cosmology of the context, in this case "Cosmology of metamorphic rocks", and cosmology of the subject of interest, namely "Cosmology of quartzite". Relevant component questions for the former can be: How are metamorphic rocks organised and how did this mode of organisation come about? The following questions can be suitable for the latter: What are the defining attributes of quartzite? Next, "Axiology of quartzite" with information component questions like, what is the importance of quartzite's existence, and why does it matter what it is? "Praxeology of quartzite" follows with inquiries, such as: What functions can quartzite perform, and what are possible fields of application? What is the purpose or relevance of its abilities and attributes? By what mechanisms are these outcomes achieved? The final component is "Epistemology of geology, metamorphic rocks, and quartzite", which comprises questions such as: What can we know about the subject of interest and its context? What methods can reveal this information? How can we assess the comprehensiveness and credibility of this information?

The example illustrates how the general inquiry components are using different foundational concepts to provide information for their respective areas of inquiry. Specifically, ontology and metaphysics use the wider area of interest as the focus of research, while cosmology, axiology and praxeology relate to the specific subject of interest. A further distinction has to be made due to the two types of cosmological inquiry components, as the second component regarding cosmology refers to the context of the subject of interest. The last component, namely epistemology, can be applied to address all areas of inquiry, if this approach is suitable for the specific context. In all instances, the context of the inquiry is crucial in deciding which components and in what order they are to be used. Additionally, the questions given in the example are not an exhaustive list of relevant inquiries, rather only illustrative of possible formulations for the specific context in question.

2.1.5 Limitations and potential

Whether or not the General Inquiry Framework is applicable in all contexts of inquiry with uncertainty, risk or ambiguity is to be seen in time through research regarding the usefulness of the framework and its effectiveness in producing relevant information. Additionally, work is still needed to clarify the proposed concept map in order to have a clear and practicable list of concepts.

As a comprehensive model, the Worldview Inquiry Framework offers an interesting contribution to this field of research. It manages to integrate different proposed components from a number of models, and thus attempts to take into consideration past studies of worldview. If accepted and successful in application, the Worldview Inquiry Framework could provide much needed middle-ground to a fragmented understanding of worldview. Further potential can be found in the ability of using the Worldview Inquiry Framework to gain information regarding the implications of new research and theories, and their relation to prevalent worldviews (Rousseau , &

Billingham, 2018, p. 3). Moreover, the generalised version of the worldview model and its applicability to any field of inquiry is a big extension of the scope and potential of the framework.

Based on a refined concept map, with a clearer and universal list of concepts, a classification of organised worldviews could be introduced by grouping components that belong together. Of course, such a classification would limit the applicability of the framework for fragmented and incoherent worldviews as those systems would not fit in any category of organised worldviews. Yet, a classification based on the Worldview Inquiry Framework could be seen as a separate model to ensure the adequate application of the framework proposed by Rousseau and Billingham.

2.2 The Core-based Worldview model

The framework proposed by Edwin Oldfield (2019) has the aim of providing a more concise method to differentiate between different worldviews. It is a categorical approach to the study of worldview, with the research background being philosophy of religion. The objective of the Core-based Worldview model is to provide a better method for the classification of worldviews. This is achieved through the identification of fundamental beliefs that concern tendencies of action and decisions of individuals (Oldfield, 2019, p. 2). Worldviews are not contrasted by plausibility, or worth, as the aim of the study is not to make value judgments based on a set of requirements. The latter approach can be seen in the philosophical method proposed by Clement Vidal (2007).

Oldfield's model is a response to the Integrative Worldview Framework (Hedlund-de Witt, 2013) and aims at addressing shortcomings of that model. The biggest challenge for the Integrative Worldview Framework is that empirical results show that a fourth of all respondents do not fit any of the four main categories. They are assigned to a fifth category, a mixed one. This fifth type of worldview serves as an

allocation of misfits. All participants that do not adhere to the categories of the model are thrown together into the last category. As Oldfield (2019, p. 14) puts it: "it is probably not the case that these people have "mixed" worldviews, rather it is only a failure of the model to capture them". Additionally, the postmodern and integrative worldviews show a weak reliability of scales with low levels of Cronbach's alpha, and consequently low distinction levels between the postmodern and integrative worldview categories (De Witt, de Boer, Hedlund, & Osseweijer, 2016, pp. 107-108). Therefore, Oldfield sees three out of five given types of worldview in the Integrative Worldview Framework as unreliable and inadmissible. The core-based methodology aims at addressing these problems of categorisation by changing the approach and focusing on a main core of the construct, and thus allows for fragmented sets of worldview beliefs.

2.2.1 Background

Oldfield (2019, p. 5) argues that the incompatibility of existing worldview theories is due to the wrong approach to the categorisation of worldviews. When a model is built, first, the definition of the concept is used to delineate the fundamental aspects that need to be comprised. The essential elements can be formulated as answers to a set of questions, also called "life's big questions (Nagel, 2015, p. 86)". From this, the categories that form organised worldviews are determined through differing methods to form a categorical worldview model. However, with this approach it must be borne in mind that basically the same questions are used to explore personal worldviews, which means that categorisations based on this method are a mere generalisation of individual answers to a set of organised worldviews. This generalisation is, according to Oldfield (2019, p. 4), one of the main problems in the study of worldview and the reason for inaccurate, unreliable models and an explanation for the lack of consensus across disciplines. Despite these aspects, Oldfield (p. 12) points out that current worldview models serve as good explanatory foundation for the concept and work well for inquiring about personal worldviews.

Yet, the problem of categorisation is unresolved in current models, resulting in inaccuracy and limited applicability.

Instead of the common approach, Oldfield proposes a differentiation based on the core of a worldview. With this method the most important characteristic of a worldview is used to identify categories of worldviews. The core is the element within a worldview that has the highest explanatory power. While this approach is not the most widespread in contemporary research, it can be found in earlier studies. For example, Jaspers classification of worldviews is oriented along how human beings seek security from existential reality, that is from experiences of suffering, guilt, shame and ultimate reality of impending death. Based on differences in dealing with these situations Jaspers names three categories of worldview. The first type is marked by scepticism or nihilism, the second focuses on the finite by becoming aware of one's own limitation, while the third type of worldview orients toward the infinite to cope with the existential reality of life. Another example for a classification along a central element of worldview can be found in Dilthey's typology of worldviews that classifies worldviews based on their answers to metaphysical questions about action, fate, meaning, and the origin and end of life. Ultimately, Dilthey presupposed that existential reality, with the inevitability of death and suffering, can be adequately answered within worldviews. His resulting categorical model names three worldviews that emphasise the dominance of body, the dominance of mind or the interdependence of body and mind (see Naugle, 2002; Nilsson, 2007).

2.2.2 Objectives and methodology

Oldfield makes use of different philosophical theories to illustrate the functions of the Core-based Worldview model and to argue for its viability. The positions stated include interpretationism, dispositionalism and representationism. While the theories of belief are used to investigate belief, they are not the method used to put together the model. Rather, the theories function as a theoretical background for the implementation of the framework.

Oldfield uses the concept of a core of worldview as described by Dmitry Leontiev (2007) in his study of worldview structures. There, the application of the Ultimate Meanings Technique serves as key element of understanding of the concept. According to this approach, worldviews have four aspects, namely content, value, structure and function. All aspects aim at explaining the way worldview beliefs are ordered and differentiated. Content is used to describe factual beliefs, while value addresses axiological beliefs concerning what is important and good. The structural aspect deals with the coherency of beliefs and how it can be achieved. Lastly, the functional aspect looks at how worldview are manifested through actions and behaviour. The central question regarding the fourth aspect deals with instances when a person acts in accordance to held beliefs, or when beliefs are deemed irrelevant and dispensed with.

Leontiev's approach is used to distinguish between different forms of belief. Beliefs that concern desires and beliefs that guide behaviour are called core beliefs. All other forms of belief are summarised as adiaphora, meaning non-core beliefs that are irrelevant for the differentiation of worldviews (Oldfield, 2019, p. 21). Adiaphora form a part of each worldview, but unlike core beliefs they do not guide action and are not decisive for decision-making. The objective of this distinction is to provide an easier classification and a more informative categorisation concerning the most influential elements of worldview.

The core-based method is designed to be less comprehensive, but more concise. Other worldview models, like the one proposed by Clement Vidal (2012) or the Integrative Worldview Framework (Hedlund-de Witt, 2013), aim at providing a more elaborate view of the concept, but fail to integrate fragmented and incoherent worldviews. Oldfield's model accomplishes to differentiate between overlapping versions of worldview by distinguishing the most essential parts of the construct. This is achieved by categorising different "ethical or axiological standards; rules or guidelines that people live by that lead them in certain directions (Oldfield, 2019, p. 24)". Admittedly, the distinction according to ethical standards is not indicative of behaviour itself, as individuals do not always act according to their own standards. Rather, tendencies of action and decision-making are described by the core of a certain worldview. The main objective of this method is to identify the basic categories of worldviews and to provide an effective mode of distinction based on the core of the concept.

2.2.3 Categories

The identifying factor for each worldview category is constituted by its core, which is formed by fundamental beliefs that concern desires and guide behaviour. All other forms of belief, named *adiaphora*, are disregarded in this model as being irrelevant for current purposes. Certainly, non-core beliefs are necessary for answering life's big questions, but this does not mean that the categorisation of worldviews is to be based on them. Instead, beliefs that concern decision-making, desires and behaviour are the focus of inquiry. With this, the core-based approach deals primarily with the investigation of ethical or axiological standards.

The classification consists of four cores, named *Dharma*, *Artha*, *Kama* and *Moksha*, derived from the hinduist concept of *Puruṣārtha* from the Veda scriptures. All four categories put forward by Oldfield are a mere suggestion based on the core-based methodology of worldviews. The concept conveys the key objects of human pursuit

and names them as a comprehensive list of all forms of pursuit. In the *Mahabharata* text it is formulated this way: "As regards Dharma, Artha, Kama and Moksha, what is found here may be found elsewhere, but what is not here will not be found elsewhere (Sharma, 1999, p. 227, as cited in Oldfield, 2019)". However, for the Core-based Worldview model the understanding of the four categories is a more limited one, as they are used to comprise the most prevalent objectives and standards. The *Puruṣārtha* serves as a template for the whole model and is not be mistaken for the model itself. Oldfield uses the Indian concept as a template, not as an exclusive foundation for the framework.

The first core-based category suggested is Dharma, the way of virtue or righteousness. It can be distinguished by the motivation to do what is considered to be good, fulfilling moral activities and attempting to live according to an ethical standard. The core of Dharma is not dependent on the success of following what is good, nor is a further clarification or general consensus regarding what is to be accepted as good necessary. Rather, this category is defined by the aspiration towards what the Dharma-follower is considering to be good. Moral action is an aim in itself in this type of worldview. Examples of this core can be found in the pursuit of fulfilling Plato's four cardinal virtues, or in the quest of reaching a state of eudaimonía.

Artha is the second core-based category, representing the seeking of empowerment. The central aim of this worldview is to be understood as a striving towards material well-being by means of authority, status, power, wealth, or similar aspects. Consequently, Artha is prone to be an ego-centric endeavour, but is not limited to this role as it can orient towards the pursuit of material well-being for a whole group or community. The achievement of the objectives of material well-being, that is the success in their attainment, is the core of this category of worldview. Moreover, what is to be considered as empowering, or as material well-being is purposefully defined in a vague manner. The pursuit of success is the core

of this worldview type, not the objectives themselves. Moral action is only cultivated, if it fosters the pursuit of success, the core of Artha.

The third category is Kama, the pursuit of pleasure. The most prominent example for this worldview is the *Kama Sutra*, with its various illustrations of sexual positions. More than this, the text emphasises the fulfilment of further desires, like singing, reading, learning, reasoning and arts (Oldfield, 2019, p. 28). The core of this category is characterised by a pleasure-seeking path. Examples for Kama depict the extensive forms that it can incorporate. To begin with, an Epicurean lifestyle with the pursuit of sustainable, modest pleasures is classified as Kama. Simultaneously, Libertinage as proposed by Marquis de Sade (Perrottet, 2015) as an extreme form of hedonism is also considered to belong to Kama. This is due to the same core found in both of these schools of thought, namely the fulfilment of desires as the highest pursuit. Other schools of thought attributed to Kama are the aesthetic life described by Kierkegaard (2013), or the position taken by Abolitionism (Pearce, 2004).

The last category of the Core-based Worldview model is Moksha, the path of spiritual liberation or salvation. Moksha exemplifies the pursuit of a higher state of being. The path of seeking salvation, or in other words, reaching Heaven, achieving Nirvana, or being in "oneness and unity of all being (Sharma, 1999, pp. 113-114)", is the core of this worldview. For Moksha the ontological belief in a supernatural being, God, or another form of spiritual dimension, like contemporary nature spirituality (Hedlund-de Witt, 2013, pp. 153-154), is of highest significance. Examples for this worldview can be found in the ascetic lifestyle of Buddha and Gandhi. Furthermore, versions of the traditional and integrative worldview categories from the Integrative Worldview Framework can correspond to the core of Moksha.

2.2.4 Limitations and potential

Every model has specific challenges, problems and inevitable limitations that come with abstract depictions. Oldfield (2019, p. 27) acknowledges that the four categories suggested by the Core-based Worldview model "are only ideals to which not many conform perfectly. As such, to be classified in between two worldviews is not an impossibility". Even more so, the four worldviews are not mutually exclusive due to the possibility of incoherent and fragmented worldview beliefs. Consequently, all sorts of paradox structures and combinations can be discovered when the core-based model is applied to the study of worldviews.

The dynamic nature of worldviews brings forth another set of challenges as personal worldviews are subject to constant adaptation, correction and change. Thus, an individual with Dharma as his core element might identify the virtues he is pursuing as represented and embodied in God. Following from that, the core of his pursuit will change to Moksha. Alternatively, the pursuit of salvation can be abandoned in favour of the fulfilment of desires, exemplifying a change from Moksha to Kama. In the case of the Core-based Worldview model, this dynamic aspect brings forth a specific problem for the applied methodology. Even though worldviews tend to be stable over time, it is still unclear what causes, and how frequently and rapidly a set of fundamental beliefs is dismissed in favour of another worldview (Rokeach, 1960; Cobern, 1994; Gutierrez, & Park, 2015).

The different cores are measured with specific questions that aim at delineating their most essential aspects, but do not allow for a high degree of comparison. As Oldfield (2019, p. 33) puts it: "For instance, if we want to compare ontological beliefs between Moksha and Kama, we would run into difficulties because the ontological belief of Kama is not clearly defined. In that case I would recommend using another model, because this one is not omni-applicable". This limitation in comparability is a consequence of the specific scope of the model of providing an

improved methodology for differentiating worldviews. A better comparison between core-based categories can be achieved by combining it with a question-based approach. Another problem for the Core-based Worldview model is the fact that sometimes actions of a person are directly in conflict with their rationality, desires and objectives. This aspect is relevant for Oldfield's model insofar it puts an emphasis on tendencies of action. The core-based method is prone to fail in instances where behaviour constantly contradicts held beliefs. Therefore, the model can be applied only where the tendency of action corresponds to underlying guiding beliefs.

The limited applicability of the Core-based Worldview model becomes even more evident in comparison to the Worldview Inquiry Framework that aims at providing a comprehensive model for all contexts. However, along with the limitations of the core-based model come a number of unique benefits. As already mentioned, Oldfield's framework allows for fragmented and incoherent worldviews to be included in the analysis, if a core of the specific worldview is discernable. If the central element of the frame of reference is not clear, the classification allows for a combination of components. Moreover, the reduction and focus of the analysis on the identification of the core of worldviews allows for a more accessible approach to the study of implicit worldviews, as the unarticulated, incoherent and intuitive assumptions do not necessarily need to be transformed into an articulated set of beliefs. Rather, tendencies of action can be viewed to extract the underlying core of the worldview. This aspect leads to the last characteristic that separates this model from other approaches, namely its focus on tendencies of action. Certainly, this brings with it certain problems that have been addressed, but it also offers a distinct advantage in analysing worldviews based on tendencies of action and behaviour instead of necessitating an articulated set of fundamental statements.

3. Summary and discussion

After reviewing and analysing these two approaches, several key-observations can be made. To begin with, the Worldview Inquiry Framework aims at offering a comprehensive model for the study of worldview. The approach used by Rousseau and Billingham (2018) takes multiple past frameworks into consideration and integrates them into their model. Certainly, the applicability of the Worldview Inquiry Framework for various research fields needs to be tested as no test-retest reliability is analysed for the proposed framework. The repeatability, as the closeness of the agreement between the results of successive measurements of the same measurand under the same conditions of measurement, is crucial in demonstrating the applicability and reliability of the framework across various fields of research.

The same problem regarding test-retest analysis applies to the Core-based Worldview model. Hedlund-de Witt (2013, p. 96) addresses the necessity for thorough analysis of worldview models and proposed measurement scales by stating: "there are indications that worldviews are not always investigated in a way that correlates with the construct that approaches purport to measure. Or, in other words, sometimes the construct validity is questionable". As a case in point, the Core-based Worldview model puts an emphasis on tendencies of behaviour from which the core of a worldview is to be revealed (Oldfield, 2019, p. 24). This mode of categorisation is a strong deviation from other philosophical worldview models as it does not take into consideration answers to existential questions across various worldview components, as demonstrated in the Worldview Inquiry Framework, but puts an emphasis primarily on two components, namely Praxeology and Axiology, as central elements of differentiation between each worldview. The different understanding of worldview presented in the Core-based Worldview model deviates from the conceptual definition given in the previous chapters and stands in strong contrast to the attempt of integrating various sources and approaches, as done by Rousseau and Billingham

(2018) for the Worldview Inquiry Framework. Even more so, the emphasis on tendencies of action fails to pay attention to the aesthetic aspect that is included in the concept. Through the use of behaviour as central characteristic of the core of worldviews, essential parts of the concept are not being considered in the model. Thus, less or no consideration is given to the importance and function of worldviews as perspective from which the world is looked at and as map that serves as a guiding and orienting framework. Rather, only worldview beliefs concerning desires and tendencies of actions are used for the purpose of analysis.

Despite the differences in conceptualisation and approach, the Core-based Worldview model offers an accessible way to study implicit worldviews. This is due to the ability of categorising according to behaviour and tendencies of action without the need of articulating detailed positions regarding all worldview components. Nevertheless, the approach is dependent on the assumption that human behaviour and tendencies of action correspond to underlying fundamental worldview beliefs. This assumption is problematic for the whole model as values and fundamental beliefs can be in conflict to one's own actions. Furthermore, it is not suggested by the author how this correlation can be tested and how it affects the categorisation.

Both frameworks presented in this chapter show different approaches for the analysis of worldviews and offer distinct possibilities for comparing varying positions to each other. Problems concerning the validity and reliability of the frameworks have been pointed out, and it is evident that each approach has its own limitations and challenges. The limited applicability of the Core-based Worldview model and the difficulties in comparing worldview cores are in stark contrast to the adaptability of the Worldview Inquiry Framework with its focus on delivering a consistent mode of study. At the same time, the latter approach does not offer a classification of worldviews, while the core-based method aims to be applicable for implicit and explicit forms as well as personal and organised worldviews.

IV. Impact on teaching ethics

The compiled knowledge about the concept of worldview, the study of its function and structure can be applied to different areas of study. In this chapter, the connection between worldview and ethics education will be investigated to depict what consequences can derive from paying attention to the worldview of stakeholders. For this, a distinction between ethics education and worldview education needs to be made to clarify the wider context of this chapter. Thereafter, three different teaching approaches, that offer distinct ways for dealing with students' worldview, will be presented. Each teaching strategy is further elaborated by providing examples. All three selected examples are school programmes that illustrate how the concept can be used in dissimilar ways depending on wider educational objectives. Next, the impact of worldview on teaching ethics is addressed to highlight possible negative consequences that can arise. Finally, the General Inquiry Framework is applied to the context of ethics education to demonstrate its applicability and usefulness.

The objective of the following sections is to investigate what role the concept of worldview can play in ethics education. For this, possible benefits and dangers of using worldview, along with current approaches of applying the concept in the context of ethics education are being discussed. Additionally, questions regarding the purpose and aims of ethics education, and the legitimacy of influencing and transforming worldview beliefs are addressed. For ethics education new possibilities can be gained through the application worldview frameworks, such as enabling a diversity of perspectives that can be understood and engaged with in a structured manner to discuss specific ethical issues. However, dangers can arise as well, for example, when exaggerated categorisations lead to stigmatisations and over-

simplifications. These issues, along with examples of application and current approaches, are presented in this chapter.

1. Fields of education

The first part presents an understanding of ethics education and shows how it can be distinguished from similar forms of education. This is followed by a section concerning worldview education to elaborate the relation between it and ethics education.

1.1 Ethics education

What is understood as ethics education for any given country, area or school form is dependent on existing regulations, guidelines and programmes. Despite this, for the purpose of the text, a basic understanding of ethics education is used to investigate the application of the concept of worldview and its potential for this context.

Ethics education is sometimes conflated with forms of moral education, such as education theories "related to virtue ethics, commonly called character education" or "moral education based on deontological ethics (Van der Kooij, 2015, p. 93)". However, in this context ethics education is understood to entail more than the communication of certain contents, ways of thinking that correspond to a closed organised worldview, or a specific philosophic mode of understanding. The objective of ethics education is not to convey a uniform interpretation of questions of life and meaning (Wermke, 2018). Instead, ethics education has the objective of enabling students "to distinguish between the moral systems themselves, as expressed by both religious and secular traditions (Bouchard, 2009, p. 62)". It "introduces the major ethical systems of thought developed by philosophers and encourages students to choose one of them or combine them in such a way that a personal, coherent, rational ethical system is described (Ferris, 1996, p. 343)". This approach aims at fostering development and coherency (Ferris, 1996; Bouchard,

2009), but is always in danger of prescribing or imposing one specific position that is deemed superior to others. One central challenge for ethics education is how it can escape becoming a state-orchestrated worldview doctrine (von Bullion, 2010), if its curricula, guidelines and teaching contents are the sole responsibility of the state. Examples of indoctrinating school programmes can be found in some forms of worldview education (Lindemann, 2016; Barron, 2010), or in approaches like citizenship education as it was taught in the German Democratic Republic (Kühn, 1971; Behrmann, 1999; Kirsch, 2018).

1.2 Worldview education

Worldview education is understood to be a part of ethics education and it belongs to the "domain of personhood formation or [...] the development of the personal identity of students (Van der Kooij, 2015, p. 8)". In pursuit of the stated objectives, worldview education may adopt different teaching approaches with specific aims framing the overall strategy. For example, personhood formation can be fostered by promoting harmonious worldview coexistence with an affirming attitude toward pluralism of different frames of reference. Alternatively, the personal identity development of students can be the focus of a teaching approach by enabling students to decide what new information is compatible with their existing worldview and how their position can or should be changed, adapted or re-formulated if it is in conflict with new knowledge.

Compatible with the above stated understanding of the connection between ethics education and worldview education, Nancy Bouchard (2009, p. 62) states the following in the context of religious worldviews:

"It is crucial for the study of ethics and world-views to inform each other. An education in ethics would be incomplete if it were cut off from the study of expressions of meaning and ways of living associated with religious experience. Similarly, an education in religious culture would remain

incomplete if it were restricted to the study of cultural phenomena as separate from a more comprehensive ethical perspective".

Concluding, it can be stated that worldview education is a necessary, analogous part of ethics education.

2. Distinction of teaching approaches

The following chapter depicts three teaching approaches that are part of the wider context of worldview education. Each of the presented teaching strategies highlights one specific objective of worldview education. The aims of the approaches are used as a distinctive factor for these three teaching approaches, and they are worldview coexistence, worldview development and worldview transformation. Every teaching approach is further elaborated by giving a practical example using a school programme. The first programme takes a closer look at *Ethics and Religious Culture*, which was introduced in Quebec. Second, the *Worldview Literacy Project*, as introduced by the Institute of Noetic Sciences is presented. Finally, citizenship education, in German *Staatsbürgerkunde*, as it was practiced in the German Democratic Republic (GDR).

All three examples represent school programmes are studied by investigating textbooks, guidelines and relevant secondary literature. As an example, *Ethics and Religious Culture* is primarily analysed by examining the guidelines and objectives stated by the ministry of education, Ministère de l'Éducation, du Loisir et du Sport (MELS, 2008). This approach offers an insight into the structure, objectives and methods used to convey the intended contents. Admittedly, textbooks are only one part of day-to-day education in classrooms, and cannot present a complete picture about the school programmes. Even more so, a discrepancy between the content given in textbooks and guidelines, and their implementation and lesson content in classrooms has been found by a number of studies (e.g., Kerr, Sturman, Schulz, &

Burge, 2010; Neubauer, 2012). Yet, this approach is adequate for comparing intended aims and suggested methods of the programmes.

In addition to the presentation and examination of the three teaching approaches and their respective examples in practice, the dangers and limitations that can derive from the implementation of these teaching objectives are being addressed. Each of these objections pertains to one of the teaching strategies, but can apply to other programmes as well.

2.1 Worldview coexistence

Clashes between worldviews, also framed as culture wars (Evans, 1997; Hedlund-de Witt, 2013, p. 15), are seen as persistent, arduous disagreement about fundamental beliefs. They can manifest on the international scale, as ongoing political conflicts between states, or can be seen in interpersonal conflicts caused by differing worldviews (Koltko-Rivera, 2004). The study of worldviews can enable a better understanding about how worldview conflicts can be defused in order to avoid escalation and achieve resolution.

Approaches for successful interpersonal worldview conflict defusion can be found in research dealing with authenticity. Goldman and Kernis (2001; 2002) broadly define authenticity as the unobstructed action and behaviour in accordance with the core self in everyday life. Authenticity is further elaborated by four components that can be applied to worldview conflict, and explain how to facilitate coexistence. The next paragraph applies the four components of authenticity to the context of worldview.

To begin with, the first component addresses a necessary awareness of one's own worldview beliefs. For this to be complete, the awareness of the set of assumptions, values and behaviour needs to lead to an acceptance of the range of all of one's worldview components and its possible paradox or inconsistent positions. Otherwise, change and correction of that worldview is needed to reach a place of

awareness and self-acceptance. Second, any information that is relevant to one's worldview is to be processed in an unbiased manner. Irrespective of their potential for negative or positive contribution for the own position, the information is to be handled the same way. Third, free expression is essential for worldview coexistence as suppressed, undefended worldviews are difficult to be sustained. Limitations of free expression can be implemented systematically, but can also derive from social pressure. Therefore, free expression needs to be continually maintained. The final component deals with relational authenticity and is linked to the previous aspect. Relational authenticity is to value the expression of one's worldview and foster the openness to state beliefs irrelevant of their acceptance or inconsistency. The four components of authenticity echo elements that can be found in the objectives of the worldview education programmes, like the importance of dialogue and openness, and the necessity of engaging with one's own position and other perspectives (Hirsch, & Mc Andrew 2014; MELS, 2008).

The application of the concept of authenticity to the context of worldview coexistence addresses the interpersonal dimension and touches on conflicts within a worldview. The underlying issues that lead to conflicts within worldviews and inner contradiction can be dealt with by examining the structure of worldview components and the integration of each aspect. For this, the relation between the parts can point out convoluted or inconclusive structures. Regarding conflicts within worldviews Nilsson (2007, p. 181) states: "The present research suggests that to investigate relationships between worldviews and psychological health you may need to consider the structure and integration of important aspects of the worldviews, rather than mere contents". The coherent order of a worldview, and the maintenance of a structure that can deal with conflicting beliefs is essential in achieving inner conflict resolution. As an example, this can be done by organising worldview beliefs according to a hierarchy that assigns priority to more fundamental elements (Rokeach, 1973).

2.1.1 Ethics and Religious Culture

A new school programme introduced in Quebec for all primary and secondary schools starting from 2008 is called *Ethics and Religious Culture*. The subject aims at offering an accessible insight about different systems of belief, philosophies and doctrines. This objective is approached from a de-confessionalized viewpoint, as the programme states (MELS, 2008). The introduction of ERC was met with opposition, as some feared it to be too religious, with the continued presence of religion in public schools and the advancement of an acceptance of all beliefs, while others criticised ERC for replacing all other forms of confessional religious education, making the secular programme mandatory for all students (Morris, 2011; Hirsch, & Mc Andrew, 2014).

The main objectives of the school programme are summarised in three competencies, namely ethics, religious culture, and dialogue. All three competencies are summarised in two primary aims of ERC, namely "the recognition of others" and "the pursuit of the common good (MELS, 2008, p. 2)". The former aspect addresses the dignity and value that is intrinsic in all human life, while the latter widens the aim of inquiry to include more than "purely personal interests (p. 1)". In the following paragraphs these three parts will be further elaborated.

As a starting point, the aim of the ethics competency is to enable students to reflect on issues from a given perspective. For this, various points of reference, such as religious, philosophical, political texts, or other relevant sources, can be used and compared (Hirsch, & Mc Andrew, 2014, p. 88). In the context of ERC, ethics is defined as "critically reflecting on the meaning of conduct and on the values and norms that the members of a given society or group adopt in order to guide or regulate their conduct (MELS, 2008, p. 1)". Students are encouraged to engage with differing beliefs and values, contextualise, compare viewpoints and examine

possible conflicts that can derive from certain points of reference. Based on this, students gain an understanding about "options or possible courses of actions (16)" that can be reflected upon.

The second competency, religious culture, has the goal of encouraging students "to understand the various forms of religious expression, grasp the complexity of the phenomenon and gain perspective on the various dimensions: experiential, historical, doctrinal, moral, ritual, literary, artistic, social or political (p. 20)". Ultimately, a form of religious literacy is aimed at (Morris, 2011, p. 57), to enable students to grasp the significance that religion can have and enable an openness that is "essential for social peace (MELS, 2006, p. 10)". This interaction with religion is done with an understanding of the wider context of contemporary Quebec, where open secularism, that is a secular society that allows public religious expression, is the chosen status quo (Hirsch, & Mc Andrew, 2014, p. 88).

The third and final competency is dialogue, and is closely tied to the previous two competencies. As Morris (2011, p. 57) puts it: "dialogue is considered the cornerstone of the program". It applies the ability to reflect, contextualise and engage with different viewpoints while maintaining an openness towards others in a controlled setting, where different forms of expression and possible obstacles for productive dialogue are addressed (Hirsch, & Mc Andrew, 2014, pp. 87-88; MELS, 2008, p. 66).

2.1.2 Imposed vows of silence

The title of this chapter is inspired by Colin Hay (2002, p. 245) and the illustration of resisting the postmodern vow of silence that otherwise would lead to a suspension of inquiry, analysis and judgment. In accordance with this, the teaching approach exemplified by Ethics and Religious Culture with its focus on worldview coexistence implies a few aspects that can become problematic to organised worldviews and certain personal worldviews. To depict the problems that can arise due to an over-emphasis of worldview coexistence, first, specific implications brought forth by this teaching approach and its emphasis on the concept of worldview must be addressed.

As Koltko-Rivera (2004, p. 8) states regarding the concept of worldview: "the construct is inherently postmodern in its implicit position that reality is, at least to some extent, subjectively constructed rather than objectively universal in its totality". This aspect of the concept is directly derived from the postmodern notion of social constructionism (Anderson, 1990) and subjectivism (Tarnas, 1993). A consequence of this can be observed in the disbelief toward any truth claim brought forth by a comprehensive, organised worldview (Naugle, 2002, p. 174). It is in this context that organised worldviews which hold on to absolute truth claims have difficulty even accepting the concept of worldview "because of its nuances of relativism (Lindemann, 2016, p. 13)". Moreover, attempts to offer an all-encompassing interpretation of reality, or the view that objective knowledge can be gained, and thus a continual improvement can be achieved were rejected by postmodern thinkers. Lyotard (1984, pp. 80-81) even goes as far as stating: "We have paid a high enough price for the nostalgia of the whole and the one, for the reconciliation of the concept and the sensible, of the transparent and the communicable experience [...]. The answer is: Let us wage a war on totality". The result of this postmodern "war" is a numberless cluster of worldviews; thus affirming pluralism as the better way.

The preference of a plurality of dissimilar worldviews over total narratives brings with it a set of problems regarding the accepted form of manifestation of certain worldviews as it "reduces everything to the private sphere (Hiebert 2008, p. 10)".² An elaboration of the problem is formulated by Moyaert (2018, pp. 10-11) regarding the distinction between what is perceived as good and bad religion. In this wider context, the distinction is applicable to all forms of organised worldview. 'Good' organised worldviews agree with values of equality and autonomy, are modest in the sense that they are not present in the public sphere, and are "not too visible nor audible". The private sphere is the main place where one's worldview is allowed to manifest as it should be "inwardly oriented". As Moyaert states: "It has no need for frills or show and views all those externalities as historical-culturally determined and thus relative (p. 10)". Organised worldviews are deemed as being good if they are silent and private.

On the other hand, 'bad' organised worldviews represent the complete opposite. They emphasise outwardly manifested aspects that are seen and heard. Furthermore, traditional practices and the importance of community is emphasised. Their hierarchies, demarcations and "certain exclusion mechanisms" are perceived as problematic. If an organised worldview makes truth claims regarding social or political issues like marriage, gender, free speech or abortion, then it is in opposition to the preferred plurality of heterogeneous worldviews. It is "associated with immaturity, premodernity, irrationality" " and "heteronomy". Concluding, "the message is that more traditional ways of life are not modern, potentially oppressive, not emancipated, and they also run the risk of fundamentalism and fanaticism and thus of inter-worldview conflicts". These 'bad' worldviews are in need of

² It is important to note that the issues mentioned here are not tied to the validity or invalidity of postmodern claims. Moreover, the question regarding the soundness of the postmodern position are irrelevant for the aims of this text. Any elaboration of such an investigation cannot be addressed here.

transformation to enable their integration and to secure the "social cohesion of society (pp. 10-11)".

In this depiction it becomes evident how some types of worldview are incompatible with objectives that aim at promoting continual worldview pluralism. Admittedly, the aforementioned form of worldview coexistence is narrow in the sense that conflict-free pluralism does not necessarily lead to an imposed vow of silence. For example, a more tempered approach for worldview coexistence can be found in "a form of social contract consisting of basic rules that enable us to live together in relative peace and harmony and that we cooperate despite our different personal values and particular interests (Carr, 2003, p. 177)". Nevertheless, a teaching approach focused on promoting worldview coexistence can also manifest in a more insistent and imposing manner, which is potentially endangering any worldviews and fundamental components that are deemed as being incompatible with the stated objective of worldview pluralism.

2.2 Worldview development

Reaching authenticity in the context of worldview and engaging with personal contradictions and interpersonal collisions of fundamental assumptions may lead to necessary correction of wrong or inconsistent beliefs. It is through the interaction with other opinions, confrontation with opposing positions and conflict that one's worldview may begin to develop (Baumann, 2011; Hiebert 2008). This view of development as an objective in itself is the guiding principle of the second type of ethics education.

A teaching approach focused on conceptual development is defined by Trigwell, Prosser and Taylor (1994, p. 81) as "one in which the teacher aims to help the students develop further their knowledge within a world view or conception, assuming that the students' world view or conception is consistent with that of the discipline. Students are seen to construct their own knowledge". Therefore, any

teaching approach with the primary aim of conceptual development adopts a student focussed teaching strategy in which students' worldviews need to be taken into consideration. The student-centred approach is generally seen to go hand in hand with this teaching strategy as students' development of held assumptions and conceptions is to be achieved by their own understanding and consequent integration of new knowledge in the existing worldview structure (Trigwell, Prosser, & Taylor, 1994).

Teaching approaches that address worldview beliefs and fundamental modes of comprehension of students were found to yield a higher quality of learning outcome (Sheppard, & Gilbert, 1991). Similar to this, Cobern (1991) sees the role of worldview in education to be a fundamental one as students' worldviews need to be taken into account to understand their existing conceptions and the underlying fundamental assumptions. Based on this knowledge a teacher can structure the course to suit the needs of his students. This enables the teacher to promote learning based on a personal meaning orientation, which in turn helps students to engage with new knowledge and develop, correct and reformulate their assumptions. Student-centred teaching strategies with a focus on dialogue and discussion about different perspectives is instrumental in achieving better learning results (Trigwell, Prosser, & Taylor, 1994).

The role of the teacher as a facilitator of dialogue and as a role model for successful inclusion through awareness is central for connecting experience and thought patterns. "Educating for awareness of worldview can help students to discover critical connections between lived experience and habits of mind (Schlitz et al., 2011a, p. 2)". Research suggests that students' worldview components, correction and adaptation of fundamental beliefs are significantly influenced by teachers (Fyock, 2008; Wolf, 2011; Lindemann, 2016). What is more, worldview transformation can occur even without the teachers' intention through their position

and the promotion of open discussion (Fong, 2009; Anderson, 1996; Ter Avest, Bertram-Troost, & Miedema, 2012).

Questions arise as to when and how transformative change is connected with worldview development as it is not clear where the distinction between those two aims lies. Hiebert (2008) differentiates between two types of worldview change, namely gradual change through growth and development, and radical worldview shifts. In concordance with the definition given by Trigwell, Prosser and Taylor (1994), worldview development in the educational context is the process of facilitating and helping students advance existing worldview beliefs to reach a more consistent, improved understanding, and increased awareness of one's own assumptions and position. Striving towards coherency and a growing awareness of different worldview beliefs are central characteristics present in worldviews (Schlitz et al. 2011b; Rousseau, & Billingham, 2018; Hedlund-de Witt, 2013). A distinction between different forms of changes in worldview is used by Schlitz et al. (2011a) by referencing Dunbar, Fugelsang and Stein (2007) and their distinction between minor and major worldview change. While minor adaptations and corrections of worldview can happen continuously throughout life, comprehensive change implies a reorganisation of the worldview structure and is relatively infrequently achieved.

2.2.1 Worldview Literacy Project

A false dichotomy between scientific secularist worldviews and religious worldviews is put forward sometimes. Even though this view can be found in a wide range of influential thinkers, such as Feuerbach, Nietzsche and Marx (Landa, 2005), more often than not, it can lead to an over-simplification of the debate. For example, the triumph of a total ideology over the backward religions was a major theme of the citizenship education programme in the GDR (Kirsch, 2018). Contrary to this approach, the *Worldview Literacy Project* (WVL) aims at developing the ability to understand one's own worldview and accept differing positions. It goes beyond

mere coexistence of differing positions as it aims not just at awareness and interaction, but promotes worldview literacy as a skill set that enables understanding and perspective taking from various points of view.

The *Worldview Literacy Project* is a curriculum developed by the Institute for Noetic Sciences. Included in the programme are a variety of activities, reading assignments and discussion guides, accompanied by learning materials specifically designed for WV. The project comprises 15 lessons in their core curriculum for middle and high school, but it has also been adapted for elementary schools and university classes (Schlitz, Vieten, Miller, Homer, Peterson, & Erickson-Freeman, 2011a, p. 14). The objectives of WV are compatible with existing curricula and are intended for integration into other programmes and subjects.

As a "worldview intelligence initiative (Nagel, 2015, p. 245)" the main objective is to develop the "ability to consciously acquire the skills and capabilities we need to understand the nature of our own worldviews, and to become more aware and accepting of the worldviews of others - granting them legitimacy, even when they seem quite at odds with our own sense-making - without any need or pressure to adopt their worldview as our own (Schlitz et al., 2011a, p. 1)".

Five goals have been defined for the WV project, starting with the aim of introducing students to the concept of worldview (Schlitz et al., 2011a, p. 7). This first step is necessary for the second scope, namely to enable one to understand how worldviews can influence perception and behaviour. Next, cognitive flexibility is increased by using provided exercises and empowering students to examine held beliefs. The fourth scope of the programme is to use types of narrative to explore how experiences can have dissimilar meanings for people, and how the communication of experiences can vary. The last objective of the programme is to increase awareness of one's own position, especially in relation to other worldviews.

Consequently, students should have the ability to engage and deal with contrary viewpoints instead of just reacting to opposition and confrontation.

All five objectives of the WVL project are summarised in a central skill set, namely worldview literacy. This core competency is defined as "the capacity to comprehend and communicate an understanding that information about the world around us is perceived and delivered through the filters of our personal and cultural worldviews. It is the understanding that beliefs are embedded within individual and collective frames of reference and that other people hold different worldviews. It is knowing that our worldviews or models of reality are largely unconscious, and that jointly engaging in practices that raise our awareness of the beliefs and assumptions we hold can allow us to better navigate encounters with differing perspectives (Schlitz et al., 2011a, p. 3)".

It is important to keep in mind that the WVL project is based on the authors' study of worldview transformation. From this work they found that increased awareness and self-reflection can promote the development of pro-social behaviour and increase social consciousness (Schlitz, Vieten, & Miller, 2010; Vieten, Amorok, & Schlitz, 2006). Building on these insights, the WVL project adds new learning methods, such as contextual learning, to connect experience with learning, interactive tasks and activities that aid cognitive flexibility, and social learning through dialogue and collaborative inquiry (Schlitz et al., 2011a; Elias, & Arnold, 2006; Bransford, & Schwartz, 1999; Berman, 1997). The WVL project includes elements of worldview transformation, for example the advancement of certain habits of mind in students (Schlitz et al., 2011a, p. 11). However, these aspects are not enough to classify this teaching approach as a transformative strategy. According to the distinction presented in the previous chapter, the encouragement of new habits of mind and altered relational awareness may be classified as minor change within an existing worldview (Dunbar, Fugelsang, & Stein, 2007); thus making the WVL project an

approach focused on worldview development through the promotion of worldview literacy.

2.2.2 Cognitive apartheid

Attempts to achieve conceptual change and the restructuring of worldviews can be met with resistance and rejection. One common response, states Cobern (1994), is cognitive apartheid. Thereby, students distinguish concepts that are in conflict with their existing worldview, and compartmentalise. If the new, unaccepted knowledge is needed for a specific, immediate purpose, for example an exam or presentation, then it can be accessed and engaged with. After that, the concepts are dispensed with or altered to fit with existing understandings. In the case of cognitive apartheid, even when integration of new knowledge into the set of existing, fundamental assumptions takes place, it has no affect (Cobern 1993), as it is insignificant to the overall worldview. In order for new knowledge to have an effect on the existing fundamental structure, a critical mass of information needs to be accepted and incorporated into the existing framework until it causes sufficient change to the whole construct.

The effect of cognitive apartheid is illustrated by Cobern (1994) by using a metaphor that further elaborates the separation between new knowledge and existing worldview beliefs. Concepts that are inconsistent with held assumptions are separated by compartment walls that necessitate pressure to be sustained. The pressure can be provided by immediate uses for the separated knowledge, like presentations or exams. After the pressure-providing task is dealt with, the walls start deteriorating as there is no significant purpose for their further upholding. This process of compartmentalisation can be overcome if a critical mass is achieved to reach conceptual change and reformulate worldview assumptions.

Cognitive apartheid can cause teaching approaches focused on worldview development to be ineffective. This is due to the possibility of new knowledge

being rejected by students due to their existing worldview beliefs. Thus, students do not construct and incorporate new information, and worldview development is not achieved.

2.3 Worldview transformation

"Transformation is a term that has been resistant to consensus definition (Vieta, Amorok, & Schlitz, 2006, p. 920)", and as such it is challenging to define worldview transformation within the educational context. Referencing the previously mentioned distinction between two types of worldview change (Hiebert, 2008) it can be stated that worldview transformation refers to radical shifts in the fundamental structure of worldview. Furthermore, teaching approaches focused on conceptual change are defined by Trigwell, Prosser and Taylor (1994, p. 81) as those "in which the teacher's aim is that students confront and qualitatively change their world view or conception of the phenomena they are studying. In so doing, the teacher does not assume that the students' world view is consistent with the discipline they are studying, and so they may need to re-construct their world view or conception". As a consequence, the teaching strategy aims at giving students information in a way that enables them to transform their own position through participation and integration of new knowledge (Miedema, 2014). In this process the teacher understands his role to be primarily limited to giving guidance and encouragement, as he "cannot transmit a new world view or conception to the students (Trigwell, Posser, & Taylor, 1994, p. 82)". Rather, the whole transformation necessitates the engagement and open interaction of students, making the process essentially authored by the students (Miedema, 2014, p. 89).

Conceptual change in students is pursued by implementing a student-centred teaching strategy to engage with underlying beliefs and assumptions. The intended result of questioning held assumptions serves the purpose of reaching consistent views in line with the discipline, subject or preferred organised worldview that is

being pursued. A transformative approach addresses all students and has the primary aim of personhood formation (p. 89). This inclusive teaching strategy can be further divided into two distinct parts, namely the educational aspects and the formational parts. The former is the first step in the transformational process as the students incorporate the subject matter to make it part of their "personal property (p. 89)". The formational aspects are provided by teachers and peers to aid the process of transformation by promoting self-formation and re-organisation through the social environment within the classroom (p. 90). The desired conceptual change is "confronting students with their preconceived ideas about the subject, which quite often conflict with what we are talking about - the official dogma as it were. So you've got to bring out that conflict and make the people aware that what they already know may not be what is the official line (Trigwell, Prosser, & Taylor, 1994, p. 81)".

Education perceived as a transformative process implies "that learning is seen neither as exclusively cognitive nor as an individualistic act (Miedema, 2014, p. 90)", but as a holistic approach aiming at personhood formation. This strategy can be found in teaching approaches designed from the perspective of a total, organised worldview that has a social focus with an emphasis on a specific group of people, state, region or wider objective. As an example, christian approaches to worldview education (Lindemann, 2016; Barron, 2010) or socialist education programmes (Kühn, 1971; Behrmann, 1999; Kirsch, 2018) can be named.

The study of worldview offers further insight on the impact of transformative change. Instances when disruptive social transformations take hold can be studied to understand how existing fundamental social, economic, or political structures have been affected by transformative change (Rousseau, & Billingham, 2018). For example, events that have a global impact, like the September 11 attacks, the COVID-19 pandemic, or the continuous advancement of technology, can challenge and alter prevalent worldviews. The changes resulting from transformative

disruption can manifest in unpredictable ways when interrelating effects of widespread assumptions are not evident, or not discernible. Additionally, scientific endeavour can lead to interference with held assumptions through the advancement of new theories and methodologies. The disturbance can be limited to personal worldviews, but it can also impact an entire scientific discipline. In this case, a paradigm shift can occur, with a fundamental change in the application and acceptance of concepts and methods (Kuhn, 1962). All of the aforementioned instances can aid the process of transformative worldview change in the educational context. This is due to the instability caused by disruptive events or extensive change (Gutierrez, 2016; Kennedy, & Humphreys, 1994). As Vieten, Amorok and Schlitz (2006, p. 923) put it: "It is as though, once the landscape changes dramatically, the next step is to come back and reorient oneself to the new perspective".

2.3.1 Citizenship education in GDR

The following chapter focuses on the programme of citizenship education as it was established in the early 1970s in the German Democratic Republic (Kühn, 1971) after the introduction of the Law on the Unified Socialist Education System of February 25, 1965 (GBI. DDR 1965, I). The school programme was structured into three consecutive phases, each with a duration of two years beginning from the age of 13. The programme held an important societal role, being regarded as an ideological core subject (Behrmann, 1999, p. 150) for teaching an imposed mode of comprehension and understanding in line with the prevalent socialist worldview. Textbooks for citizenship education served the role of communicating socialist tradition and conveying a narrative of progressive transformation and socialist superiority over competing worldviews. Not only was institutionalised knowledge about a worldview conveyed here, but socialism was fundamentally devised as a worldview (Kirsch, 2018, p. 119). Within the school programme the socialist worldview was constructed in three ways. First, theoretically through the

argumentation of the scientificity of Marxism-Leninism, second, practically through the content of socialist morals that guide action, and third, ethically from the norms that follow for socialist people (132). Overall, citizenship education with its division into three phases was conceived as the development of the same beliefs on a respective higher level (Kühn, 1971, p. 16).

The Law on the Unified Socialist Education System of February 25, 1965 (GBI. DDR 1965, I) highlights in article 5, paragraph 2 the importance to raise love for the German Democratic Republic and pride in the achievements of socialism in order to provide all the forces available to society to strengthen the socialist state and to defend it. Furthermore, students are to understand lessons from German history, especially the history of the German labor movement. Paragraph 4 of the same article adds the necessity of imparting thorough knowledge of Marxism-Leninism to gain firm socialist beliefs and to empower to understand the meaning of life, to think, feel and act in a socialist way and to fight for overcoming contradictions and difficulties in solving tasks.

The central objective of citizenship education can be formulated as "the education of the all-round and harmoniously developed socialist personality, convinced of the triumph of socialism and standing up for it in word and deed (Kühn, 1971, p. 9)", which was to be achieved through the planned conveying of socialist ideology. The aim was to convey certain contents and a mode of thinking that exemplifies a closed organised worldview with a uniform interpretation of all questions of life and meaning. In accordance with this, Bruen (2014, 319) summarises citizenship education based on an analysis of teaching plans issued for the programme that "reveal that the primary goal of political education in the GDR corresponded to that of the entire education system, that is, to form socialist convictions and to teach socialist behavior". In this analysis it becomes evident that not only the cognitive dimension of a person was focused on, but also the uniformisation of students' behaviour and action in accord with socialist behaviour was a key emphasis of the

programme. The imposed standards of socialist civility, likened to educational dictatorship (Wierling, 2002), had a great emphasis on teaching about moral behaviour and socially accepted conduct.

The formation of socialist convictions (Kirsch, 2018, p. 121; Bruen, 2014, p. 319) were part of wider social efforts of transformation, aiming at civilising people to fit the image of a socialist society (Herzog, 1999, p. 47). Coinciding with this, a key concern was the "historical transformation of I into We (Kietz, & Mühlmann, 1962, as cited in Betts, 2009, p. 8)". As a consequence, content of citizenship education in GDR seldom focused on the individual, but aimed at building an emotional attachment to paramount socialist values and wider social interests (Geissler, 2004, p. 167; Kirsch 2018, p. 122). "Its most important subgoals included the development of a Marxist philosophy of life among students, the creation of a belief in their minds of the correctness of communist theories, and the strengthening of their loyalty to the GDR. Further objectives included increasing their support for proletarian internationalism and devotion to the communist party (Bruen 2014, 319)". In addition to the affective attachment to the state, the scientific worldview of Marxism-Leninism also provided a concept of meaning that combined aspects of orientation, meaning and value (Kirsch 2018, 132).

One of the aims of citizenship education was to educate students to be "knowledgeable on political, specialist and general scientific matters with a firm class viewpoint and a Marxist-Leninist philosophy of life (Schneider, 1978, p. 65)". This previous formulation of the objectives highlights the implied compatibility of the Marxist-Leninist viewpoint with scientific knowledge. Even more so, the socialist worldview of the GDR was understood to be the only correct and adequate position for scientific reasoning (Kirsch, 2018, p. 125), as it was conceived to be a scientific worldview (p. 119). As Bruen (2014, p. 322) points out, a fundamental assumption needs to be made in order to argue for the scientificity of the Marxist-Leninist worldview, namely "the premise that there is one correct interpretation of social

reality (Bruen, 2014, p. 322)". As a dialectical and historical materialist position, the socialist worldview was understood to be the one correct understanding of reality (Kirsch, 2018, pp. 122-124). Based on this, Marxism-Leninism was differentiated from opposing positions, that derived from superstition and pre-scientific knowledge (pp. 125-126).

2.3.2 Worldview turned ideology

Nowhere is a student more exposed to indoctrination, manipulation and fascination than in the encounter with life-guiding ideas and ideals (Kietzig, 2009, p. 96). For the elaboration of how and when worldviews can become inhibitory ideologies, the article *Transformation: Dynamic Worldview or Repressive Ideology?* by Brian J. Walsh (2000) will serve as a starting point. This text uses christian worldview education as focus of inquiry, but the insights gained from the article can be generalised to the wider context of transformative worldview education, and are applied exclusively in this manner.

In the aforementioned text, the dangers and pitfalls of transformative worldview education are being addressed. Most importantly, how the attempt of fostering worldview change and correction can turn into the imposition of repressive ideologies is elaborated. Worldviews as systems of orientation offer answers as a guidance for decision-making and action-taking. They become repressive when worldview assumptions are contrary to lived experience. Walsh (2000, p. 106) summarises the process by using an acronym, TULIP, which stands for: "Total systems of unconditional finality that have lost their [...] dynamism, thereby becoming irrelevant or inconsequential to changing cultural contexts, because they are preoccupied with the protective ethos of an enclosed community". In the following paragraphs TULIP will be further elaborated by using and applying the gained knowledge of worldview and breaking down the five indications regarding when a worldview turns into ideology.

To begin with, the comprehensive nature of worldviews, even more so organised worldviews, can lead to total systems. These are inevitably prone to fail as any given worldview reveals only parts of the same thing, namely of life itself, and has a limited, incomplete mode of comprehension (Groethuysen, 1960; Hedlund-de Witt, 2013; Tarnas, 1991). Nevertheless, worldviews strive toward establishing a more coherent structure by dealing with new challenging information and experience, which is something ideologies are not prone to do as they claim to offer a total system that is "subsuming all other theories (Benedikter, & Molz, 2011, p. 31)".

Second, unconditional finality of a worldview addresses the assumption that a specific worldview is absolutely true, infallible and at an ultimate, final state where no further transformation or growth is needed. This is not to say that worldviews are not generally assumed to be true by the holders of a worldview: "Even the relativist thinks that others should be relativistic. The tolerant liberal refuses to tolerate intolerant conservatives. All worldviews implicitly or explicitly make truth claims of universal applicability (Walsh, 2000, p. 107)". The distinction that is emphasised by the second aspect of TULIP is the pretense and forceful imposition of universal finality that can be found in ideologies.

The third aspect addresses the loss of dynamism of worldview, a characteristic addressed in subchapter *II.2.2.2 Stable and dynamic*. It is the incorporation of new information and the confrontation with new lived experience that form the dynamic part of worldview. By this the continual change, correction and adaptation of worldviews takes place through acceptance and incorporation, or rejection of new information and lived experience (Cobern, 1994). If all new information and experience leads to the confirmation of already existing fundamental beliefs, then the worldview turned into a closed ideology. In that case, changing social and cultural contexts, new knowledge, scientific progress or other similar aspects do not have any effect on existing ideological beliefs. Simultaneously, if all new information

and experience is rejected out of hand as false, inadequate or incomplete, then the ideological system is acting as the sole and ultimate source of true understanding.

The fourth indication deals with worldviews that become irrelevant or inconsequential to changing cultural contexts. This aspect is tied to the absence of dynamism in ideological worldviews when they are locked in a particular mode of perception and understanding. When paradigm shifts take place in society, the mode of conceptualisation and discourse changes drastically. In that context, outdated and rigid ideological worldviews can become irrelevant for out-group persons as the viewpoint cannot address contemporary events and themes adequately. What is more, a lack of relevance leads to ideological worldviews that are inconsequential as they lose any ability of instigating transformation when the view that is favoured and emphasised as superior is incompatible with the daily mode of life (Benedikter, & Molz, 2013; Walsh, 2000).

Finally, an ideological worldview is indicated by its preoccupation with protecting the existing belief structure. Of course, within worldviews there is the tendency to formulate a coherent system, a structure that makes sense as a whole that can be articulated to form an explicit worldview (Rousseau, & Billingham, 2018, p. 14; Hedlund-de Witt, 2013, p. 79). However, it is the inability to engage in discourse, the rejection of critique and intolerance of questioning held beliefs that characterise ideological worldviews. The resulting repressive ideologies can become fearful, protective and reactionary towards other worldviews.

All indications provided by TULIP contain a characteristic of worldview that is a part of the general characteristics of the concept, but when they turn into ideologies new aspects become evident that are not part of what constitutes a worldview. To reiterate, worldviews strive toward coherency and consistency, make truth-claims, are confronted with new information and experience, are imbedded in their immediate context, and are confronted with different, challenging worldview beliefs.

However, exactly these characteristics of worldview can transform and become ultimate, closed, rigid, irrelevant or inconsequential ideologies preoccupied with safeguarding a repressive structure.

3. Applying the General Inquiry Framework

The main purpose of General Inquiry Framework is to provide an approach for exploring information categories across different contexts. As it aims at being applicable to various inquiry processes, the framework can serve as a starting point for discussions about ethical issues. Its applicability to the investigation of phenomena and problems by means of inquiry of a range of dimensions offers a starting point for gathering information and locating different perspectives on various issues. Additionally, the unchanging form of inquiry through fixed components enables greater comparability for relating scenarios. The aforementioned aspects are illustrated in Table 2 by providing two examples. First, groupthink will be the subject of interest with psychological phenomena as the area of study. Second, conflicts will be the subject of interest with interpersonal relationships as the area of study. For both subjects, the educational contexts is the wider context of inquiry.

The examples demonstrate the applicability of the General Inquiry Framework as described by Rousseau and Billingham (2018). A further adaptation that would enable a successive use of two or more frameworks is not demonstrated here, but can be done by using the General Inquiry Framework. For example, the investigation of an ethical dilemma can be looked at by applying a problem-solving inquiry approach to elucidate the situation. Building on this a worldview inquiry of involved stakeholders can be done to inquire about their values and assumptions in order to find preferable decisions.

Inquiry Framework Component	Questions for investigating Groupthink	Questions for investigating Conflicts
Ontology of area of study	What variety of psychological phenomena can be found? Where is the boundary of our area of concern?	What variety of problems in interpersonal relationships exists? What are their distinguishing attributes? What problems are not for us to worry about?
Metaphysics of area of study	What is the presumed nature of psychological phenomena? What are their presumed powers and limitations?	What is the nature of the problems in interpersonal relationships? What effects do they have? What are the limits of their influence?
Cosmology of context of subject of interest	What is the context in which groupthink arises? What is its relationship to its environment?	What is the context in which conflicts occur? What is the relationship between conflicts and its environment? How might different solutions change the future context?
Cosmology of subject of interest	What is the nature of groupthink under study? Where does it occur? How does it originate and develop? What is its potential?	What is the scope of conflicts? How do they arise and unfold? What will happen if we do not intervene? What about conflicts can we change?
Axiology of subject of interest	Why does it matter what groupthink is and how it manifests? How may we investigate it? How not? What value can we derive from understanding it?	Why are conflicts perceived as a problem? Who are the stakeholders and what are their values? How may we investigate it? How not?
Praxeology of subject of interest	Why does groupthink manifest in the way that it does? What functions do its behaviours provide? By what mechanisms are the functions attained?	What steps of action need to be taken to achieve the desired outcome? What outcomes would resolve the conflict? How can we get this done?
Epistemology of area of interest, of subject of interest, and its context	How can we gain understanding of groupthink? What methods are effective?	What and how can we learn about conflicts? How can we know the potential consequences of an intervention for interpersonal relationships? How confident can we be in our understanding of conflicts and the consequences of our intervention?

Table 2: Applying the General Inquiry Framework

Regarding the three forms of worldview education that have been described in the previous chapters, the General Inquiry Framework can be used in each of the teaching approaches, because it functions as a tool not as a teaching strategy. Different and specialised questions can be generated to be tailored to the specific issues at hand. Ultimately, the range of questions that requires attention for the fulfilment of an inquiry is dependent on the objectives of the inquiry. Likewise, the content of the questions within each component can be adapted dependent on the subject of interest, area of study and context of inquiry.

V. Summary

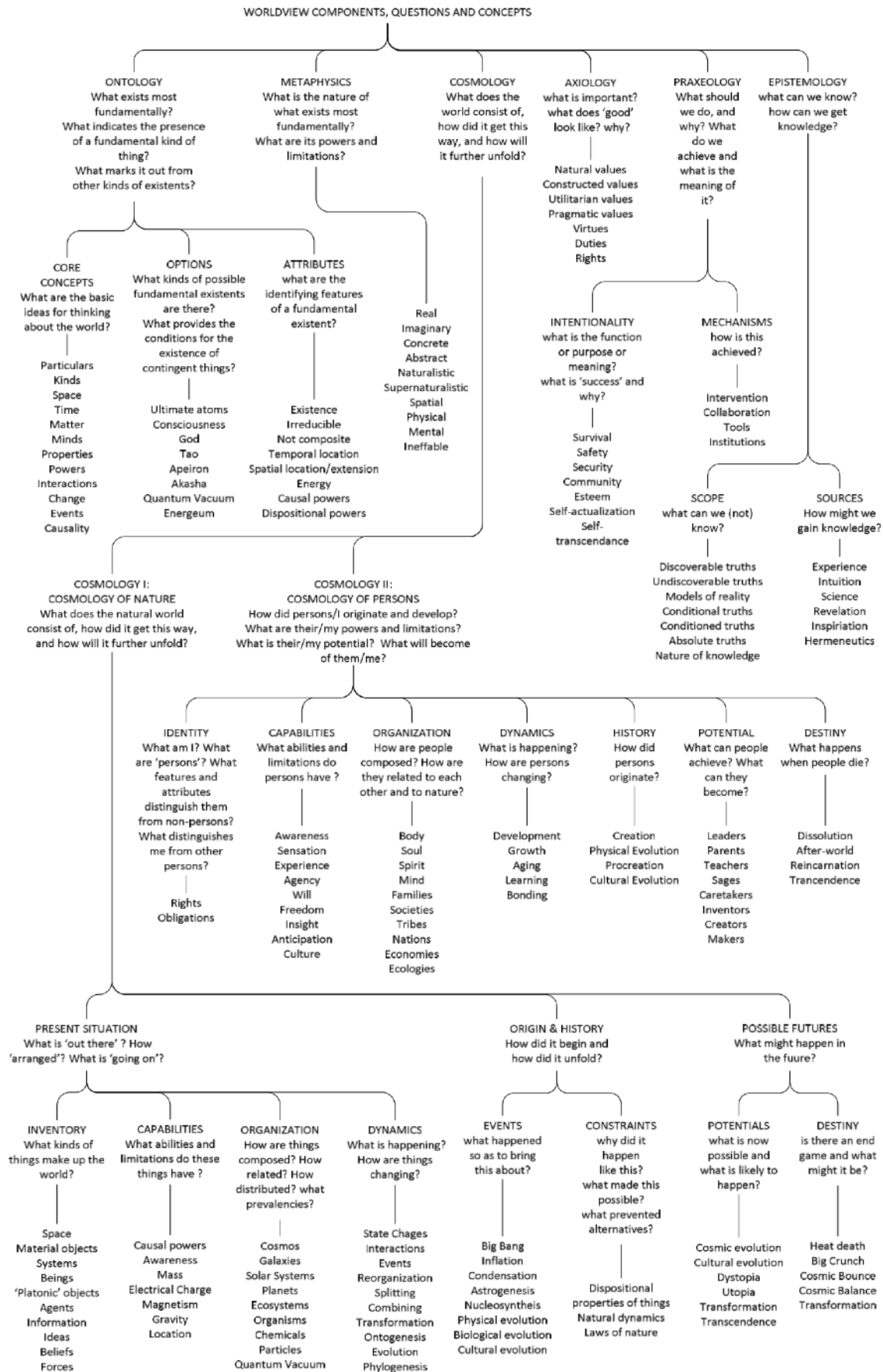
In conclusion, the task and results of this thesis are summarised to depict the way in which the research questions have been addressed. To begin with, the first chapters show how the concept has changed over time by giving a selective overview about some influential figures in the development of the meaning and application of worldview. Building on this foundational understanding, the concept is clearly defined, and central forms and characteristics of worldview are introduced and presented.

The second set of subqueries is addressed by making a distinction between dimensional and categorical worldview frameworks. Consequently, two current philosophical worldview models, the Worldview Inquiry Framework by Rousseau and Billingham (2018) and the Core-based Worldview model by Oldfield (2019), are presented and discussed. Based on the chapters that answer the first two sets of research questions, *II. Exploring worldview as a concept* and *III. Worldview frameworks*, current understandings and applications of the concept are looked at and compared.

The fourth chapter, *IV. Impact on teaching ethics*, seeks to apply the concept of worldview to the context of ethics education in order to reflect on the relationship between worldview and teaching ethics. The connection between worldview and ethics education is addressed by pointing out three distinct teaching approaches that take into consideration the worldview of students. The differentiating factors between these school programmes are their objectives, namely coexistence, development or transformation.

Due to the inconsistent definition of worldview and its arbitrary application, further research aiming at the clarification of the concept is necessary. Even more so, an active integration of existing approaches, in line with the aims of Rousseau and Billingham (2018) of comprising existing frameworks and formulating new models to be applicable across various fields of research. In addition to this, further quantitative studies are necessary to test the validity and reliability of proposed worldview frameworks.

Appendix A: Concept map of the Worldview Inquiry Framework



Appendix B: General Inquiry Components

Worldview Inquiry Component		General Inquiry Component	Typical Information Component Questions
Ontology	→	Ontology (of area of interest)	What are the fundamental existents or fundamental categories of thought for our area of interest? What variety of things occurs in the area of interest? What features and attributes identify them?
Metaphysics	→	Metaphysics (of area of interest)	What is the nature of the entities contained in the area of interest? What are their generic powers and limitations? What powers are unique to these entities?
Cosmology I (cosmology of nature)	→	Cosmology I (cosmology of context of subject of interest)	What is present in the context or environment of the subject of interest? What are the capabilities of those entities? How are they organized? How did that scenario come about and how will/could it change? What are the relationships between the specific subject and its context? How do they condition each other?
Cosmology II (cosmology of persons)	→	Cosmology II (cosmology of subject of interest)	What specific or specialised thing is the particular subject of interest? What are its defining attributes? How did/could the subject of interest originate? How did/could it develop into its present/desired state? How might/should it change in the future, and what will/could become of it?
Axiology	→	Axiology (of subject of interest)	What is the importance or value of the specific subject of interest's existence and behaviour? Why does it matter what it does?
Praxeology	→	Praxeology (of subject of interest)	What functions can the specific subject of interest perform? What is the meaning or purpose or relevance of its activities? By what mechanisms are these outcomes achieved?
Epistemology	→	Epistemology (of area of interest, and of the specific subject of interest and its context)	What can we know about the subject of interest and its context? What methods can reveal this information? How can we assess the comprehensiveness and credibility of this information?

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