WHO WE ARE IN THE WORLD: AN INVESTIGATION INTO

PSYCHOLOGY AND WORLDVIEW

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ABSTRACT

At the heart of Psychology is the search for understanding — understanding ourselves, understanding others, and understanding our places in the world. At one point or another a person comes to ask themselves fundamental questions about human life, like "Who am I?", "Why am I here?" and "What will happen to me?" Although these questions are not usually asked out loud, these attempts to make meaning of our lives serve as a reference for our worldviews. In part 1, I take a theory-driven approach to address the questions "What is a worldview?", and "How is worldview studied psychologically?" In part 2, I introduce a new measure of worldview — The Philosophical Worldview Questionnaire (PWQ) — given to 159 students and address how they describe their worldview using worldview statements, what the benefits of taking the PWQ are, and how well the PWQ fits as a measure of worldview, with directions for the future.

Keywords: Worldview, beliefs, culture, existential, morality, values

DEDICATION

I would like to dedicate this thesis to my mother and father. Your wisdom and guidance have been monumental to my worldview development. Thank you for your weekly phone calls, years of good advice, and for providing me with everything I didn't know I needed.

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INTRODUCTION

A worldview is an individual's perspective of the world in light of the ultimate conditions of reality (Koltko-Rivera, 2004; Sire, 2015; Taves et al., 2018; Vidal, 2008). Worldviews describe a common core to the human experience, namely that we all have a view of the world. We all have a concept of ourselves that is embedded in our own worlds. The worlds we live in are entirely unique to each individual and depend on our subjective sensations and perceptions. However, so much of our environment is shared that there are similarities in worldviews across any given time, place, or culture. Since we live in a world of interpersonal relationships, worldviews are often discussed in terms of personal ideologies about a certain set of beliefs a culture holds to be true, such as religious, political, and moral worldviews. These collective cultural worldviews inform the many decisions we make on a daily basis, such as what we eat, who we build relationships with, and what careers we pursue. When these worldviews are examined in the public light, worldview conflicts become more apparent as our worldviews guide which social and public policies we endorse (Nilsson & Jost, 2020). One goal of this thesis is to propose the idea that worldviews are present at an individual, collective, and universal level simultaneously. To make this clear — every person has an entirely unique set of experiences and biology that affect how they see themselves and the world (i.e., individual level) — this affects our likes and dislikes, goals, actions, relationships, well-being, and others personality characteristics (Koltko-Rivera, 2004). At the same time, people exist in a culture or subculture that raises them and teaches them how to live (i.e. praxeology); the culture and time one lives in

informs their collective worldview. An example of our collective beliefs includes our social, national, and demographic ideologies which resembles what Albanese (2013) calls ordinary religion, or what others call culture (Cohen, 2009). We also have a universal worldview lens that puts everyone on the same playing field. Universal worldviews represent a common humanity — that we experience the world through our own perceptions and are all moral agents whose life has an effect on others (Haidt, 2012); that we all have an idea about what is real; that we all live and die and seek to make meaning of our existences.

In this thesis I set out to answer five questions: What is a worldview and how is it defined across disciplines; how is worldview currently being studied psychologically; what existential, evaluative, and pre/prospective beliefs do students express; what is the value of worldview reflection; and how well does the Philosophical Worldview Questionnaire (PWQ) function as a measure of worldviews? In Part 1 of this thesis, I take a theory-driven approach to address previous worldview models and propose a new theory of worldview that aims to integrate the study of psychology, philosophy, and culture. I introduce a "levels" model of worldview that differentiates the concept of worldview into universal, collective, and individual lenses.

In part 2, I will take a data-driven approach to test these questions by utilizing the Philosophical Worldview Questionnaire (PWQ), which is an open-ended worldview questionnaire created by the researchers. I use thematic analysis to investigate patterns among students' existential, evaluative, and pre/proscriptive statements, and exploratory coding to investigate emergent worldview properties that may illustrate other functions of the PWQ. I also explore the benefits of worldview reflection using several Likert scale items and open-ended questions following the PWQ. Lastly, I assess the quality of the PWQ as a measure of worldview using word count analyses and observations from student responses. This thesis provides new

avenues for research on psychology and worldview, and begins to integrate the study of

psychology, philosophy, and culture under the framework of worldview.

PART I

WHAT IS A WORLDVIEW?

ABSTRACT

  In Part 1 of this thesis, I take a theory-driven approach to address previous worldview models and propose a new theory of worldview that aims to integrate the study of psychology, philosophy, and culture. To do so, I provide a brief history of the concept of worldviews and highlight the theoretical diversity that has come from worldview research across disciplines. I introduce a "levels" model of worldview that differentiates the concept of worldview into universal, collective, and individual lenses. In chapter 2, I review the current theoretical and empirical paradigms within the psychological study of worldview, which includes categorical and dynamic models. I discuss relevant quantitative and qualitative empirical studies of worldview, identifying their strengths and weaknesses in order to identify gaps in the literature. Qualitative studies into worldview are scant, and, therefore, lack a unifying empirical design. This limitation provides justification for the worldview analysis presented in Part 2.

CHAPTER I

A NEW UNDERSTANDING OF WORLDVIEW

"For any of us to be fully conscious intellectually we should not only be able to detect the worldviews of others, but be aware of our own — why it is ours and why in the light of so many options we think it is true." – James Sire (2015, p. 14)

The concept of worldview has a vast history in philosophy and has only recently become a construct of scientific inquiry (Bou Malham, 2017). A concept of such breadth and depth as worldview is important to understand in its many forms if we plan to study it as an empirical phenomenon that can be observed, measured, and influenced (or changed). Jung (1954) posits that worldviews are largely unconscious; therefore, we often rely on some form of metacognition and self-awareness to study them explicitly. Only when a worldview is expressed through language or action can it be observed. Therefore, to understand and study different worldviews, scientists need to create welcoming spaces where the sharing of beliefs, assumptions, and values are encouraged and made explicit. Only then can we begin to describe and draw inferences about the motivations behind others' thoughts and behaviors, including how worldviews affect our lives in relation to others. In this chapter, I present a new model of worldview at the theoretical level to provide a foundation for future worldview research in psychology.

The History of a Concept

The essence of worldviews has been a topic of interest since antiquity, including the times of the ancient Greek philosophers, although they lacked a critical and comprehensive usage

of the term. Rather, we can grasp their understanding of the conditions of human nature through their conception of rhetoric (Aristotle, 350 BC/2010), by which they devised a model for appealing to three foundations of a person's worldview, being *ethos* (character), *logos* (logic), and *telos* (purpose). In other parts of the world, the theoretical bases for worldview were unveiled through words of ancient religious wisdom. Approximately 2,500 years ago, the ancient sage known as Buddha painted an enlightened picture of worldview by saying "our life is the creation of our mind" (Mascaró, 1973 in Haidt, 2006), or the alternative translation, "We are what we think. All that we are arises with our thoughts. With our thoughts we make the world" (Byrom, 1976/1993, p. 1 in Koltko-Rivera, 2004). In the ancient Hindu text, *Bhagavad Gītā*, the story illuminates a profound wisdom that a person's beliefs about the world define who they are and who they become (Schweig, 2010). Although these ancient insights provide the foundation for our modern scientific understandings of cognition and behavior (e.g., Beck's and colleagues (1979) cognitive triad), a theory of worldview would not receive attention until much later.

The term worldview comes from the German "*weltanschauung*", or 'a view of the world', and is credited to Kant in his *Critique of Judgement* where he understood worldviews as a universal quality of human nature (Kant, 1790/1987; Naugle, 2002, pp. 111-112) According to Kant, all humans face certain inevitable existential quandaries in light of the external conditions of life such as the riddle of death, suffering, and impermanence (Sire, 2015). Certain philosophers have maintained this universal understanding of worldview, but with some additional consideration for cultural and individual expressions. In philosophical circles, worldviews quickly became conceptualized as an intellectual concept held from a personal perspective about the universe and life within it (Dilthey, 1957).

In his lectures on Pragmatism, William James suggests the single most important fact to know about a person is his or her "view of the universe" (James, 1907, p. 1). James recognized the value in understanding another person and their approach to life, meaning, morality, and values. He was one of the first modern psychologists to recognize the infallibility of certain existential beliefs, or beliefs that describe the nature of reality (Narasimhan et al., 2010). For example, the meaning of life is a concern of subjectivity and a person's meaning cannot be regarded as fallacious. During James's lectures, he laid the foundation for integrating philosophy and psychology, and indirectly introduced psychology to the idea of worldviews. Worldviews have been a topic of interest in psychology for generations but have often gone by different names including "philosophy of life" (Jung, 1954), "world outlook" (Maslow & Frager, 1987), and "unconscious canons of choice" (Kluckhohn & Strodtbeck, 1961) to name a few (Koltko-Rivera, 2004). Each of these psychological thinkers were discussing worldviews without an awareness of the term.

Meanwhile, cultural anthropologists Redfield (1952) and Kearney (1975) were defining worldview as the *deep culture* that influenced the thoughts, behaviors, and meaning of individuals within a society. For Redfield, worldview offered a universal theme that arises across cultures (Redfield, 1952). Koltko-Rivera (2004) offered a new perspective on the psychology of worldviews and posited worldview as a measurable phenomenon that could provide insight into personality, motivation, affect, cognition, behavior, and culture. Following Kolko-Rivera's lead, there have been a few researchers who have investigated worldviews empirically (e.g., Clifton et al., 2019; Hedlund-de Witt et al., 2016), however, worldview remains predominantly a consideration of theory. Through this brief introduction to the history of worldview, it can be observed that worldviews have been conceived of in terms of universal themes that eclipse

specific cultures, as *deep roots* of culture that direct our collective ways of being, and as individual lenses for seeing and interpreting the world.

The Paradox of Worldviews: "Worldview as a Matter of Worldview"

Worldview is a theory that has immense breadth and depth, which makes it widely applicable to the social sciences, and specifically, psychology. In worldview research, there has been a lack of a consensus operationally defining worldview that has placed limitations on integrating worldview theories. In order to form a comprehensive worldview model for empirical research, there needs to be a central paradigm that researchers endorse to frame their methodological and theoretical findings and interpretations of their results. As a solution to this I propose a three-level model of worldview to explain the variability in studying worldview across the social sciences and within psychology. The lack of uniformity in worldview analysis lies in the fundamental assumptions that each discipline makes, which makes the variability in the study of worldview a matter of worldview (Sire, 2015). To provide an illustration of this phenomenon I have provided definitions from five areas of worldview research in Table 1.

Each of these definitions are discussing worldview, but the disciplines operate on differentiated claims that change the application of worldview research and discussion. William James (1907) believed that a person's approach to knowledge is prejudiced by their understanding of the world. In the same breath, James Sire (2015, p. 43) maintains that "how one conceives of a worldview depends on one's worldview". The paradox that studying worldview imposes requires researchers to acknowledge their biases and practice reflexivity to contextualize their methodological approaches and interpretations of their results. Reflexivity is a cognitive process ("mental ability"; Archer, 2013) of reflecting on one's knowledge about themselves in

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Table 1 Worldview Definitions by Discipline				
Philosophy	Religion	Psychology	Sociology	Anthropology
"a coherent collection of concepts allowing us to construct a global image of the world, and in this way, to understand as many elements of our experience as possible" (Vidal, 2012, p. 8).	"A worldview is a commitment, a fundamental orientation of the heart, that can be expressed as a story or in a set of presuppositions (assumptions which may be true or entirely false) which we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provides the foundation on which we live and have our being" (Sire, 2015, p. 141).	"a set of beliefs that includes limiting statements and assumptions regarding what exists and what does not, what objects or experiences are good or bad, and what objectives, behaviors, and relationships are desirable and undesirable" (Koltko-Rivera, 2004, p. 4).	"Our worldview system determines our definitions, our concepts and our values; whether we consider events that we experience important, true, good, etc. or whether we attend to them at all. Thus, we make assumptions about events that we experience based on our 'predisposed' values, beliefs, and attitudes toward the nature of things. These values, beliefs and attitudes comprise an organized body of ideas or a conceptual framework for viewing, defining, and experiencing the nature and meaning of events that constitute our phenomenal reality, and even determine what phenomenal reality will in fact be". (Carroll, 2014, p. 43).	Worldviews consists of (i) categories of the things in the world as (ii) constructed by language, orientations in (iii) time and (iv) space, (v) causality, and the (vi) relation of self to the world (Kearney, 1975).

reference to their social context (Archer, 2013; Holmes, 2010). Worldview reflection is a reflexive practice that involves deep self-awareness and communicating your beliefs to yourself and others. To consolidate worldview research, it's necessary to model reflexive practices that frame the intentions and aims of the researcher and reinforce worldview transparency. For example, many worldview writers have endorsed a Christian worldview, which has manifested in their worldview writings (for an example see Anderson, 2014). When integrating the study of worldview into the psychological sciences it's essential to retain scientific purity by not pushing our own agendas. Overcoming biases as a researcher is necessary to do good science. However, that does not mean we can operate outside of our biases, rather, we must acknowledge them and include heterodox perspectives that both challenge and enrich the interpretations of data.

Psychological Components of Worldviews

In 2011, Johnson and colleagues identified six components of worldview that allow us to reify worldview into an empirically observable psychological phenomenon. The six components of worldview are deeply embedded systems of philosophy, they include ontology (beliefs about what exists and what is real), epistemology (beliefs about what is true; knowledge), semiotics (how we interpret and use symbols and language to describe the world), axiology (study of values, ethics, and goals), teleology (study of ultimate meaning, goals, and purpose), and praxeology (study of actions, norms, rules) (Johnson et al., 2011). These six aspects collectively inform each other and cannot exist independently, together they form a person's worldview. For example, if you believe in moral relativism, it logically follows that there is no objective moral truth or order to the universe, and therefore, no deities judging right from wrong, which means no certainty about the afterlife or ultimate reality, which means how we behave doesn't have

eternal consequences, which means you can kill a baby or engage in incest and it's neither objectively good nor evil, but relative to each culture or time period. This extreme example is not meant to be realistic or even a valid representation of how worldviews actually work. Instead, it illustrates the interconnectedness of our beliefs, values, and actions under the assumptions that we make about the world if we were to examine the logical implications of all our beliefs. In reality it looks more like this: 'My name is Mary Ann, I am a Catholic. I believe the way to Truth is through the church, where the magistrate interprets the bible. I pray before I eat and sleep and attend church every week where I practice communion. I'm waiting until marriage to have sex because I believe pre-marital sex is a sin and the more I sin, the more repenting I must do to get to heaven.' The worldviews I presented here are intentionally direct to show how each philosophical component constructs our worldviews. Given the model of worldview components provided by Johnson and colleagues (2011), I propose moral agency and ontological orientations are foundational features to the scientific study of worldview in a time of tumultuous conflict.

At its core, a worldview has its foundations at the intersection of human agency and ontological authority orientations (Koltko-Rivera, 2004). Every person is a moral agent who acts according to a selected creed, code, and community (Haidt, 2012). People live within the boundaries of a specific time, culture, and situational context that have normative rules and purposes where proper conduct is expected in any circumstance. That is, we all abide by laws, social contracts, and customs that limit and guide the ways we live our lives. Since members of a society hold expectations of ourselves and others, we often recognize when norms are violated and when retribution is necessary. The beliefs, values, and commitments associated with a person or larger culture establish moral boundaries that guide our attitudes towards what qualifies as "right" and "wrong". A new synthesis in the field of moral psychology suggests that

moral systems underlie each culture and explain a substantial amount of cultural variability (Haidt & Kesebir, 2010). I propose our moral systems are inherent expressions of our worldview (i.e., axiology and praxeology), and are one of the most basic pillars for studying worldviews, since morality lies at the intersection of how people should think and act in a world of social relationships. However, these moral systems are embedded in a more fundamental distinction that orients a person to the world, being their beliefs about what exists, or their ontological orientations (i.e., models of reality; Johnson et al., 2011). Taken together, I propose a person's ontological orientation and moral agency are two foundational mechanisms that orient and configure one's worldview (see Figure 1).
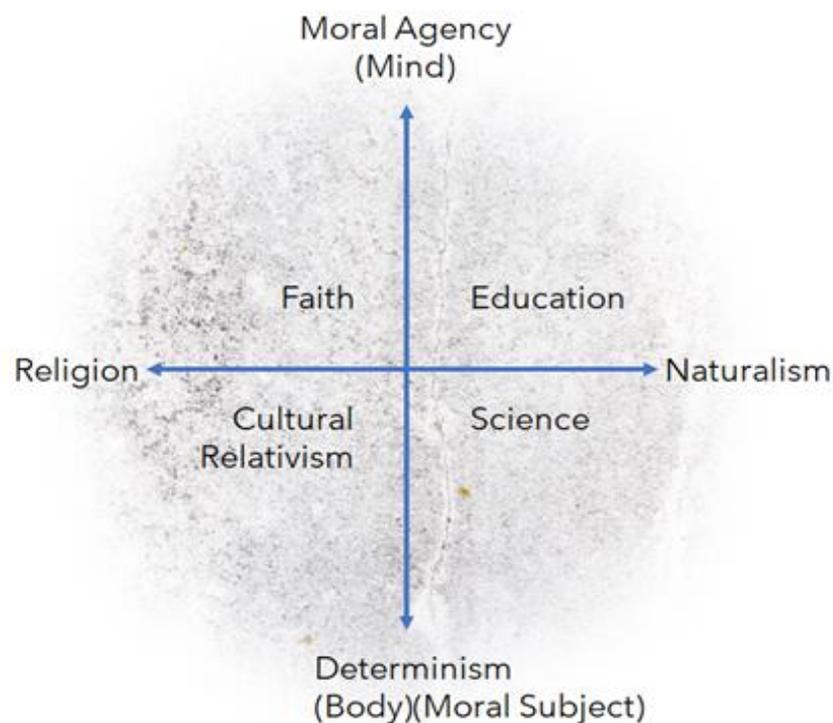
Figure 1 Foundations of Worldview Model

There are two ontological poles that people's worldviews gravitate towards in the postmodern world: religion and naturalism (Habermas, 2008). According to William James (1902/1985), religion describes the dispositions, behaviors, and experiences of an individual in relation to whatever they consider the divine. Religious worldviews provide a framework to understand life, including normative behaviors according to some transcendent or supernatural qualities of reality (Dilthey, 1957; Sire, 2015). Therefore, religion encompasses the beliefs, practices, and moral codes seen across cultures, but goes further to establish an extraordinary metaphysical element to the world, being the existence of divine or immaterial agents (e.g., spirits, deities, etc.) (Albanese, 2013; Johnson et al., 2011). On the other hand, Naturalism is the philosophical belief that everything can be explained in terms of physical properties and natural causes (Papineau, 2007). Naturalism is the dominant ontological worldview authority for much of the western world (Sire, 2015). The major distinction between religion and naturalism is that while religion endorses belief in divine or spiritual qualities to the world, naturalism rejects any extraordinary conditions or causes (Papineau, 2007). Rather, naturalism aims to bind our knowledge of reality to the natural world and observable phenomena, which is consistent with the postmodern worldviews of many post-enlightenment thinkers (Golshani, 2020). On the surface, this distinction may seem trivial, however, the consequences of each ontological authority provide the framework for all the other aspects of worldview since being logically precedes the act of knowing (Sire, 2015).

The prevailing theoretical paradigms in psychology and other social sciences (i.e., positivism and post-positivism) operate under assumptions that evidence of the world (including observable and self-reported phenomena) can reveal truths about the inner workings of individuals and reality as a whole. These prevailing assumptions about what exists and how to

find truth endorse a naturalistic orientation within psychological measurement. A naturalistic scientific perspective necessarily provides limitations to the validity of ethereal or subjective religious and spiritual experiences (Habermas, 2008). Often, proponents of psychological science subscribe to the methodological exclusion of the transcendent using essentially epistemological criteria to exclude ontological claims (Hood, 2018). This has created a tension between science and religion, as religious worldviews are becoming increasingly stigmatized for being subjective or logically incoherent, due to a lack of physical evidence for forming beliefs (Hood, in press). It's not for me to say whether religious or naturalistic orientations are incompatible or what kind of change should happen. Rather, psychology should focus on investigating all human experiences, even those intangible and not easily observed if it hopes to understand the complexity of human thoughts, emotions, and behaviors.

A Model of Diversity

In his book *Worldview: The History of a Concept,* Naugle (2002, p. xvi) posits that the concept of worldviews emerged as a response to the "burgeoning cultural phenomenon of intense religious and philosophical diversity." Now more than ever, the concept of worldview provides a valuable model for understanding the heterodoxy of human practices and education. It's been the explicit mission of several local and global organizations to promote viewpoint diversity and constructive disagreement in light of our worldview differences (e.g., Heterodox Academy, 2021). Worldview thinking provides a way to make meaning of our individual and collective differences. So far, worldview has been studied under discrete scientific approaches which has limited researchers from seeing the "big picture" of what worldviews represent (see Figure 2). To fully integrate the empirical measurement of worldview phenomena into psychology and

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other sciences requires additional theoretical structuring to provide a framework for navigating

the depth of the worldview phenomenon under investigation. If worldview is both a ubiquitous

psychological phenomenon and an identifiable cultural perspective, there needs to be a

framework for comprehending worldview on multiple levels, simultaneously. Here, I outline a

three-level worldview framework that differentiates between universal, collective, and individual

worldview lenses in hopes that this will be a helpful tool for understanding *how* different

disciplines study and communicate the diversity of worldview research. The idea of applying
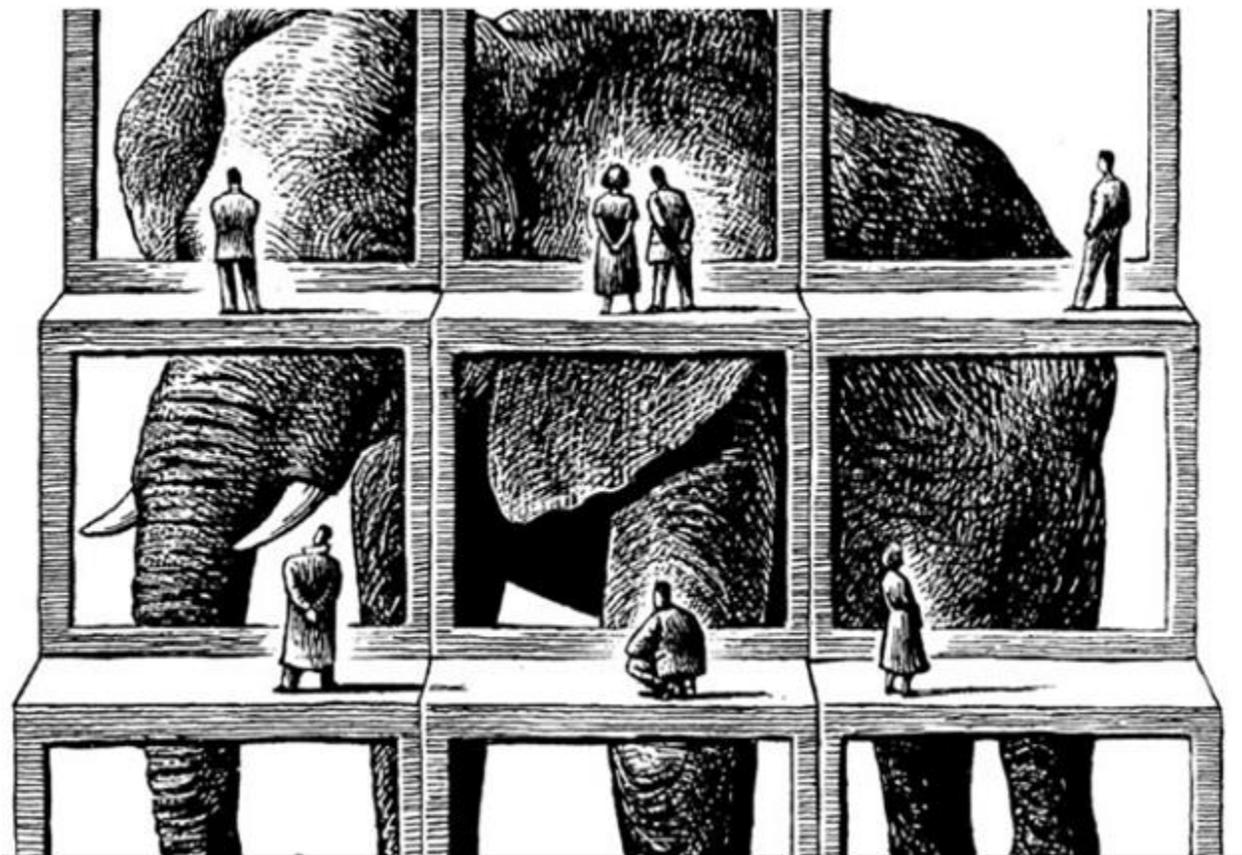
Figure 2 Seeing the Bigger Picture

© Gain (2014). *Context matters*. Asia Research Media. https://asia-research.net/context-matters/

different lenses to worldview analysis is not a new concept (e.g., Koltko-Rivera, 2004; Nilsson, 2014a; Sire, 2015), however this is the first paper to propose and discuss three worldview lenses as a guiding framework for the psychological study of worldviews.

In figure 2, the elephant represents a personal worldview. Researchers have studied worldview through their own lenses for seeing the world (i.e., worldviews), which includes the methodologies typical of their discipline. This picture visually represents the fragmented nature of worldview studies. If it is at all possible to study the "big picture" of worldview, interdisciplinary collaboration is necessary to capture its many aspects.

Universal Lenses. Many worldview thinkers have claimed that worldviews are a universal human phenomenon (Naugle, 2002). However, the application of worldview thinking has mostly been examined in terms of worldview categories and individual worldview differences. Before we can examine worldviews at the individual and collective levels, we must maintain the universal properties of worldviews and what they seek to answer. Universal worldviews represent a common humanity — that we experience the world through our own perceptions and are all moral agents whose life has an effect on others (Haidt, 2012); that we all have an idea about what is real; that we all live and die and seek to make meaning of our existences. Generally, our worldviews manifest from the need to make meaning of the inevitable riddles of all human life, concerning death, suffering, and purpose (Sire, 2015). I propose that while investigating worldview differences at collective and individual levels is useful, we must also direct attention to the universal conditions of the human experience to make sense of the other worldview lenses. Philosophy, physics, and biology seem to be disciplines capable of providing answers to these world questions, however, at the moment much remains unsaid,

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which affects what we know to be true of the world. For example, the theoretical physicist Stephen Hawking (2018) published a book called *Brief Answers to the Big Questions*, where he provides theoretical insights into some of the most profound questions humans use to make sense of the world, including if God exists, the origins of life, and human destiny. Psychology as a discipline is sectioned into different approaches which are very much capable of examining the individual parts of the mind and behavior, but incapable of seeing the "big picture" of what it means to be human. Therefore, interdisciplinary collaboration and integrating multiple approaches is critical for advancing the field. The universal worldview lens posits *that* we believe and experience the world in many forms, which necessarily precedes individual and collective *ways* of being (Naugle, 2002). In this way, the universal worldview lens employs itself as an overarching concept that has yet to receive empirical attention (Flanagan, 2020). Under this approach, worldviews emerge as a common core to the human experience (Kant, 1790/1987).

Collective Lenses. The way we experience the world is continuously being shaped by the people we interact with and the contexts in which we are immersed (Helve, 2015). This is most clearly represented by the culture of an individual, group, or society. Culture refers to a shared system of knowledge, beliefs, and behaviors that exists within a group of people (Johnson et al., 2011). At the collective level, worldview is often conceived of as a group identity embedded in a specific culture or subculture that distinguishes belief systems from alternative systems of beliefs (Gutierrez & Park, 2015; Koltko-Rivera, 2004). The collective worldview lens may be characterized by what is referred to as 'shallow diversity', that is the belief that group identities (e.g., age, gender, race, SES) speak to the differences in the qualities of a person (Harrison et al., 1998). This lens allows for some expression and representation of a given worldview but falls

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short in describing the nuances of individual differences due to simplicity. In research, worldviews are mostly clearly observed by how they differ across time, cultures, and situations. Investigations into collective worldviews can easily be seen through the omnipresence of political, religious, and interpersonal conflicts (Brandt & Crawford, 2020; Perry et al., 2013). As Johnathan Haidt puts it, "religion is a team sport" that binds us to our ingroup and blinds us to other worldviews (Haidt, 2012, p. 285). Therefore, our worldviews become more apparent when put in the context of different worldviews. Most of the literature discussing worldviews has used a collective worldview lens, where major worldviews are put into categories or 'worldview types or styles' (e.g., Hedlund-de Witt et al., 2016).The downside of using a collective worldview lens cannot be summarized any better than by James Sire who said studying the major worldviews "miss the finer points of our individual worldviews and somewhat misrepresent any one person's worldview" (Sire, 2015, p. 175). Therefore, the disciplines that can illuminate the effects and depth of collective worldviews occur mostly in the social sciences, where culture is the focus of inquiry, which includes sociology, anthropology, political science, and psychology.

Individual Lenses. Under the individual lens, worldview is one's perspective of the world shaped by their unique feelings, thoughts, and experiences (Koltko-Rivera, 2004). No two people share the same worldview even though there are many similarities within and across groups, times, and cultures (i.e., collective worldviews). To make this clear — every person has an entirely unique set of experiences and biology that affect how they see themselves and the world (i.e., individual level) — this affects our likes and dislikes, goals, actions, relationships, well-being, and others personality characteristics (Koltko-Rivera, 2004). The individual worldview lens may be characterized by what is referred to as 'deep diversity', that is the belief that

individuals are unique and complex beings who see the world through their own 'eyes' and exhibit diversity internally, regardless of group identity (e.g., Harrison et al., 1998). Psychologists can make sense of this lens through the understanding of individual differences, which for many is a hindrance to their research. In many cases, researchers in psychology attempt to understand and create multi-level models of human behavior that gradually increase in complexity until they can make claims about the generalizability of their findings. However, to do so, people who do not fit inside the mold are sometimes suppressed as data outliers for their atypical responses. The individual worldview lens welcomes these individual outliers and reifies the study of individuals back into psychology (Hood et al., 2018). Personality psychologists have taken a liking to worldviews and have even redefined personality psychology as the study of traits and worldviews (Nilsson, 2014a). Worldview is at the core of the human personality but cannot be reduced to such even when looking at it from the individual lens. This is because we have both basic attitudes (i.e., primal world beliefs; Clifton et al., 2019) and complex concepts about the world that are continuously developing as we gain new information through our experiences (Naugle, 2002; Schlitz et al., 2010). For example, a religious individual may lose belief in a benevolent God after experiencing the loss of a loved one or act of injustice, which may result in a deconversion that fundamentally changes their worldview. The individual worldview of a person makes all the difference in which decisions they make, what goals they pursue, and how they judge and live with others (Koltko-Rivera, 2004). Therefore, it is important to understand the individual worldview of a person to truly understand their perspective. Operationally, the individual worldview lens appeals to personality, psychodynamic, humanistic, and positive psychology. Based on insights from Freud (1933) and Jung (1954), individual worldviews may be observed through case studies, personal narratives, or using psychoanalysis.

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Qualitative methods may produce advantages over traditional quantitative approaches by allowing individuals to manifest their worldviews using their own words, instead of using items determined by the experimenter.

Chapter Summary

This chapter presents a theoretical review of the literature on worldview. Worldview has a long history, dating back to antiquity, yet the term was not coined until Kant. Since then, worldview has remained a topic of significant theoretical discussion, only recently being assessed as a measurable construct. Across disciplines, worldview has been defined using differing assumptions which reflect the aims of each discipline. In psychology, worldviews refer to a set of beliefs and assumptions about physical and social reality. Studying worldview is itself a matter of worldview. An integrative levels model of worldview is outlined to correct for the nuanced approaches to studying worldviews in modern psychology and other sciences.

CHAPTER II

WORLDVIEW ANALYSIS IN CONTEXT

"In the social jungle of human existence, there is no feeling of being alive without
a sense of identity." – Erik Erikson (1968)

Much of the existing literature on worldviews pertains to the theoretical foundations and

structures of worldviews. More recently, the influence of scientific paradigms has led to a push

for empirical research in the social sciences investigating the boundaries, functions, and

correlates of various worldviews (Koltko-Rivera, 2004). Empirical studies surrounding

worldviews are growing, however, there lacks a standard approach for measuring worldviews. In

part, this is because of the three worldview lenses applied in the research described in Chapter I,

which has left room for methodological ambiguity and diversity. The heterogeneity in how

worldview is studied empirically stems from the application of both categorical and dynamic

worldview models. In this chapter, I discuss how theoretical approaches to worldview (i.e.,

categorical and dynamic models) guide the methodological investigations of worldview in

psychology. In doing so, I introduce some of the most distinguished empirical studies of

worldview to identify some of their strengths and the gaps in the research that I hope to fill.

Theoretical Approaches to the Scientific Study of Worldview

In comparison to the substantial theoretical attention given to worldview discussed in

chapter one, approaches to measuring worldview have been limited to a select group of research

teams. Due to the broad and inclusive conceptions of worldview discussed in the literature, it could be argued that any empirical study investigating human beliefs, values, language, motivation, relationships, etc., could fall under the umbrella of worldview research (Johnson et al., 2011; Koltko-Rivera, 2004). However, the following discussion of psychological studies of worldview are limited to those that explicitly claim to study worldview assumptions or beliefs using empirical methods.

Broadly, the theoretical approaches to measuring worldview can fall into two empirical models, categorical and dynamic (Koltko-Rivera, 2004). Categorical models of worldview measurement attempt to categorize individuals into qualitatively different groups based on a collection of beliefs. For example, Sire (2015) proposes that there are seven major collective worldviews identified in American and European culture: Christian theism, deism, naturalism, nihilism, existentialism, Eastern Pantheistic monism, the New Age, and postmodernism. Similarly, Freud (1933) identified four basic categorical worldviews: science, religion, philosophy, and art. Classifying worldviews based on categorical criterion can easily become problematic, as all these major worldviews represent a coherent belief system that likely doesn't represent the intricacy of any one person's worldview (Koltko-Rivera, 2004). Other worldview scholars propose worldview categorization models based on a collection of philosophical stances (e.g., normativism and humanism, Nilsson, 2014b) or religious identities (e.g., Christianity, Islam, Judaism, etc., Anderson, 2014). In America, classifying someone based on their political identity might also be considered categorical worldview classification, due to the qualitatively different beliefs across groups. Additional examples of categorical approaches to worldview will be discussed in the following sections, however, note that categorical models — like the

collective worldview lens — often oversimplify, and may misrepresent, the nuances of any given individual worldview.

The second approach to measuring worldview is using dynamic or multidimensional models. Dynamic worldview models, like many approaches to personality analysis, attempt to gain insight into the nuances of any one individual worldview. Multidimensional worldview models discern differences between individuals, and do not reduce the individual's beliefs to one dimension or category. Some of the most promising multidimensional worldview studies incorporate basic attitudes about the world (e.g., the world is a safe/dangerous place, Clifton et al., 2019) and include more personal topics such as agency, musical experiences, family and work life, and other social attitudes (Bou Malham, 2017; Koltko-Rivera, 2004). In practice, dynamic models can become very hard to understand due to their vast complexity. For psychology, dynamic worldview models are becoming increasingly favored due to their ability to account for high degrees of individual variance (Clifton et al., 2019; Koltko-Rivera, 2004). Categorical and dynamic models both serve a purpose for the advancement of worldview analysis in psychology, the importance lies in applying a model that best fits the research question in focus.

Quantitative Approaches to Worldview Measurement

To date, most empirical worldview studies have utilized quantitative methodology due to the lower costs and efficiency in data collection. There is currently a concentration of worldview research that investigates worldview assumptions (Bou Malham, 2017; Koltko-Rivera, 2000), environmental (i.e., primal) world beliefs (Clifton et al., 2019), and worldview clusters (Hedlund de-Witt et al., 2016 (Hedlund-de Witt et al., 2016; Nilsson, 2014b). Each of these empirical

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worldview investigations operate using similar definitions of worldview in psychology (citing Koltko-Rivera, 2004), but they all differ in their intentions to bring worldview to the forefront of psychological inquiry, with applications for clinical, environmental, and positive psychology. Primal world beliefs and assumptions reflect the dynamic worldview models, and the worldview clusters incorporate elements of both categorical and dynamic worldview models.

In 2000, Kolko-Rivera was a pioneer in bringing worldview investigation to the forefront of psychology and many other social sciences (Johnson et al., 2011). He conducted a systematic review of the worldview concept and created a Worldview Assessment Instrument (WAI) for use in counseling and psychotherapy (Koltko-Rivera, 2000). His massive 150-item assessment traverses topics ranging from human nature, social attitudes about SES, working, divinity, religion, country, and family (Koltko-Rivera, 2004). This assessment to worldview asks participants to rate, on a scale of one ("Disagree Strongly") to five ("Agree Strongly"), the degree to which they agree with a series of worldview statements such as "My family's needs come before my own" and "Human nature is changeable" (Koltko-Rivera, 2000). The WAI focuses on worldview through an individual lens by assessing many of the individual level factors relevant to counseling and psychotherapy. Koltko-Rivera (2004) was thorough in developing a dynamic model that assesses the many aspects of worldview (i.e., cognition, behavior, relationships, etc.), but due to the length and practical intentions of the assessment, the WAI has not been used often outside of clinical settings.

Following the lead of Koltko-Rivera (2000), Bou Malham (2017) developed the Worldview Assumptions Questionnaire (WAQ) which aimed to identify the structure and functions of worldview assumptions. He examined individual worldview factors such as a person's trust or mistrust of the world, belief in spirituality and mystical experiences, and human

purpose (Bou Malham, 2017). The WAQ consisted of 179 likert items rated on a scale of one

("Strongly Disagree") to five ("Strongly Agree"), such as "Humans everywhere are basically

good" and "Humans are unique because they have the ability to influence the external world"

(Bou Malham, 2017). Some of the factors of the WAQ (such as trust in the world) were

positively associated with well-being and meaning in life (Bou Malham, 2017).

Relatedly, Clifton and colleagues (2019) developed the 99-item Primals Inventory (PI-

99) to assess how basic beliefs about the world related to positive psychology outcomes such as

life satisfaction, well-being, and growth mindset. Primal world beliefs are environmental beliefs

that address basic attitudes about the world (e.g., the world is pleasurable, the world is beautiful,

the world is just; Clifton et al., 2019). In this inventory, participants were asked to indicate their

agreement with the primals statements on a six-point likert scale from, one ("Strongly Disagree")

to six ("Strongly Agree"). Notably, many of the primals were related to health and affective

outcomes, for example, beliefs about the world being safe, enticing, and alive were all positively

correlated with life satisfaction, and negatively correlated with depression and negative affect

(Clifton et al., 2019; Clifton & Yaden, 2021).

In contrast to the multidimensional measures of worldview listed above, Nilsson (2014b)

and Hedlund de-Witt and colleagues (2016) use a quasi-categorical approach to worldview

analysis by classifying individuals on ideological continuums. Nilsson (2014b) developed a

measure of worldview mapping individual's beliefs along two dimensions — humanism and

normativism. Similar to my ontological worldview poles (Figure 1.), Nilsson (2014b) posits that

humanist and normativist worldviews contrast on affective and relational domains. To assess the

humanist and normativist worldviews, participants completed 80 likert items (40 humanist items

and 40 normativist items), on topics relating to human nature, morality, relationships, and

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political values. Hedlund de-Witt and colleagues (2016) took a different approach by having participants choose one of four responses to a prompt, with each response corresponding to a major worldview (i.e., traditional, modern, integrative, and postmodern). At the end of the 17-item survey, responses are averaged to calculate a composite score indicating which major worldview best represents a person's beliefs, and which worldview they are most opposed to.

Nilsson (2014b) and Hedlund de-Witt and colleagues (2016) adopt a mixture of categorical and dynamic approaches by having set categories yet allowing variability in how much a person identifies with one category or another. Their quasi-categorical approach may limit the amount of insight into individual worldview however, the researchers had different aims for their psychological investigations into worldviews than the other models, focusing on the applying worldview clusters to political and environmental attitudes (Hedlund-de Witt et al., 2014; Hedlund-de Witt et al., 2016; Nilsson, 2014b; Nilsson & Jost, 2020).

Quantitative research endorses both categorical and dynamic worldview models that apply their evaluations to a range of pragmatic issues including mental health, well-being, political conflict, and environmental sustainability. The aforementioned worldview studies have all successfully implemented and validated psychological worldview research using cross-cultural samples, spreading the study of worldviews across the globe. However, there are several limitations to the quantitative approaches, including length of the surveys, which may produce fatigue effects, the potential for response biases (i.e., social desirability bias; Krumpal, 2013), and they operate under the assumption that participants are aware of their beliefs enough to quantify them. Additionally, only Hedlund de-Witt and colleagues (2016) present their worldview questionnaire as an enjoyable opportunity for self-reflection, which may be more consistent with qualitative approaches.

Qualitative Approaches to Worldview Measurement

In her study of psychology, religion, and culture, Pak (2020) promotes the use of qualitative inquiry to appeal to the full range of human experiences, which includes ordinary (e.g., rituals and moral codes) and extraordinary (e.g., mysticism, ego transcendence) religious experiences. This suggestion is compelling as worldview and religion are often conflated terms, some scholars have even gone as far as to say the field of religious studies should transition to a new title of "worldview studies" (Taves, 2020). Koltko-Rivera (2004) also advocates for qualitative approaches to the psychological study of worldview due to the nuances involved in capturing the dynamism of individual worldviews. In contrast to quantitative methods that require participants to select among fixed responses to indicate their beliefs, attitudes, or experiences, qualitative approaches allow researchers to observe personal narratives, build communities, and encourage interdisciplinary dialogues (Gergen et al., 2015; Rich, 2017).

Although there is a movement in psychology advocating for methodological diversity, particularly in qualitative research, there is currently a paucity of empirical worldview studies using these methods. Two studies claim to use qualitative approaches to worldview measurement, the Worldview Literacy Project (Schlitz et al., 2011) and the Faith Development Project (Streib & Keller, 2018), a mixed-methods study on the development of worldviews. The Worldview Literacy Project (WLP) was an education-based program that sought to enhance social consciousness in adolescents by implementing workshops to increase their self-awareness (Schlitz et al., 2011). Although the methods of this program are unclear, the WLP utilized some form of dialogue, experiential activities, and collaborative projects to allow students to reflect on and communicate their worldviews. The authors asked the students to reflect retrospectively on

how their worldview transformation occurred to develop a grounded theory of the development

of social consciousness (Schlitz et al., 2011).

Similarly, the Faith Development Project uses qualitative methods to investigate the

development of individual worldviews (Streib & Hood, in press). Central to this theory are six

aspects of worldview — perspective taking, social horizon, morality, locus of authority, form of

world coherence, and symbolic function, which the authors relate to Johnson and colleagues

(2011) six components of worldview. To measure worldviews the project utilizes the Faith

Development Interview (FDI), which is a 25-question interview that asks questions about life

review, relationships, values and commitments, and religion and worldview (Streib & Keller,

2018). Some example questions from this interview are as follows: "Are there any beliefs,

values, or commitments that seem important to your life right now", and "Do you think that

human life has a purpose?" (Streib & Keller, 2018). The researchers then evaluate participants'

narrative responses using an established coding framework that assigns a "style" to each

response. These "religious styles" exist along a developmental continuum, and range from one to

five, with five being characterized as dialogical, open to the strange (xenosophia), exhibiting

universalizing values, and having the ability to hold multiple perspectives in tension (Streib &

Keller, 2018). This multidimensional model of worldview is successful in measuring the nuances

of worldview using psychological methods and lends itself to narrative identity analysis and case

studies. One limitation of this model is that it does not ask participants to define worldview, or

develop a grounded theory of worldview, but rather applies an existing theory to fit the data.

Qualitative approaches to psychological worldview research are sparse to date but may be

a promising investment for researchers looking to deeply understand the components of an

individual worldview. Moreover, qualitative approaches may be more appropriate for measuring

atypical or abstract psychological phenomena, such as self-transcendence and mystical experiences (Pak, 2020). However, qualitative research can be both expensive and time-consuming. Depending on the materials needed, the study may require external funding to pay participants and researchers for their time. Additionally, in the case of the FDI, data collection efforts (i.e., interviewing) can span multiple hours, and coding can also be extensive.

Chapter Summary

Both quantitative and qualitative approaches provide valuable insights into the functions of worldview beliefs on behavior, well-being, identity, and social attitudes. Research on worldview ranges in its application to the field of psychology, with some measures aiming for "gut-level" beliefs about the world (i.e., primals) to more meditated reflections on your life story (i.e., the faith development interview). The cost of implementing longitudinal qualitative research may be unachievable without external funding, but the insights it may provide into individual worldviews is unmatched by traditional quantitative approaches. Conversely, the cost-effectiveness and methodological efficiency of quantitative worldview research may be a more practical adoption of the worldview measures discussed in this chapter. Depending on the research question, researchers can apply either quantitative or qualitative approaches to investigate the associations between worldview assumptions and beliefs to other areas of psychological inquiry, such as purpose in life, prosocial behavior, and mental health.

PART II

A LOOK INTO PHILOSOPHICAL WORLDVIEWS

ABSTRACT

The goal of this chapter is to establish new avenues within the psychological study of worldview, by introducing the Philosophical Worldview Questionnaire (PWQ) as a new assessment for studying worldviews. I report data from 159 participants who completed the PWQ, in addition to several items indicating their attitudes towards taking the PWQ. Using thematic analysis, this study identified themes across three categories of worldview statements: existential (beliefs about what exists and what does not), evaluative (beliefs about what is good or bad), and pre/proscriptive (beliefs about what is desirable or undesirable?). The study identified several dynamic themes for existential and pre/proscriptive worldview statements, however the PWQ did not sufficiently elicit evaluative statements. The majority of students reported the PWQ gave them an opportunity to reflect on their existential beliefs and was a meaningful, interesting, and enjoyable experience. Future directions for the PWQ as a measure are discussed.

CHAPTER III

WHAT IS A PHILOSOPHICAL WORLDVIEW?

"Philosophy has often been defined as the quest or the vision of the world's unity. We never hear this definition challenged, and it is true as far as it goes, for philosophy has indeed manifested above all things its interest in unity." – William James (1907, p. 50)

Like many other worldview scholars (e.g., Johnson et al., 2011; Koltko-Rivera, 2004; Taves et al., 2018; Vidal, 2008), I understand worldview to be an integrated set of beliefs and assumptions about the world that are related to one's answers about "Big Questions", namely ontology (what exists and what is real), epistemology (how do we find truth), semiotics (how do we find and make meaning from symbols), axiology (what is good and valued), teleology (what are the ultimate ends/goals of our life), and praxeology (what are the actions we should take). These questions are the foundation for studying worldview psychologically and have been asked by philosophers for centuries in one form or another (Koltko-Rivera, 2004). Worldview scholars indicate that wherever ultimate concerns are present, so are worldviews (Koltko-Rivera, 2004; Sire, 2015; Taves et al., 2018). What exactly do we mean by the "Big Questions", and how might responses to these questions indicate a person's worldviews?

The Big Questions

The "Big Questions" refer to a set of archetypal philosophical questions that have been debated since antiquity. The "Big Questions" encompass human existential quandaries concerning the ultimate conditions of life such as the riddle of death, suffering, and

impermanence (Sire, 2015). Although there is no set definition of the "Big Questions", they are understood to be the most important questions humans ask of the world and themselves at any given time (Hawking, 2018). Saying that some question is of utmost importance is the same as saying it is of ultimate value. Hawking (2018) suggests some of the "Big Questions" that humans face today are regarding the origins and nature of the universe, extra-terrestrial exploration, and artificial intelligence. Throughout time, there have been a number of great ideas that have attempted to resolve these universal questions about life, some of which include good and evil, God, the nature of the mind, evolution, life, death, Truth, free will, and many other existential topics (Adler, 1952/1990). Recently, existential philosophers and psychologists have emphasized the role of culture in buffering how humans experience suffering and coping in response to existential threats presented by these "Big Questions" (Sullivan, 2016). Additionally, researchers have contended that cultures (i.e., collective worldviews) shape and filter our beliefs about ultimate reality, especially as it relates to personal identities and worldviews (Sullivan, 2016). Therefore, the "Big Questions" humans face are shaped by the dominant collective worldviews that they are touched by in their lives.

Implications for the Current Study

Based on the theoretical discussions of philosophers and psychologists, I define a philosophical worldview as an individual or collective set of explicit beliefs and assumptions about the world in light of the "Big Questions" in life, and the ultimate conditions of reality and existence. What philosophical worldviews try to get at by asking the "Big Questions" is the universal worldview lens, however, the way it is being observed in this study is more a reflection of the collective and individual worldview lenses. For many worldview scholars, beliefs about

ultimate reality and existence are "uninterpretable without a worldview" (Koltko-Rivera, 2004, p. 20) I intentionally emphasize the explicit nature of philosophical worldviews, due to the idea that they represent some coherent philosophy on life (Jung, 1954). Based on the idea of the "Big Questions" being dependent on time and place, I propose that what is considered a "philosophical worldview" may also be time and culture dependent. In this way, individual "philosophical worldviews" are dependent upon both collective worldviews of a specific time, place, and culture in addition to individual experiences with the world.

The idea of philosophical worldviews is described as the central dependent variable in the present study, as the PWQ attempts to assess worldviews in light of the "Big Questions" in life, including some of the antiquated questions about the origin of the universe, the afterlife, and God (Adler, 1952/1990), in addition to more contemporary "Big Questions" related to happiness, covid-19, and the future of humankind. The implications of combining qualitative methods to assess answers to some of the "Big Questions" is that this study will explore the significance of investigating worldviews through an integrated philosophical and psychological perspective.

CHAPTER IV

THE PHILOSOPHICAL WORLDVIEW QUESTIONNAIRE

"When the storm rages and the shipwreck of the state threatens, we can do nothing more noble
than to lower the anchor of our peaceful studies into the ground of eternity. "
– Johannes Kepler

In 2013, a Polish-American pediatrician and scholar, Dr. Tomasz Voychehovski (Dr.

Tom) set out to create a guide for people to work on their personal worldviews. He collected 13

of the most archetypal philosophical questions (i.e., the "Big Questions"), and along with his

daughter, Sophia Voychehovski, developed a website (philozophy.com) where individuals could

submit their own answers to these questions, as well as, review the answers of others. Working

with Sophia, Tom created several interactive functions to his website, including a rating system

where a person could vote others' answers into a collection of "funny", "controversial", "mind-

blowing", "useful", and "wise" worldview beliefs. This function was intended to make the

website interactive and invite additional engagement into reflecting on one's own beliefs. They

also developed a featured "Philozophers" section, where people could access the estimated

responses of wise and famous people's worldviews by selecting direct quotes that best matched

the questions (Voychehovski & Voychehovski, 2013). The Philozophers section includes famous

philosophers like Aristotle, Socrates, and Kant, as well as other notable figures such as Mother

Teresa, Martin Luther King Jr., Eleanor Roosevelt, and Albert Einstein to name a few.

This exciting new creation stemmed from the idea that we all have something to learn

about our worldviews, and we may learn more about our worldviews by reflecting on the

worldviews of others. Due to his life-long career in the medical industry and his humanist ideals, Dr. Tom believes that by reflecting on our answers to life's biggest questions we may strive towards universal harmony and tolerance — a large ambition indeed, but one he saw worth striving for. A few years later, he looked to expand upon the goals of philozophy.com by applying his methods to educational, self-improvement, and diversity training workshops.

"My Worldview: Dr. Tom's Method"

In 2019, Dr. Tom set out to apply these methods to educational settings by developing a worldview owners' workbook, called "My Worldview: Dr. Tom's Method" (Voychehovski, n.d.). *My Worldview: Dr. Tom's Method* is a handbook that serves as a guide to working on one's personal worldview by answering a relatively few and constant —since antiquity— so-called "Big Questions"- like "what exists", "what is the meaning of life?", or "what happens after death?" (see Appendix E) It is his belief that these questions determine your worldview.

Dr. Tom defines worldview as "a set or system of beliefs, opinions, and convictions summarizing one's understanding of the world." (personal correspondence). Similar to other worldview scholars (e.g., Kolko-Rivera, Vidal, etc.), he believes that every individual has a personal, unique worldview which even though maybe unconscious, or not verbalized (i.e., implicit), guides one's every action or opinion. To Dr. Tom, the term worldview is becoming increasingly useful and popular as the world becomes more secular, more educated, reflexive and individualistic. He developed *My Worldview: Dr. Tom's Method* with the belief that working on one's personal worldview might be attractive and interesting for many people, and even help them to navigate our modern world.

This worldview workbook was tested in two community settings — a Humanist Assembly, and a Unitarian Universalist Church. Dr. Tom reports the workshop was successful in achieving both engagement and open discussion around sensitive topics (Voychehovski, n.d.). The workshop was divided into 13 sessions (one for each question, Appendix E), each having the following structure: (1) reflecting on the previous session, editing your response, and discussing new observations (except for the first session), (2) facilitator presents new material on the topic of the week, everyone has 10 minutes to write their response to the question in silence, (3) everyone reads answers out loud to the group, and (4) a group discussion. The facilitator is instructed to emphasize to the group the importance of being honest and genuine in their answers, and for everyone to discuss the topics with an open mind and an eye towards respect. Following this pilot program, Dr. Tom attempted to again expand upon his goals and apply this worldview guide to an empirical setting.

Development of the Philosophical Worldview Questionnaire

In the fall of 2020, Dr. Tom approached a prominent researcher and scholar in the area after auditing one of his courses —Dr. Ralph Hood Jr., who is a world-renowned expert in the Psychology of Religion— about integrating his worldview questions into an empirical research investigation. Together, a team of researchers (including the author) reviewed and expanded Dr. Tom's worldview questions to develop the Philosophical Worldview Questionnaire (PWQ). The "philosophical" labeling of the PWQ came from the authors' observance that the questionnaire focused on the archetypal questions often discussed in philosophy classes and literature. This addition narrowed the scope of the questionnaire from being an exhaustive survey of worldview, to a more modest focus on the philosophical and existential questions that inform an individual's

worldview. A "philosophical worldview" is a term coined by the author to describe a person or groups beliefs and assumptions about the world in light of the "Big Questions" in life and the ultimate conditions of reality/existence (see Chapter 3 titled "What is a Philosophical Worldview").

When the research team met, they discussed and approved each of Dr. Tom's original 13 questions (Appendix E) and included three additional questions deemed important to round out the questionnaire. The three questions were "what is your life philosophy?", "what is the role of religion?", and "what are your thoughts on the ongoing COVID-19 pandemic?" The first question on life philosophy was inspired by Jung's conception of worldview as a philosophy on life (Jung, 1954). Asking about a person's life philosophy may provide an opportunity to summarize their philosophical worldviews in a few direct statements about their personal meaning, guiding axioms, and values. The second question on the role of religion was included to complement the question on the role of evolution, as the two are often held in contention, especially within members of marginalized communities (e.g., Barnes et al., 2020). By adding this question, the researchers could also explore individual's beliefs about the role of religion in the modern world. The third question about COVID-19 was added to collect beliefs on a worldwide phenomenon that has drastically changed the lives of many individuals. COVID-19 is arguably one of the most significant events to happen in modern life and warranted a space on a questionnaire assessing worldviews.

With the addition of the new questions, the PWQ was now composed of 16 open-ended questions. Since the time of its inception, the questionnaire has been introduced to several academic associations, including the Association for Psychological Science (Swanson et al., 2021a), the American Psychological Association (Swanson et al., 2021b) and the Southeastern

Psychological Association (Swanson et al., 2021c) through conference presentations. As an unpublished measure of worldview, one of the goals of this thesis is to evaluate the quality of the PWQ as a measure of philosophical worldviews.

Goals and Intended Implementation

Dr. Tom's workbook is intended for both face-to face group experiences, such as classroom exercises in the humanities (e.g., philosophy and anthropology) and social sciences (e.g., psychology and sociology), but can also be used for online diversity, equity, and inclusion training and self-improvement workshops. The goal of this collection of worldview questions is to get people thinking about the "big questions" in life to encourage worldview reflection and critical thinking. By making individuals state their beliefs in writing they are prompted to make explicit what often goes unsaid, and thereby examine their own lives.

The PWQ may also be adapted as an educational resource, but the new purpose of this questionnaire is to assess the contents of an individual worldview to make psychological and philosophical observations about the phenomena of worldviews. All in all, the PWQ has three explicit goals: (1) get individuals to think more deeply about life and their role in it, (2) assess individual's worldviews to identify themes among responses and elements of individual differences, and (3) to join individuals over philosophical discussions by increasing participation on an open-access worldview platform (philozophy.com). In the coming chapter, I review pilot data collected from students who completed the PWQ and assess their worldview statements as well as reflections on the value and utility of asking the questions identified in the PWQ.

CHAPTER V

WORLDVIEW ANALYSIS IN COLLEGE STUDENTS

"What is necessary to change a person is to change his awareness of himself."
― Abraham Maslow

Introduction

A person's beliefs about the world ― including beliefs about oneself, the future, and their

environment ― play a critical role in shaping their behaviors, goals, relationships, cognition, and

emotions (Beck et al., 1979; Koltko-Rivera, 2004). In psychology, a person's beliefs and

assumptions about the world, including how we describe the universe and the life within it, refers

to the concept of worldview (Koltko-Rivera, 2004). Worldview is becoming an increasingly

popular concept among psychologists and other social sciences (e.g., Clifton et al., 2019; Clifton

& Yaden, 2021). One reason for this is that many researchers have critiqued psychologists for

overlooking the importance of worldviews as they manifest themselves in personality, well-

being, and other social psychological phenomena such as intergroup conflict and environmental

attitudes (Clifton et al., 2019; Hedlund-de Witt et al., 2014; Nilsson & Jost, 2020). One

limitation of this new initiative to integrate worldview into mainstream psychology is the lack of

a unifying comprehensive worldview framework, which was only partially achieved by Koltko-

Rivera (2004). Part 1 of this thesis addresses the problem and provides new directions for

studying worldviews.

Another shortcoming of current empirical investigations into worldview under a psychological perspective is the scarcity of qualitative studies attempting to measure worldview dynamically. Therefore, there is a lack of methodological direction for studying worldview using qualitative methods. This seems to be a gap in the literature, as many worldview scholars suggest qualitative methods may provide advantages over quantitative methods for studying individual worldviews (e.g., Johnson et al., 2011; Koltko-Rivera, 2004). Although there is not a unifying method for studying worldviews qualitatively, researchers suggest that worldview beliefs may be observed by using worldview statements (Koltko-Rivera, 2004).

Worldview statements are the explicit statements that serve as "windows" into a person's worldview (Koltko-Rivera, 2004, p. 5). According to Koltko-Rivera (2004), there are three types of beliefs that can be classified as worldview statements based on Rokeach's (1973) theory of values — existential, evaluative, and pre/proscriptive beliefs. Existential beliefs refer to beliefs about what exists and what does not exist, regardless of whether or not they can be proved true or false (Koltko-Rivera, 2004; Rokeach, 1973). These beliefs encompass a wide range of philosophical concepts classified by ontology, such as cosmology (i.e., the cosmos), human agency, and the afterlife (Vidal, 2008, 2012). An example of existential beliefs could be "God exists and created the universe", or "Unicorns aren't real". The next type of belief, evaluative, refers to beliefs about what objects or experiences are good or bad, righteous or evil (Koltko-Rivera, 2004; Rokeach, 1973). This type of belief is often related to moral or ethical beliefs and can be observed through statements like "Harming others is bad" and "Being selfless is a good thing". The last type of belief, pre/proscriptive beliefs refer to beliefs about what goals, behaviors, and relationships are desirable or undesirable (Koltko-Rivera, 2004; Rokeach, 1973). Values fall into this category of belief (Koltko-Rivera, 2004; Rokeach, 1973). Proscriptive (i.e.,

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prohibiting) beliefs refers to undesirable objectives or behaviors (e.g., you shouldn't eat cookies before dinner"), and prescriptive (i.e., prescribing) beliefs refers to desirable ends (e.g., "we should all strive for happiness").

Worldview statements refer to verbal expressions regarding any of the three beliefs described above but cannot be reduced to any one set of beliefs, because worldviews are integrated belief systems that include all three. Worldview statements may be an effective way to observe worldview characteristics, as worldviews exist largely implicitly or even subconsciously (Jung, 1954; Koltko-Rivera, 2004; Sire, 2015). Furthermore, worldview statements may be a promising avenue for relating worldview to other forms of identity such as self-concept, self-esteem, and group memberships. To my knowledge, worldview statements have not been assessed using qualitative methods. Many of the quantitative worldview studies incorporate worldview statements into their models (e.g., "the world is good/bad", Clifton et al., 2019), but do not provide opportunities for participants to express worldview statements using their own words. The present study uses worldview statements as the criteria for assessing philosophical worldview beliefs, and in doing so opens the door for additional worldview exploration.

Summary

The study of worldviews has yet to settle on an agreed upon empirical paradigm. Although worldview scholars advocate for qualitative approaches to study worldviews (e.g., Johnson et al., 2011; Koltko-Rivera, 2004; Pak, 2020), there is not yet a standard for evaluating worldviews using qualitative methods. Kolko-Rivera (2004) identifies three types of beliefs expressed as worldview statements: existential (beliefs about what exists and does not exist), evaluative (what objects or experiences are good or bad), and pre/proscriptive beliefs (beliefs

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about what goals, behaviors, and relationships are desirable or undesirable). There is still room for development in terms of studying worldviews from a psychological perspective. The current study takes a necessary first step in studying philosophical worldview beliefs and statements using qualitative methods.

The Current Study

The current study is an exploratory investigation that looks to identify which worldview statements are most prevalent among college students who completed the Philosophical Worldview Questionnaire (PWQ). The purpose of this study is not to judge or infer about the consequences of these worldview statements on other dimensions of personality or social life, but rather to describe the most common worldview statements among this sample of college students. In doing so, I will describe how students' philosophical beliefs about the world — such as the origin of life, meaning, morality, and death — share similar patterns, and differ across individuals. Additionally, I explore the possible benefits and utility of participating in the PWQ by looking at attitude self-report data and student observations. The PWQ has yet to be used for empirical studies into worldview, so the current study also explores the quality of the PWQ as an exercise and assessment for worldview.

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Methods

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Participants

This study recruited a total of 172 undergraduate students from a medium sized university in the southern United States. All participants provided informed consent per the university's IRB guidelines (see Appendix A). The students completed the survey as an optional

assignment for an upper-level psychology course. Participation was contingent on their consent to complete the study survey, and they were notified that they could leave or end the survey at any time with no penalty. All students who attempted the survey earned course credit. The students were recruited across two semesters, with 105 and 67 from the fall and spring semesters, respectively. A total of 13 students were excluded from the study for not completing at least three-quarters (12 of 16 questions) of the open-ended worldview questionnaire. The exclusion criteria were determined based on the approximated 'completeness' of the worldview questionnaire, determined by the researcher. This left 159 students who sufficiently completed the worldview survey. Student demographics can be found in Table 2.

 One student did not complete the demographics survey, so they were considered missing data. Of the 158 students, the sample was predominantly female (81%), followed by male (17.7%), and two self-identified as "other" (1.3%). The age range of students was mostly between 18-25 (94%). The majority of students identified themselves as having a race/ethnicity of White or Caucasian (70%), however, some ethnicities were more represented than others (i.e., African American vs. Hispanic).

On the religious/spiritual dichotomy, roughly 51 percent of the students identified themselves as "more spiritual than religious", followed by "equally religious and spiritual" (30.4%), "neither religious nor spiritual" (8.2%), and "more religious than spiritual" (1.9%). In terms of religious identity, most students were Christian (58.9%), followed by Agnosticism (19%), and the "other" category (11.4%). Notably, some religions were not represented in this sample (i.e., Islam and Judaism), nor were eastern religious identities prevalent (i.e., Buddhism and Hinduism). Concerning political identities, the most prevalent was Democrat or Liberal (46.8%), followed by Independent (19.6%), "other" (15.2%), Republican or Conservative (12%),

and Libertarian (6.3%). Given the identity-based nature of worldviews described in Part 1, it is important to consider sample demographics as they relate to this study. Specifically, the sample is strong in some diversity characteristics (i.e., ethnicity, and religious/spiritual beliefs), relative to others (i.e., age, gender, and religious/political identities). The current study does not attempt to generalize based on its findings, but only to describe observations in the data.

Materials

For this study, I gathered survey data using Qualtrics XM (Qualtrics, n.d.). Data were exported to Microsoft Excel 2016, where they were cleaned and coded for missing values before importing the quantitative data into SPSS version 27 (IBM Corp, 2020) to perform descriptive analyses. The qualitative responses of each student were transferred into separate Microsoft Word documents and given aliases to serve as identifiers. For the qualitative analysis, the data were coded in Microsoft Word before importing the coded data back into Microsoft Excel.

Measures

Demographics and Attitudes Towards Taking the PWQ

Students completed a demographic questionnaire to indicate their age group, gender, race/ethnicity, religious identity, political identity, and religious/spiritual orientation (Appendix C). Students indicated their attitudes toward taking the PWQ by completing seven questions on a 5-point Likert scale, with one being strongly disagree and five being strongly agree. The questions asked how interesting, meaningful, or helpful the experience was in clarifying and reflecting on their beliefs (Appendix D). Students also responded to two open-ended questions

Table 2 Participant Demographics

Characteristics	*n*	%
Gender		
Female	128	81.01
Male	28	17.72
Other	2	1.27
Age Group		
18-25	149	94.30
26-40	8	5.06
41-60	1	0.63
Race/Ethnicity		
Black or African American	23	14.56
Asian	5	3.16
Hispanic/Latinx	3	1.90
Native Hawaiian/Pacific Islander	1	0.63
Two or More	13	8.23
White or Caucasian	111	70.25
Other	2	1.27
Religious/Spiritual		
Equally Religious/Spiritual	48	30.38
More Religious than Spiritual	3	1.90
More Spiritual than Religious	81	51.27
Neither Religious nor Spiritual	13	8.23
Religious Identity		
Atheism	10	6.33
Agnosticism	30	18.99
Buddhism	4	2.53
Christian	93	58.86
Hinduism	1	0.63
Pagan	1	0.63
Unitarian	1	0.63
Other (not listed)	18	11.39
Political Identity		
Democrat or Liberal	74	46.84
Independent	31	19.62
Libertarian	10	6.33

Republican or Conservative	19	12.03
Other	24	15.19

Note: *N* = 158. One case was excluded for missing values. Values in this table are rounded to two decimal places, so the percentages may not add up to 100.

asking what about taking the PWQ was meaningful, and what the value of asking these types of questions is (Appendix D).

The Philosophical Worldview Questionnaire

As an assessment of worldview and exercise of worldview reflection, the research team developed the Philosophical Worldview Questionnaire (PWQ; Voychehovski et al., 2020) To review the development of the PWQ, see Chapter 5. The PWQ is a 16-item free response survey that allows participants to respond openly without limiting answer possibilities to assess individual differences. Questions range from "What is your life philosophy" to "What is the origin of good and evil" and "What happens after death" (Appendix B). The PWQ is the foundation of the current investigation and is the central measure used to assess worldview statements. In this study, the PWQ will be used to address existential, evaluative, and pro/prescriptive statements, which are considered windows into a person's worldview (Koltko-Rivera, 2004).

Procedure

As an optional assignment for an upper-level psychology course, students accessed the survey via Canvas. After completing the informed consent form, participants were prompted to complete the 16-item PWQ (Appendix B). One question was presented on the screen at a time

before they selected to advance to the next question. The participants had no time limit, were able to stop and finish at a different time and were not penalized for an incomplete response. Following the PWQ, participants completed additional survey questions which included a set of items assessing attitudes towards taking the PWQ and two open-ended clarifying questions (Appendix D). This design was intended to measure student's attitudes about the PWQ immediately after completing the worldview exercise. Students then answered demographic information before being prompted to review their responses. This provided students the opportunity to revise or reflect on their responses before submitting the survey. Once the survey was completed, students were taken to an exit screen where they were thanked for their participation.

Research Questions

Research Question 1

What are the existential, evaluative, and pro/prescriptive worldview statements observed in students' "philosophical worldviews", using the PWQ?

Research Question 2

What are students' attitudes towards this exercise of worldview reflection, and are there potential benefits to taking the PWQ?

Research Question 3

How well does the PWQ function as an assessment of philosophical worldview; and how can this measure be improved for use in the future?

Analyses

This study uses exploratory qualitative analysis techniques to record observations found in the data to fit a priori theory of the psychology of worldviews. As the use of qualitative methods to evaluate worldviews is not well explored in the literature, I adopted an a priori coding framework based on Kolko-Rivera's (2004) description of existential, evaluative, and pre/proscriptive worldview statements. The current study uses thematic analysis to identify meaningful patterns among each of the three worldview statements (Braun & Clarke, 2012). The analysis consisted of four stages identified by Braun and Clark (2006): familiarization with the data, developing base level codes for each of the worldview statements categories, grouping base level codes into subthemes, and developing themes from the subthemes.

In stage one, I began by importing each student's responses into separate Microsoft word documents, where I then reviewed each student's answers, occasionally stopping to note observations. After familiarizing myself with the data, I began coding participants' responses according to the three categories identified by the a priori theory of worldviews (i.e., existential, evaluative, and pre/proscriptive; Koltko-Rivera, 2004). The base codes developed in the second stage were short summaries of the data using the student's own words. Next, the base level codes were grouped into subthemes that used similar language and were focused on the same topic. During the final stage of coding, I sorted the subthemes into theoretically related themes that represented elements of a broader concept. I then went back and reviewed the base level codes to ensure they corresponded with the themes and subthemes they were grouped into.

To assess the student attitudes and observations about taking the PWQ, I took a less structured approach, essentially identifying common themes in the data without going through multiple levels of thematic groupings. This analysis strategy was appropriate for these responses

since they were very brief and to the point (i.e., they were often only one sentence or a short string of words). The qualitative student responses are presented as general observations, rather than themes in the data.

This study reports descriptive quantitative data to assess both attitudes towards taking the PWQ, and response length for each open-ended question of the PWQ. The data for the individual question and total word counts were cleaned and computed in Microsoft Excel and then imported into SPSS for further normality testing and descriptive analyses. Due to the high number of exemplary outliers in the data, descriptive statistics for word count were calculated for both the total data and with outliers excluded. To assess attitudes towards taking the PWQ, the data labels (i.e., "strongly agree") were transformed into numerical values (i.e., 5) before being imported into SPSS for descriptive analyses.

Results

Worldview Statements

In this study, worldview statements in each category (i.e., existential, evaluative, and pre/proscriptive) were consistent with specific questions in the PWQ (Table 3), but occasionally there were cases when categories of codes would arise in other questions. Often, worldview statements were embedded in common sayings, quotes, or proverbs, which is an observation that exclusively resulted from qualitative narratives. Some of these aphorisms reflect familiar sayings such as "life is a journey", "if there is a will, then there is a way", and "everything happens for a reason". When fitting the data from the PWQ into the existing theoretical framework, worldview statements were far-reaching and informative in describing a person's philosophical worldview.

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In many cases, responses were binary in form (e.g., exist/not exist, good/bad, desirable/ undesirable), but the context of their statements illuminated the many nuances of worldviews.

Table 3 Worldview Categories and Key Questions

Category	PWQ Questions	Sample Quote
Existential	Origin, Made of, Free will, God, Evolution, Death	"I believe our souls are recycled. I think new ones are added into the mix every now and then but ultimately I think that there's a lot to be read into with the term old soul"
Evaluative	Good, Evil, COVID, Philosophy of life	"I believe that there are good people and bad people"
Pre/proscriptive	Happiness, Meaning, Philosophy of life	"The meaning of life is to find happiness"

Existential Statements

Existential statements refer to explicit beliefs about what exists and does not exist (Koltko-Rivera, 2004; Rokeach, 1973). Existential statements were abundant across responses, and this category accounted for the most questions across the PWQ (Table 3). Topics falling into this category include statements about God, the universe, material and immaterial life, afterlife beliefs, free will, destiny, and so much more. Due to the philosophical focus of the PWQ, existential statements closely reflect the content of many of the questions.

God, the Big Bang, and "Unknown Forces". In the beginning of the PWQ, students are asked cosmological questions about the origin and composition of the universe, which elicited many polarizing existential statements. For the majority of students, the tension lies between

religion and the Big Bang, while others were uncertain about the origin of the universe. However, some students provided statements that reflected an openness towards integrating religion and science.

> I believe that God created the Universe. In Genesis, it stated that "In the beginning, God created the heavens and the earth" and then God said "Let there be light"... Many scientists believe in the Big Bang Theory… I believe that this explosion could have occurred and been created by God, in order to form the universe, Earth, and life. In my opinion I believe that a greater being had to have created the universe, due to its complexity and unique beauty. I believe that the creation of the universe was planned and intentional, rather than a random explosive event.

Although this student had one of the more thoughtful responses on this question, her answer to the question about the origin of the universe illuminates many qualities of the universe, such as it being created, intentional, and beautiful. In a small number of students, they suggested that God and the creation of the universe are unknown, however, they believed in a "higher power" or "force". Others outright reject the idea of the existence of a God, and instead said things like "God is a concept" or instrument for people to rely on as a "safety net" or "coping mechanism".

Despite some nuanced beliefs, the majority of students did indicate that they believed in God in some form or another. Based on the question about who or what is God, many described attributes to God, such as being the "creator", "all-knowing", "all-good", "all-powerful", "eternal", "love", "a friend", the "savior", "judge", and many more qualities. Some also report the existence of other religious figures such as Buddha and Jesus.

Life, Death, and Extinction. The second most common existential statements were those concerning belief or disbelief about life after death. The responses in this theme mostly came from the questions about what happens after death and what will happen to humankind. For most participants, these worldview statements fall into three subthemes: there is an afterlife, we cease to exist, and our energies are put back into the world. The most common afterlife belief was that there is a heaven or hell, and some included purgatory. To many, where we go after death is dependent on how we live our lives on earth. As one student put it, "I believe if you were a good human being you go to heaven…If you were a bad human being, you go to hell and get punished." Some students even go as far as to say that, in order to go to heaven, you must be a Christian or have a relationship with Jesus. Not all students were as specific though, noting that souls "exist beyond our bodies … and live on in a different world." Less common, but still present, were beliefs that "nothing happens after death" and we "cease to exist".

Other students believed that "our souls are recycled" and put back into the world. For some this meant being reincarnated into other forms of life as "our souls go through processes of spiritual ascension", and for others this meant "the spirit stays around loved ones and protects them." Not all students took a spiritual approach in this subtheme, with many saying, "physically the body decays" and "our energy is transferred to the Earth."

The most surprising existential statements within this theme came in response to the question about what will happen to humankind. Over half of the students stated that humankind will one day cease to exist. Although there were several reasons students gave, some of the most common were related to climate change, wars, famine, and extraterrestrial annihilation. On a positive note, many others stated their belief that humankind will live on in the future.

What the Universe is Made of. In question two of the PWQ, students provided existential statements about what the universe is made of. The most common statements were that the universe is "made up of energy, matter, and space." Consistent with this quote, many students' beliefs about the composition of the universe were scientific in nature, with some reporting that "science tells us what the universe is made of." Many of the students expanded upon their beliefs about energy, matter, and space and included other elements within the universe such as "atoms", "particles", "molecules", "planets", "stars", and "galaxies." Others focused more on living things like "people", "plants and animals", "dinosaurs", and even "extraterrestrial life forms." At times, students reported that there are supernatural "energies" and "entities" that are present in the universe. Others focused on metaphysical elements of existence such as "time" and various "realities", or a "multiverse." What distinguishes this theme from other existential statement themes is that the majority of responses were scientific in nature and relied heavily on students' scientific knowledge.

Free Will, Destiny, and the Universe. Existential statements about free will were mostly dichotomous, as the question "is there free will" motivates a binary response. Nonetheless, free will beliefs were anything but simple. The most common statements were that free will exists "to an extent". Many elaborated on this belief, saying that there are conditions outside of our control such as social influences and laws that prohibit us from doing some things or there will be consequences, but otherwise "we are mostly free." Less common was the belief that there is no free will, and our actions are determined by predestation or "hard determinism." According to some students, free will and determinism exist simultaneously. For example, one student indicated that he believes in free will and "also believe[s] in determinism in that our choices are

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based on past effects of our choices." Other cases where determinism and free will were seemingly compatible was in cases where students indicated that they believed in free will but also believed that "humans have a destiny" or "fate", "God has a plan for each of us", or "we are a part of something bigger than ourselves." A few students extended their free will beliefs to the universe and the world, saying things like "life is a constant cycle", and there is a "natural progression of things in the universe."

Evolution and Change. One of the more obscured beliefs about what exists were the existential statements about evolution and change. In response to the question about the role of evolution, many students indicated that it represented a natural process that describes why things change. While most students described what evolution was, it was not as clear through their statements whether or not it actually exists. However, what was clearer were the statements that outright rejected that evolution exists, although this was present in only a small number of students. The idea that there are external laws to the universe was overlooked by many, however, a handful of students reported existential statements about these natural laws, such as "the universe is eternal and has always existed", "the world as a whole is constantly evolving", "the universe was created over years of time", and "evolution helps us get closer to Truth." Many beliefs about evolution and change were only tacitly observed in the PWQ, and therefore were not coded as worldview statements. However, statements about the existence of evolution and change were common enough to identify it as a theme among existential statements.

A Look at the Mind, Body, and Soul. Distinct from other themes, students' existential statements reported many beliefs about the relationship between the mind, body, and soul. One

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of the most common existential statements was the belief in a human soul or spirit, which was indicated by over half of the students. Across several questions, students indicated belief in a human soul or spirit by using it to describe beliefs about death, "the soul lives on", "our spirit goes to either heaven or hell", and "our bodies pass on, but our souls are released, and the energy is recycled and put back into the world/universe for someone/something else." Other students indicate some metaphysical element to humans that explains our purpose, "we are spiritual beings just having a human experience." The question in the PWQ about the nature of the mind also led some students to describe the relationship between the mind, body, and sometimes the soul. As one student stated, the mind and body are separate in that "the brain is in accordance with the body, the mind is in accordance with the spirit … so the mind really can't function without the brain, but without the soul, the body can't fully live." Other students went further to say that the mind is or "refers to" the soul. Less common, but more nuanced statements about the mind, body, and soul regard the mind as "infinite" or "dual natured", and that humans have divinity within themselves.

Evaluative Statements

Evaluative statements refer to explicit beliefs about what objects or experiences are good or bad (Koltko-Rivera, 2004; Rokeach, 1973). Evaluative statements were the least frequently stated beliefs and were limited to only a few questions of the PWQ (Table 3). As good and evil are dichotomous constructs, many students' statements about what is good or bad, can also refer to the opposite (e.g., "selflessness is good" can also be understood as "selfishness is bad"). Since the PWQ asks about the origin of good and evil, rather than what objects, beliefs, or behaviors are good and evil, some of the coded evaluative statements speak more to where good and evil

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come from than what it means to be good. Although many students take a stance on good and evil, it was also common for students to state that morality was "subjective" or "relative" to a given place, culture, or situation.

Where Does Good and Evil Come From? More common than evaluative statements about what is good or evil, were statements about where good and evil come from. The question about the origin of good and evil often led students to respond using a more existential lens than an evaluative one. Nevertheless, responses to this question still reflect students' moral and evaluative beliefs.

The majority of students reported that goodness comes either from God or within ourselves. For the more religious students they would often say "good is created by God" or "goodness comes from God." Other students stated that "goodness comes from within", sometimes elaborating to say that goodness comes from our "heart" or "subconscious." On the other hand, the origin of evil had more explanations. Common responses were that evil comes from "defying our good nature", "evil comes from within", "going against God", "the Fall" or "Adam and Eve", "Satan" or the "Devil", and a small group of students believe "all things come from God, including evil." There was a consistency among responses of good and evil based on the religious or secular background informing students' worldviews.

What Does it Mean to be Good? Although not as frequent as existential and pre/proscriptive worldview statements, there was a significant amount of variability in the objects and behaviors students regarded as good or bad. Overall, there were more statements regarding beliefs about what is bad compared to good. Some of the characteristics students regard as good include empathy, love, kindness, honesty, respect, justice, patience, joy, mercy,

peace, innocence, selflessness, and so on. These characteristics were more passive related to actions classified as good, which included following rules, creating positive change in the world, helping others, having faith, and caring about something outside of themselves. Many students also believe that entities such as people and God are good.

Things evaluated as bad include many of the characteristics noted above in their opposite forms, such as selfishness and hate, but also include distinct characteristics like ignorance, greed, jealousy, and pride. Actions regarded as bad included murder, rape, revenge, discrimination, violence, and breaking the law. Similar to their evaluations of good, students also stated that entities such as people, the government, and the Devil are bad.

A common theme across students were their evaluative statements about Covid, which came from the question "what are your thoughts on the ongoing COVID-19 pandemic?" The majority of students viewed Covid as bad and said things like "it is hard to feel anything positive about the pandemic", "I'm absolutely devastated", and "I often find myself overwhelmed with fear and anxiety regarding how long this pandemic will last." One student even said that Covid was "the worst part of my existence." However, a smaller group of students saw Covid as a blessing in disguise in the way that it allowed people to "come together as one during difficult times" and served as a "learning experience."

Pre/proscriptive Statements

Pre/proscriptive statements refer to explicit beliefs about what objectives, behaviors, and relationships are desirable or undesirable (Koltko-Rivera, 2004; Rokeach, 1973). The majority of pre/proscriptive worldview statements came from the questions of happiness, meaning, and philosophy of life. This category of statements provided the second largest amount of codes, but

the variability in responses was much greater than for existential statements. In this experiment, pre/proscriptive statements were as diverse as the number of students in the study, as each student stated values using a variety of terms and phrases consistent with their own worldviews.

A Pleasant Life: Happiness, Enjoyment, Learning, and Peace. The most common theme among pre/proscriptive statements was that of living a pleasant life. Multiple subthemes emerged within this theme including "finding happiness", "enjoying life", "learning", and "attaining inner peace". Although there is a question specifically asking about how to find happiness, responses were not coded as pre/proscriptive statements unless they explicitly stated the importance of finding happiness, such as "the meaning of life is to find happiness", and "happiness is the key to life." Some students value happiness above all other things, for instance, when one student, in describing her life philosophy, states, "for me, that is happiness. I hope to find happiness, because beyond that, what is the point of life? If we do not find joy and happiness our life loses its value." Relatedly, students also emphasize the importance of doing things they enjoy, such as "hiking", "watching TV", "reading books", and other hobbies. For one student, she found enjoyment in "the little things" which included "long walks, beach trips, calm early mornings, and late wild nights." After my analysis, it was clear that most of the students value living a pleasant life full of happiness and enjoyment.

Other elements of the pleasant life included learning and attaining inner peace. Some of these statements were straightforward in that they expressed beliefs that "learning as much as possible" and "education" are valuable, but for some, learning was of ultimate value, "I believe I only exist to learn." For others, inner peace was most valued in which, "knowing yourself is the true key" to finding it. Some suggested processes such as "awareness" and "mindfulness" were

essential for "finding peace within." Other students expressed universal values of peace with humanity by learning to "coexist" so that we may "live in harmony with the world."

It's all About Perspective: Positivity, Living in the Moment, and Awareness. Often, students emphasize having some form of a desirable mindset or perspective on life. Some of the most common perspectives were having a positive attitude, living in the moment, and being self-aware. Students' statements indicate that focusing on the positive aspects of life is important and desired, with comments such as, "focus on the positive things in life rather than jumping straight to the negatives." Focusing on the positive was also related to beliefs about letting things go. As one student said, "don't take life too seriously … don't spend your time worrying." Seeing the "beauty in everything" was valued by many students and having a positive perspective on life was widely sought after. Another valued mindset expressed by many students was to "live within the present moment", and to live life "as if you were to die tomorrow." Having a present-oriented perspective was related to several other desirable perspectives such as being resilient and appreciative. As one student said, "I just believe that finding at least one thing to be grateful for each day can help raise optimism and, in some cases, help people to find joy in everyday things." The last subtheme was having self-awareness. Self-awareness included practicing "healthy skepticism" and questioning life, being open minded, and trusting one's instincts. For most students, positivity, present- mindedness, and self-awareness were desired perspectives worth having.

Living a Moral Life: Golden Rules, Authenticity, and Doing Good. Living a moral life was classified by kindness, care, honesty, respect, forgiveness, generosity, tolerance, and

doing good by others. To many students, kindness is a virtue that should be shared with other people. Some students express believing in a deeper moral calling, and value "living life in a way that is reflective of my morality and character", stating that there is "a right moral code to live by", emphasizing duty and responsibility. Additionally, many students express the belief in a "Golden Rule" — that one should "treat people how I would want to be treated." Other students are not as specific about what it means to live a moral life and simply state "be good" or "do good", but sometimes elaborate to say, "do the most good for the most people possible." For some, living a moral life entails being "honest", "authentic", and "staying true to your word." To students, being moral often goes beyond their relationships with people, as they believe in doing "good to nature" and "caring for all life within it." Lastly, for a few students, living a moral life extends universally to the world as a whole as they believed in "leaving the earth better than it was when I was born", taking "care of the planet", and "making the world a better place."

Relationships are Key: Love, Service to Others, and Positive Relationships. Positive relationships with others was present as a pre/proscriptive statement in over half of student responses. Most students valued having "good" and "loving" relationships. One student reported relationships as a terminal value when she said, "at the end of my life I hope to have met many wonderful people, had many good experiences, and leave a positive legacy." Among these students, desirable relationships spanned far and wide to include family, friends, significant others, strangers, pets, nature, and God. Many students stated that they valued "genuine conversations with people", "quality time with others", and looked forward to "having a family of my own." One important component tying these relationships together was love. As one student said, "the meaning of life is actually quite simple, it is to love. To genuinely love

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yourself, others, and God. From this simple principle, everything else flows from it." From this principle, emerged her desire to help other people and be kind.

Frequently, students related their desire to build and maintain positive relationships to another desire to serve others. To many students, this included making a difference in the lives of others, spreading positive energy, and helping those who can't take care of themselves. For example, one medical student said, "It's very important to me that I am able to help others who are in need." Another student stated that she hopes to help children that have gone through early life trauma. Other students often provided pro/prescriptive statements broadly regarding "service" to others and God, through giving, teaching, and spreading love and happiness.

Reaching Your Potential: Achievement, Purpose, and Autonomy. Pursuing and finding purpose in life was reported by many students as a goal worth achieving. To many students, it is important to have passions and goals, and to pursue activities that fulfill one's purpose. They describe it as worthwhile to "chase your dreams" and accomplish goals that they set for themselves. Notably, many students valued personal achievement and used this value as a motivation to "work hard" towards their goals and "live productively", all while "leaving a positive legacy." Complementary to values of purpose and achievement, were pre/proscriptive statements about individuality and autonomy. To some students, individuality constituted "minding your business" and "putting yourself first sometimes." Other students stated that "being different" was desirable, and one ought to do "what makes you feel like you are the only one alive." One student explained that you should "live as you want to and worry not about how others think of that."

Some students report that individuality and autonomy are the means for achieving personal growth and becoming their "best self." However, as one student reveals, what is one's "best self" may differ from day to day, "if my best self one day is laying in bed because I am too depressed to get up, then that is me being my best self that day." To some of the students who were represented within this theme, it was important to "make the most with what we are given", "grow from experiences", and "live life to the fullest." Reaching one's potential is no small task, but to some students, being your "best self" depends on achievement, purpose, and autonomy.

Reflections on Taking the Philosophical Worldview Questionnaire

Students completed a series of self-report items assessing their attitudes towards taking the PWQ, which asked to what degree they perceived the experience to be interesting, meaningful, and enjoyable. The items also assessed beliefs about self-awareness. To contextualize the quantitative attitudes of students, they also responded to two open-ended questions asking what was meaningful or valuable to them about taking the PWQ.

Student Self-reports

Means and standard deviations for each item can be found in Table 4. Overall, most participants either agreed or strongly agreed that taking the PWQ was a meaningful experience (72.8%), interesting (88.6%), and enjoyable (81.6%). Roughly three-quarters of participants either agreed or strongly agreed that taking the PWQ was helpful in clarifying and increasing their awareness of their existential beliefs. Nearly all participants (97.5%) agreed or strongly agreed that the PWQ gave them an opportunity to reflect on their personal beliefs.

Table 4 Participant's Attitudes Towards Taking the Philosophical Worldview Questionnaire

Question	Labels					Descriptives		
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	SD	% Agree or Strongly Agree
1. Taking the PWQ was helpful in clarifying my beliefs about existential topics.	3	7	30	88	30	3.83	0.89	74.7
2. Taking the PWQ was a meaningful experience for me.	3	7	33	87	28	3.80	0.89	72.8
3. Taking the PWQ gave me the opportunity to reflect on my personal beliefs.	0	0	4	63	91	4.52	0.65	97.5
4. Taking the PWQ increased my awareness of myself as one part of a larger whole, world or system.	0	9	29	68	53	4.04	0.86	76.6
5. Taking the PWQ increased my awareness of my beliefs about existential topics and/or questions.	0	6	17	85	51	4.14	0.75	86.1
6. Taking the PWQ was interesting to me.	0	5	13	68	72	4.28	0.83	88.6
7. I enjoyed taking the PWQ.	1	5	23	71	58	4.11	0.89	81.6

Notes: $N = 158$. Participant frequencies are listed above.

Qualitative Reflections

Student's qualitative reflections provided additional insight into the value and utility of the PWQ as an exercise of worldview reflection. For many, this questionnaire was an opportunity for students to reflect on topics that don't typically arise in conversation. The truth is, "people don't normally discuss these topics." As one student said, "I've never been asked to put this into words before." Asking these questions gave students the opportunity to reflect on their own experiences and identities with an eye toward the future, "I'm not just going to sit here and answer the questions to forget about it, I'm going to ponder these questions for days, weeks, or even the rest of my life." For most, at the very least, it was an opportunity for them to reflect on their lives, and according to one student, "the questions were very hard-hitting, and I had to stop and reflect with most of the questions to think about my own values and beliefs."

In addition to providing an opportunity for worldview reflection, by taking the PWQ online students experienced "judgment-free self-expression." As one student put it, "it was nice to think about and be able to voice my opinion without having someone try to argue or persuade me to think a different way." Taking the PWQ was also beneficial as writing their answers down made their beliefs and values "meaningful", "real", and provided a "sense of relief." For some students, making their worldviews explicit and concrete provided a sense of "self-assurance." One student reports she grew up a Christian and has been "insecure about no longer believing. Seeing my own morals and beliefs out like this helped me feel more pride in them." Another student said taking the PWQ was meaningful to him as he came to the "realization that I do not have firm truths but am open minded to various possibilities."

Some students also reported that taking the PWQ helped raise their awareness of where their worldviews came from and how it affects their life, by "realizing how my answers are

present in my daily life and how these thoughts and attitudes have been shaped by my life experiences, people around me, and my upbringing." Another student stated that the utility of the PWQ is found in "collecting perspectives and culminating a larger collection of data which reflects a portion of our collective human knowledge, leading to questions being answered more accurately in the future." However, not everyone reported the PWQ as meaningful or valuable, with two students saying it was "not very meaningful" and "begs people to question or realize their beliefs and values." Nonetheless, most students suggest that taking the PWQ was a valuable or meaningful experience in one way or another.

Evaluating the PWQ Using Word Count

To evaluate the utility of the PWQ as a measure of philosophical worldviews, I applied word count analysis to depict trends in the response length to each question of the PWQ. In doing so, I uncovered several "exemplary" outliers who modeled comprehensive worldview reflection. For example, one student's responses were nearly nine times greater than the average total word count. Although descriptions of word count may signal questions for closer inspection, it does not sufficiently describe the strengths and weaknesses of certain questions for worldview analysis. Therefore, I supplement the word count statistics with qualitative observations recorded during the worldview statement analysis in the discussion.

Descriptive statistics for word count are presented in Table. 5 and Table 6. The tables break down the word count descriptive statistics for the total questionnaire and individual questions. Due to the high performing nature of some "exemplary" outliers, they were removed from the data for an additional word count analysis, to depict central tendencies in typical student responses.

Table 5 Word Count Descriptives for the Philosophical Worldview Questionnaire

		Philosophy	Origin	Made of	Good	Evil	Free Will	Mind	Happiness
All Data									
	Min	1	2	1	1	1	1	1	2
	Max	1150	139	179	141	743	480	185	194
	Mean	65.08	34.97	25.48	34.06	35.35	36.14	28.9	36.64
	SD	100.16	30.93	27.76	30.37	62.96	45.71	24.47	30.92
Outliers Removed		7	7	11	10	5	3	7	7
	n	152	152	148	149	154	156	152	152
	Min	1	2	1	1	1	1	1	2
	Max	152	96	87	92	92	103	85	101
	Mean	52.16	30.55	20.05	28.5	28.43	32.05	25.6	31.98
	SD	35.53	24.63	17.00	21.92	22.83	26.85	17.21	22.95

Notes: N = 159 for all data. Sample size varies once outliers are removed. Mean and standard deviation indicates central tendency in the data, which may not be representative of any given case. Minimum and Maximum values indicate the range in the length of responses for each question.

Table 6 Word Count Descriptives for the Philosophical Worldview Questionnaire Cont.

		Truth	Meaning	Evolution	Religion	Death	God	Destiny	Covid-19	Total Word Count
All Data										
	Min	1	2	1	2	1	2	2	2	50
	Max	231	192	331	409	284	123	230	284	4515
	Mean	31.82	32.58	27.57	36.36	31.15	27.77	28.62	49.42	561.88
	SD	33.65	27.14	30.53	39.71	36.73	22.39	25.20	41.98	470.884
Outliers Removed		8	7	6	6	10	10	9	5	7
	n	151	152	153	153	149	149	150	154	152
	Min	1	2	1	2	1	2	2	2	50
	Max	87	101	73	87	83	65	87	124	1378
	Mean	25.79	28.86	23.67	31.33	24.13	23.71	24.61	44.31	495.62
	SD	19.25	20.13	15.23	21.32	20.39	14.91	15.03	27.76	282.90

Notes: N = 159 for all data. Sample size varies once outliers are removed. Mean and standard deviation indicates central tendency in the data, which may not be representative of any given case. Minimum and Maximum values indicate the range in the length of responses for each question.

The questions about what the universe is made of, evolution, and God were low performing questions with the lowest average word counts. The questions about life philosophy, happiness, religion, and Covid-19 were high-performing questions with the highest average word counts. While there is no set cut-off for high-performing and low-performing questions based on word counts, comparatively, some questions performed higher or lower than others.

Limitations

The first limitation of this study is the use of one coder for the qualitative analysis. Qualitative coding is often considered a subjective form of measurement related to quantitative approaches, which is amplified using only one coder. This limitation is a necessary constraint due to the nature of the study being a master's thesis. Future iterations of this study should attempt to use multiple coders to develop some form of interrater reliability.

The second limitation of the study is the use of non-exhaustive methods to assess the benefits of taking the PWQ. I use positively valanced single items to gauge a range of beliefs such as interest, belief clarity, meaningfulness, and enjoyment which may limit conclusions based on this data alone. However, the qualitative reflections were able to illuminate more aspects about the benefits of taking the PWQ. In the future, I would like to follow-up with participants after completing the PWQ using an interview format.

The third possible limitation is that students completed this experiment as part of a class assignment, which may have led students to answer more favorably about their attitudes towards taking the PWQ.

The fourth limitation is that there were no convergent worldview measures to compare responses in the PWQ to other aspects of worldview defined by existing measures. While this is

likely beyond the scope of this pilot study, in the future researchers could improve the function of the PWQ by including related worldview measures.

The fifth limitation is that the analysis in part 2 does not assess the "levels theory of worldview" discussed in part 1 at any given level. Rather, it blends individual and collective lenses to get a snapshot of how individuals construct their philosophical worldviews within a given group of students. This was more a function of the scope of the project than a limitation, due to a lack of empirical frameworks for studying worldview using qualitative data. Future research could improve upon this project by applying a different set of a priori coding structures to measure collective and individual worldview elements.

Overall Discussion

The qualitative thematic analysis of worldview statements provided many insights into students' "philosophical worldviews". Existential statements were the most closely related of the worldview statements to the items in the PWQ, as the emergent existential statements referred to beliefs about creation, the afterlife, the composition of the universe, evolution, and the nature of the mind. This design was intentional and successful at assessing philosophical worldview beliefs using the worldview statements framework provided by Koltko-Rivera (2004). Student's responses for each category shared many similar themes, but the nuances in responses were observable using qualitative analyses. For instance, while most students stated belief in God, there was a significant amount of variability in how they described and classified God using certain characteristics. Similarly, there were observable differences in the language students used to describe the same concepts. In response to the origin of evil question, some participants stated that the devil was the origin of evil, while others used the name Satan. Within different religious

traditions, titles of religious figures (e.g., Satan, devil, lucifer) often vary depending on the denomination of practice, thereby representing a fundamental difference in the linguistic aspect of worldview across groups (i.e., semiology; Johnson et al., 2011). This abstracted example illustrates one-way collective worldview differences may inform individual worldviews.

For the purposes of coding worldview statements, the questions about the truth, evolution, religion, and destiny were not utilized very often. The reason for the lack of codable statements was because these questions were more successful at eliciting responses describing the phenomena (i.e., religion, evolution, etc.), rather than evaluating them as things that exist, are good or bad, or desirable or undesirable. While the utility of the PWQ is not limited to the evaluation of worldview statements, it is worth noting that these questions were not as successful at prompting responses that were codable using the worldview statements framework. This suggests there is a discrepancy between the PWQ, and the a priori coding framework used. Koltko-Rivera (2004) suggested that existential, evaluative, and pre/proscriptive statements are windows into an individual's worldview. However, it is possible that there are other windows that may be present at a tacit level. For example, Streib & Keller's (2018) model of religious style development includes aspects of worldview such as "Locus of Authority" and "Symbolic Functioning" that allow coders to evaluate worldviews, even if many of the participants' beliefs remain tacit, or unspoken. Looking forward, researchers who look to employ the PWQ as a qualitative measure of worldview should explore coding frameworks that allow for both explicit and implicit worldview components.

To adapt the PWQ as a measure of worldviews in psychology, there needs to be significant modifications such as adding new questions, revising existing questions, and refining the methods of data collection and analysis. During the qualitative worldview analysis, I

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recorded observations about the qualities of each question's responses. Some of the questions lent themselves to dichotomous, and respectively, short-winded answers. While all of the questions had a similar minimum word count, some questions were more consistently brief and uninformative about an individual's worldview beliefs. Specifically, the questions about free will and the origin of good and evil often elicited ambiguous responses, evidenced by the use of the terms "there is free will to an extent", and "morality is subjective." This is also problematic as the questions did not elicit what they initially were intended to do, which was to identify beliefs about agency and responsibility, and moral evaluations, respectively.

The question of free will is one that warrants refining. Rather than prompting a yes or no answer, researchers may elicit more enriched free will beliefs by adding elements or changing the question to "What responsibility do we have toward our actions" (Voychehovski & Voychehovski, 2013). This question was initially asked as an additional probe for the free will question by Dr. Tom, but it may provide more empirical insight into the consequences of free will beliefs than "Is there Free Will?" Another question that warrants refining is the nature of the mind question. For many students, they didn't understand what it was asking. Also, based on the worldview statement codes, this question was only codable when students expressed statements about the relationship between the mind, body, and soul. Following this observation, a better, and more direct way of asking this question can be "What is the relationship between the mind, body, and soul?" This question is also very similar to one of Dr. Tom's probes for the nature of the mind question (Voychehovski & Voychehovski, 2013). It seems he was on the right track asking these series of questions, but the best question for the psychological measurement of philosophical worldviews may be different from the one's initially included in the PWQ.

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While asking the question "what is the universe made of" is helpful in identifying beliefs about the physical composition of the universe, but less informative of beliefs about immaterial agents (e.g., spirits, ghosts, etc.). Although this question was useful for evoking existential statements, it may not be as useful for studying worldviews psychologically, where the focus is on cognition, behaviors, and emotions. This critique may be also observed for many of the other questions, such as the origin of the universe, and "who or what is God." Therefore, the PWQ should strive to include additional questions that can further elicit evaluative and pre/proscriptive statements, which focus more on judgment and behavior. The word count descriptives provide evidence that the life philosophy, happiness, and Covid questions, on average, stimulated more detailed responses compared to the other questions. Notably, relating my qualitative observations to the quantitative data, pre/proscriptive statements were abundant within these questions, and they also included some evaluative statements, which were underrepresented in the PWQ.

When considering additional questions to add to the PWQ, I would look to add questions that aim attention at evaluative and pre/proscriptive beliefs. Such questions should focus on behaviors, goals, and relationships to be adopted for use in psychology. Based on the design of other qualitative worldview studies, the PWQ may seek to model questions in the faith development interview (FDI), such as "Are there any other relationships that are important to you?", and "what makes an action right?" (Streib & Keller, 2018). We might also model Kolko-Rivera's (2004) description of evaluative beliefs and ask, "what objects, experiences, or behaviors are good or bad?" Another notable adaptation of the PWQ would be to pilot the questionnaire as an interview to assess whether participants express more worldview statements through speech than they do in writing.

The next step to validate the PWQ as a measure of worldview is to test it in relation to other worldview measures. Since the PWQ is qualitative in nature, it is unable to statistically validate the questionnaire using traditional means. However, if paired with other measures of worldview like the Primals Inventory (Clifton et al., 2019) or the Humanistic and Normativistic Worldview Assessment (Nilsson, 2014b), researchers may be able to compare dimensions of worldview using both qualitative and quantitative measures of worldview statements. This connection should be pursued further to relate philosophical worldview statements to other psychological constructs such as dogmatism, values, and moral intuitions.

The PWQ was originally developed as a worldview exercise meant to provide a space for examining one's life. Based on students' attitudes towards taking the PWQ, there is additional evidence to support that for many this is an effective exercise to promote worldview reflection, and can be meaningful, self-assuring, and enjoyable. The PWQ presents questions that aren't typically asked in daily life, and according to students, resonate with aspects of our identity that often get neglected. The PWQ offers students a safe space to write out their thoughts, without the worry of being judged by others. Looking towards the future, the creators of the PWQ are looking to encourage the sharing of philosophical worldview beliefs and even provide a tool for doing so (i.e., philozophy.com). While for some students, they might be hesitant to share their responses with others due to fear of judgment, it is our hope to introduce worldview reflection to mainstream psychology and popular media to address issues such as political, racial, and religious discrimination. By encouraging inter-worldview dialogues, we hope to instill in others a greater sense of humanity, humility, and openness to the unknown.

In summary, future research may build on this thesis by (1) adding additional questions about behaviors, goals, and relationships to the PWQ, (2) including measures of worldview that

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indicate convergent and discriminant validity, (3) applying alternative coding methods to the PWQ, (4) pursuing opportunities for faith development, and (5) testing the benefits of worldview reflection in other populations.

Conclusion

The purpose of this thesis was two-fold. First, I attempted to elaborate on existing worldview theory to develop a "levels model" of worldview analysis to help clarify conflicting approaches in the study of worldview. The "levels model" is reflected in contemporary worldview research, and systematizes current approaches to worldview analysis in psychology, which uses mostly multidimensional models. Secondly, this thesis was an exploratory study to evaluate the PWQ as a measure of worldview. Qualitative evaluations of worldview have been advocated for by many but have yet to receive extensive empirical attention. This thesis takes a necessary first step in testing a new qualitative measure of worldview and provides directions for improving the measure in the future. Most students reported positive attitudes towards taking the PWQ, which suggests there may be additional benefits to worldview reflection worth exploring.

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APPENDIX A

IRB APPROVAL LETTER

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              Zach Swanson, Dr. Chris Silver

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             Dr. Susan Davidson, IRB Committee Chair

DATE: 9/24/2020

SUBJECT: IRB #20-102: Philosophical Worldview Project

Thank you for submitting your application for exemption to The University of Tennessee at Chattanooga Institutional Review Board. Your proposal was evaluated in light of the federal regulations that govern the protection of human subjects.

Specifically, 45 CFR 46.104(d) identifies studies that are exempt from IRB oversight. The UTC IRB Chairperson or his/her designee has determined that your proposed project falls within the category described in the following subsection of this policy:

46.104(d)(2)(i): Research only includes educational tests, surveys, interviews, public observation and recorded information cannot readily identify the subject (directly or indirectly/linked)

Even though your project is exempt from further IRB review, the research must be conducted according to the proposal submitted to the UTC IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an Application for Changes, Annual Review, or Project Termination/Completion form to the UTC IRB. Please be aware that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the UTC IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the UTC IRB as soon as possible. Once notified, we will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event.

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Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval.

For additional information, please consult our web page http://www.utc.edu/irb or email instrb@utc.edu.

Best wishes for a successful research project.

APPENDIX B

THE PHILOSOPHICAL WORLDVIEW QUESTIONNAIRE

The Philosophical Worldview Questionnaire

1. What is your life philosophy?

2. How did the universe begin?

3. What is the universe made of?

4. What is the Origin of Good?

5. What is the Origin of Evil?

6. Is there Free Will?

7. What is the nature of the mind?

8. How do you find happiness?

9. How do you find Truth?

10. What is the Meaning of Life?

11. What is the role of Evolution?

12. What is the role of Religion?

13. What happens after death?

14. Who or what is God?

15. What is going to happen to mankind?

16. What are your thoughts on the ongoing COVID-19 pandemic?

APPENDIX C

DEMOGRAPHICS QUESTIONNAIRE

Demographics Questionnaire

1. What best describes your gender?

    a. Male

    b. Female

    c. I'd rather not say

    d. Other

2. What is your age? _____

3. What is your race/ethnicity?

    a. American Indian or Alaska Native

    b. Native Hawaiian or Other Pacific Islander

    c. Asian

    d. White or Caucasian

    e. Hispanic, Latino/a, or Spanish origin

    f. Black or African American

    g. Two or more

    h. I'd rather not say

    i. Other

4. What statement below best identifies your beliefs?

    a. I am more religious than spiritual

    b. I am more spiritual than religious

c. I am equally religious and spiritual

d. I am neither religious nor spiritual

5. What best identifies your beliefs?

a. Atheism

b. Agnosticism

c. Buddhism

d. Christian

e. Hinduism

f. Islam

g. Jewish

h. Pagan

i. Unitarian

j. Other (not listed)

6. Which best describes your political identity?

a. Democrat or Liberal

b. Republican or Conservative

c. Libertarian

d. Independent

e. Other

APPENDIX D

ATTITUDES TOWARDS TAKING THE PWQ QUESTIONNAIRE

Attitudes towards taking the PWQ questionnaire

Note: Existential topics and beliefs are those that relate to existence and reality, which are represented by the questions asked in the PWQ. The PWQ is the name of the questionnaire you have just completed.

Instructions:

On a scale from 1-5, rate how much you agree with the following statements: (From 1 "Strongly Disagree" to 5 "Strongly Agree").

1. Taking the PWQ was helpful in clarifying my beliefs about existential topics.

2. Taking the PWQ was a meaningful experience for me.

3. Taking the PWQ gave me the opportunity to reflect on my personal beliefs.

4. Taking the PWQ increased my awareness of myself as one part of a larger whole, world or system.

5. Taking the PWQ increased my awareness of my beliefs about existential topics and/or questions.

6. Taking the PWQ was interesting to me.

7. I enjoyed taking the PWQ.

Please respond honestly and in your own words to the following open-ended questions.

1. What about taking the PWQ was meaningful for you?

2. In your opinion, what is the value of asking the types of questions present in the PWQ?

APPENDIX E

DR. TOM'S WORLDVIEW QUESTIONS

Dr. Tom's worldview questions

1. How did the universe begin? Where does it all come from? How did reality manifest?

2. What is the universe made of? The world is not a solid continent of facts sprinkled by a few lakes of uncertainties, but a vast ocean of uncertainties speckled by a few islands of calibrated and stabilized forms.

3. What is the Origin of Good? What is goodness to you? What creates more goodness in the world?

4. What is the Origin of Evil? What does evil mean to you? What creates more evil in the world?

5. Is there Free Will? How much of our choices are free outside of influence? What is freedom? What responsibility do we have towards our actions?

6. What is the nature of the mind? What makes you you? How are humans different than animals? How is the mind different than the body, the brain, and the soul?

7. How do you find happiness? What is happiness to you? How do you think others should find and create their own happiness?

8. How do you find Truth? Are there any universal Ethics? Or are values and truth a product of culture, context, and an individual's perception?

9. What is the Meaning of Life? What gives your life meaning? How do you think others should find meaning?

10. What is the role of Evolution? Why do things change? Is there a pattern or purpose to the changes in our environment, our species, and ourselves?

11. What happens after death? When we die, what parts of us live on? If any, and how? Is there an afterlife? If so, what is it like?

12. Who or what is God? What are the great forces that created us? What is "consciousness or spirit"? How is the universe's intelligence different than human intelligence?

13. What is going to happen to mankind? What is your prediction for our future? Imagine as far in the universe as you can go.

VITA

Zachary Thomas Swanson earned his Bachelor of Science in Psychology with minors in Leadership Studies and Philosophy and Religious Studies at Christopher Newport University in Newport News, VA. He will receive his Master of Science in Psychology: Psychological Sciences program at the University of Tennessee at Chattanooga where he worked in the Hood Lab and Cognitive Aging, Learning, and Memory (C.A.L.M) Lab. After he graduates with his Master of Science in Psychology, he will be attending Claremont Graduate University in Los Angeles to pursue a Doctorate in Positive Developmental Psychology. At CGU he will continue to develop his research on worldviews by studying purpose in life across different religious traditions. His research interests include moral and character development, human flourishing, intergroup relations, and faith and worldview.