Evolving education: a postformal-integral-planetary gaze at the evolution of consciousness and the educational imperatives

Jennifer M. Gidley
Southern Cross University

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Evolving Education:  
A Postformal-integral-planetary Gaze  
at the Evolution of Consciousness  
and the Educational Imperatives

Jennifer M Gidley  
BA, Dip Ed, MA Prelim (Psych), MA (Research), Grad Dip (Psych)

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School of Education  
Southern Cross University

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Declaration

I certify that this dissertation being submitted for the degree of Doctor of Philosophy is the result of my own research, except where otherwise acknowledged. This dissertation (or any part of the same) has not been submitted for a degree at any other institution.

Signed ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ...

Date ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ... ...
ACKNOWLEDGEMENTS

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I wish to honour some of the brightest human lights of last century: Rudolf Steiner, Jean Gebser and Sri Aurobindo for the gift of their inspirational integral evolutionary ideas; Michel Foucault for the depth of his scholarship; and Jacques Derrida and Giles Deleuze for their spiritual courage to write living philosophy. I am indebted to contemporaries Ken Wilber, Ervin László, Edgar Morin, Julia Kristeva, Basarab Nicolescu, Joe Kincheloe, Sohail Inayatullah, Hélène Cixous and many others who have been cited in my work for their influence on my ideas and/or writing.

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Last but not least, I wish to honour the “messenger/s” who at times, from invisible spaces, pour inspiration into my mind, reminiscent of what Cixous calls luminous torrents, as I strive to write with the integrality that Gebser named the Diaphainon: “that which shines through.”
This conceptual dissertation is both a study of, and an enactment of, the evolution of consciousness for the purpose of evolving education. The research draws attention to and situates itself within four complex, interlinked challenges: the current planetary crisis; the epistemological crisis underpinning it; the global youth problematique; and the inadequacy of the modernist, formal education model to meet these challenges. The research aims to identify and elucidate a new movement of consciousness through integrating and cohering literature on postformal, integral and planetary consciousness in conversation with literature from a variety of postformal pedagogies. It does so through what I refer to as postformal research, which I distinguish from formal research in numerous ways. The most obvious ways in which this dissertation differs from a standard social sciences dissertation is that it interweaves three different types of text throughout the dissertation: the five main chapters; the Prologue, Metalogue and Epilogue; and the reflective narratives—Prelude, Interludes and Coda. These three types of text are each visibly distinguished by a colour-coded facing sheet.

The five main chapters are academic publications, developed and published as part of the research process. The key research foci of the dissertation are addressed in each of these five chapters. Chapter One identifies features of the youth problematique and the broad cultural pedagogical context surrounding it, through a layered analysis of causal factors. Chapter Two provides a macrohistorical context for understanding the relationships among education, evolution of consciousness and culture. Chapter Three undertakes a broadening and deepening of the evolution of consciousness discourse through incorporating integral theoretic approaches including heterodox evolutionary narratives that offer alternative interpretations to classical Darwinism. In this chapter, I engage in an integral hermeneutic analysis of the evolutionary writings of Rudolf Steiner and Ken Wilber in the light of Jean Gebser’s structures of consciousness. I weave an epic but pluralistic narrative tapestry created from an interweaving of these three alternative views of evolution. Chapter Four draws out significant features of the new consciousness and distils new understandings of evolution in a form suitable for engaging the current education discourse. Chapter Five contributes significant new perspectives to educational philosophy. This final chapter offers an aesthetic-philosophic alternative to scientism for present and future cultural pedagogical practice by identifying four core values that are seeds for evolving education in line with emerging shifts in consciousness.

In addition to the five chapters, the Prologue introduces the research, provides an overview of the dissertation and a preliminary discussion of my substantive content, the evolution of consciousness, and my pragmatic interest in futures of cultural pedagogical practice. The Metalogue discusses my integral evolutionary philosophy, my transdisciplinary epistemology, my complex methodology of theoretic bricolage and my objective-subjective role as researcher. Finally the Epilogue summarises the significance and limitations of my research, evaluates it, and offers some suggestions for further research and closing reflections. It is proposed that a more conscious evolution of cultural pedagogical practice informed by postformal-integral-planetary consciousness may be more responsive to addressing the crises and complexities of the future.
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“Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?”
(T. S. Eliot, 1934, The Rock, lines 12-13)

“One of the greatest problems we face today is how to adjust our way of thinking to meet the challenge of an increasingly complex, rapidly changing, unpredictable world. We must rethink our way of organising knowledge.”
(Morin, 2001, p. 5)

I begin this dissertation with two quotes: one from an American-British poet (T. S. Eliot) and one from a French philosopher (Edgar Morin). Both speak of knowledge. Eliot bemoans the loss of wisdom while Morin hints at its re-awakening.

Perhaps it takes the eye of an artist, a poet, to perceive the loss of wisdom in the stripped-down, prosaic pragmatism of the Information Era. Yet it is a philosopher—a lover of wisdom—who actively thinks towards more complex ways of organising knowledge in the Planetary Era.

I use these quotes as symbolic gestures to mark what I perceive as a timely end to the marginalisation of poetry by philosophy since Plato over two thousand years ago, and the marginalisation of philosophy by science since Newton three hundred years ago.

My artistic-philosophic gesture of opening with these quotes is a deliberate reversal of the prosaic, information-centred trend observed by Eliot early last century and a welcome to the emergent, wisdom-oriented consciousness that Morin’s philosophy reveals.

As a conscious counter-weight to the scientism of the audit culture, encroaching globally on educational research today, I humbly intend that this dissertation be received both as a work of educational philosophy and as a work of art.
The Interludes: Introducing the Reflective Narratives

The Interludes are a significant thread in my endeavours to enact integrality in my research. They are short reflective narrative pieces, which provide a self-reflective adjunct to my conceptual writing, demonstrating the intimate relationship between the development of my ideas and events in my life-world, and how the tension between the two—the objective-subjective—has continued to inform and inspire my research. Evoking Nicolas Barbules concept of epistemological virtues, which involve both “intellectual and moral qualities” I enact both epistemological courage and epistemological humility in presenting this dissertation to my readers (Coryn, Schröter, & Scriven, 2005). At various points during this doctoral journey I encountered an aporia— a puzzle, a riddle, an impasse— that required a new perspective. I had to stop, step back and recontextualise— through more reading, dialogue or deeper reflection. Each time I came through an aporia, something new emerged in the quality of my work, my ideas, my writing. I have interspersed the documentation of this and other processes throughout my dissertation to help to make the deep, tacit-intuitive, personal knowledge component of my research as transparent as possible. As discussed in the Metalogue, intuition is one of my research processes. The personal journal of my research process underwent considerable pruning, shaping and organising to become these short reflective narratives.

Although this dissertation— as printed artefact— is necessarily linear, the research itself did not follow a linear, sequential process. There was an ongoing circling, around and through the different parts, as each section grew and informed the others. Frequently there were several sections emerging simultaneously. A challenge of researching the emergence of postformal-integral-planetary consciousness is that by its nature it is complex, non-linear, paradoxical and thus cannot be neatly categorised— as will be demonstrated in the Prologue. The content developed a life of its own, continually expanding, and interweaving between the sections. At times, chaos and complexity tried to consume me. At other times I felt overwhelmed by the scope of my undertaking. Gebser’s notion of concretion of time— which was one of the most difficult of his concepts to grasp, only began to make sense to me towards the end of the research, as I found that my own research process had become an enactment of his concretion of time. There was no strictly linear beginning or end, with chapters co-arising simultaneously.

My aim has been to arrange the final product— the dissertation as artefact— so that it juxtaposes my conceptual development of ideas, with my aesthetic judgement. As this research suggests, integral scholarly writing has the potential to become a new philosophic-scientific art form.

The Interludes are arranged so that one appears before each chapter, including the Metalogue and Epilogue, yet each contains my post-hoc reflections. From a hermeneutic perspective, they provide pre-understanding of the conceptual content of the subsequent chapters.

In addition, as an expression of my desire to foreground philosophy and aesthetics in an age of scientism, there is also a short Prelude, which opens the dissertation with a poetic-philosophic apéritif and a closing Coda, which offers a philosophic-poetic liqueur for the onward journey.
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1 Introduction: Research Focus

The profound transformation we are now witnessing has been emerging on a global scale over millennia and has matured to a tipping point and rate of acceleration that has radically altered and will continue to alter our human condition in every aspect. We must therefore expand our perspective and call forth unprecedented narrative powers to name, diagnose, and articulate this shift. (Gangadean, 2006b, p. 382)

This conceptual dissertation aims to draw attention to the significance of the notion of the evolution of consciousness for the futures of education. It doing so, it situates itself within four complex, critical and interlinked 21st century challenges. These challenges may be summarised as: 1) the planetary crisis (environmental, socio-cultural and politico-economic); 2) the epistemological crisis underpinning the planetary crisis, as reflected in calls for a global systemic shift in consciousness; 3) the youth problematique; and 4) the inadequacy of the modernist, formal education model to meet these challenges. In relation to the first two challenges, I identify three bodies of literature that contribute significantly to an increased understanding: the adult developmental psychology research on postformal reasoning; the integral evolution of consciousness discourse; and literature on planetary consciousness. I cohere them within the evolution of consciousness discourse, since they identify and/or enact a new emergence. In relation to the third and fourth challenges, there is a range of integral/holistic and critical/postmodern/postformal pedagogies, which identify these issues. I refer to these collectively as postformal pedagogies.

I note an under-appreciation in the dominant evolutionary discourse of both the educational imperatives of the evolution of consciousness and the potential role of education in furthering it. I also note an under-appreciation in educational literature of the research on emerging new forms of consciousness beyond the formal, modernist thinking that created the factory model of schooling. I propose that the disjuncture between these— inherently related—bodies of literature is a consequence of the conceptual fragmentation and socio-cultural fracturing that has arisen within the modernity project as a consequence of specialisation, and conceptual and ideological territorialism. The extent of the disjuncture is such that between— and even within— fields such as postformal psychology and integral studies there is limited dialogue.

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1 Philosopher Roland Benedikter uses the term global systemic shift as a way to cohere the complex interplay between the very different— but coalescing— roots and streams of change reflected in the current political, cultural, religious and economic symptoms (Benedikter, 2007).

2 See Preface to Chapter Three and also Appendix 1, for background research on the youth problematique.

3 Not all the evolution of consciousness literature identifies a new emergence.
The primary research tasks of this dissertation are:

1) to identify features of the youth problematique and the broad cultural pedagogical context surrounding it, through a layered analysis of causal factors (primary focus of Chapter One);
2) to provide a macrohistorical context for understanding the relationships among education, consciousness and culture (primary focus of Chapter Two);
3) to conceptually research the plurality of discourses on the evolution of consciousness, including a hermeneutic focus on heterodox evolutionary narratives that offer alternative interpretations to classical Darwinism (primary focus of Chapter Three);
4) to distil the new understandings of evolution in a form suitable for engaging the current education discourse (primary focus of Chapter Four); and
5) to contribute significant new perspectives to educational philosophy (primary focus of Chapter Five).

This dissertation is both a study of, and an enactment of, the evolution of consciousness as it creatively integrates and coheres literature on postformal, integral and planetary consciousness. The expanded form of the dissertation title is a seed-form of the research focus (Figure P1 below shows the interpenetration of concepts).

The dissertation is also an enactment of postformal pedagogy in that it departs from a standard, formal dissertation in several ways. Additional notable structural differences, which are not in themselves necessarily postformal, include: 1) it incorporates a number of academic publications, developed and published as part of the research process; 2) it includes three additional sections, Prologue, Metaphor and Epilogue in lieu of what might be included in a standard dissertation as Introduction, Theory/Methodology, and Conclusion; 3) it includes an interwoven reflective narrative as both a navigational aid and a recognition of my subjectivity as researcher (Prelude, Interludes and Coda).

These three different types of text are each visibly distinguished by a colour-coded facing sheet. The five main chapters, together with the four appendices, are introduced with cream-coloured sheets. The Prologue, Metaphor and Epilogue are introduced with yellow sheets. The reflective narratives (Prelude, Interludes and Coda) are entirely typed on gold sheets of paper.

The ways in which this dissertation differs from a standard, formal dissertation are further elaborated under Postformal Dissertation Structure (especially 2.2.1 and 2.2.4) and Dissertation Overview below.
We live in critical times—times of unprecedented human alteration of the biosphere to the extent that our planetary homeland\(^5\) may in the foreseeable future become increasingly inhospitable for human habitation. Several contemporary philosophers, scientists, futurists and ecologists, point to an epistemological crisis—or crisis of consciousness—at the heart of our planetary dilemma (Earley, 1997; Gangadean, 2006a; László, 2006; Miller, 1993; Montuori, 1999; Morin, 2001; Morin & Kern, 1999; Slaughter & Inayatullah, 2000; Swimme & Tucker, 2006; Wilber, 2001b). Researchers from a range of disciplines, such as education, cultural history, philosophy and physics (Cousins, 1999; Earley, 1997; Gangadean, 2006a; Hart, 2001a; Loye, 2004; R. Miller, 2000; F. Poletti, E., 2002; Read, 1954; Russell, 2000; Swimme & Tucker, 2006; Thompson, 1998) call on the evolution of consciousness as a notion offering potential ways through this epistemological crisis.

I locate my research, which substantively focuses on the evolution of consciousness, within this critical, transdisciplinary academic context. A unique contribution of my research is that I apply a futures-oriented lens to these issues more explicitly than many researchers. Inspired by the futures methodology of causal layered analysis\(^6\) (Inayatullah, 2004), I unpack the layers beneath the symptoms of the youth problematique, to uncover the systemic challenges of the factory model of education, the dominant discourses and worldviews that support these systems, to an even deeper layer underlying all of these. At the deepest layer is the collective metaphoric-narrative of who we are as humans, our origins, and how we believe we have evolved. Under the litany of our symptoms of distress, our systems and policies, and our discourses and worldviews, the Darwinian evolution narrative is one of the dominant metaphors of modernity. Re-framing this narrative may well assist us to clear the way for sustainable transformation. A broad scan of the evolution of consciousness literature demonstrates numerous disciplinary threads. Most, however, operate either overtly or tacitly from the assumptions of the dominant myth/narrative of classical Darwinian evolution theory, underpinned by scientific materialism. My research uncovers alternative evolutionary theories, many of which operate in isolation from each other, in contradiction to each other, and even in competition with each other. By focusing on alternative evolutionary theories underpinned at the deepest layer by postformal, integral, and planetary metaphoric-narratives, the other layers of worldviews/discourses, systems/policies, and the litany of surface symptoms, may be significantly and sustainably transformed.

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\(^5\) See Edgar Morin’s planetary manifesto Homeland Earth (Morin & Kern, 1999).

\(^6\) The causal layered analysis (CLA) is elaborated in detail in Chapter One.
I situate myself as researcher within the global systemic shift and dedicate my research to the joint effort currently underway among critical-scholar-activists to consciously shift the global epistemic paradigm from one of fear and fragmentation to one of hope and integration through transforming education (Gidley, 2005, 2007a). Although educational theorists from numerous perspectives point to the limitations of the modernist model of formal education, much of it is without reference to the evolution of consciousness discourse. As a result of disciplinary specialisation, much of the literature on the psychological and socio-cultural challenges of young people is psychological or sociological rather than pedagogical. My transdisciplinary youth futures research draws attention to the distress arising in young people as a psycho-socio-cultural response to the global problematique (Gidley, 2002a, 2005). I introduce the term youth problematique to refer to the increasing mental health problems, and growing sense of hopelessness, fear of the future and disempowerment among many young people (Dwyer & Wyn, 2001; Eckersley, 2002; Eckersley, Cahill, Wierenga, & Wyn, 2007; Gidley, 2001b, 2002a, 2004b; Gidley & Inayatullah, 2002; Giroux, 2003; Hicks, 1998; Inayatullah, 2002; Novaky, 2000; UN, 2000; Wright, 2002). These youth voices provide an additional peripheral lens to the critical academic voices, strengthening awareness of the need for a shift in consciousness. As a scholar-activist—or transformative intellectual—I focus on educational transformation as the pragmatic ground of action for my research.

My primary philosophical interest is to broaden and deepen the evolution discourse. An emergent theme in the integral evolution of consciousness literature is the notion that human consciousness is currently evolving in a unique way where for the first time it has reached a degree of self-awareness whereby we have the potential to consciously participate in the process. This research points to the emergence of a new structure, stage/s or movement of consciousness, primarily referred to as postformal, integral and/or planetary. Attempting to gain the most comprehensive perspective on the evolution of consciousness I focus on the integral theoretic evolutionary narratives of Rudolf Steiner and Ken Wilber (see Appendix 2 for background information). In the central core of the dissertation, I hermeneutically analyse their evolution of

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7 See Henry Giroux’s critical pedagogical approach to teacher as transformative intellectual (Giroux, 1992).
8 The notion of conscious evolution was already posited by German philosopher Schelling in the late 18th century (Gare, 2007; Royce, 1892).
9 Issues surrounding the debate over whether there is one—or several—stages beyond Piaget’s formal operations, is discussed in Chapter Three, Section 8. This is a matter primarily concerning individual psychological development and although there are parallels with cultural evolution, it is also important not to conflate the two domains.
consciousness writings in the light of Jean Gebser’s structures of consciousness. The three narratives are complex and comprehensive and have not previously been researched in substantial relation to each other within the Anglophone academy. The scale of my research underpins both its significance and its limitations. As a result of the hermeneutic analysis and synthesis of their works within a transdisciplinary academic context, I coin the term postformal-integral-planetary consciousness. This represents how I conceptualise the multifaceted potential of the emergent consciousness within my integral evolutionary philosophy.

From an epistemological perspective much of the evolution of consciousness research is disjunctive—as a function of disciplinary specialisation (Morin, 2001). To counter this fragmenting tendency my research takes a transdisciplinary epistemological approach (Nicolescu, 2002). Quantum physicist, Basarab Nicolescu—a leading European researcher on transdisciplinarity—has developed his approach as an epistemology for unifying scientific culture and the sacred. This research ethos resonates with my interests and my concept of integral evolutionary philosophy. He also explains, “transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond all discipline. Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge” (Nicolescu, 2002, p. 44).

Consistent with my epistemological approach, I identify my research role as bricoleur-theorist—one who “works between and within competing and overlapping perspectives and paradigms” (Norman Denzin & Lincoln, 2005, p. 6). The notion of bricolage has been developed as a postformal research methodology to enable the researcher to adapt methods intuitively and organically to the needs of the emerging research situation (Kincheloe, 2001, 2005; Kincheloe, Steinberg, & Hinchey, 1999). By comparing the above quotes from Nicolescu, and Denzin and Lincoln, it is evident that my transdisciplinary epistemology is consistent with my methodology of theoretical bricolage (see Table P1 below). Bricolage has also been used to describe the process of evolution—pointing to the biological metaphors of emergence and self-organisation (Bocchi & Ceruti, 2002).

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10 See Chapter Three, Section 1 for my rationale for emphasising the work of Steiner, Gebser and Wilber, and a hermeneutic contextualisation of them.
11 Benedikter has undertaken academic research in German on the philosophical relationship between Steiner and Wilber, but it is yet to be translated into English so I have not been able to access it.
12 The hyphenation of concepts is based on Morin’s notion of complex integration of concepts (Morin, 2005a, 2005b).
Table P1: A Layered Research Framing

<table>
<thead>
<tr>
<th>Type of Inquiry</th>
<th>Postformal Conceptual Research</th>
</tr>
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<tbody>
<tr>
<td>Substantive Conceptual Content</td>
<td>Evolution of Consciousness</td>
</tr>
<tr>
<td>Pragmatic Interest</td>
<td>Futures of Cultural Pedagogical Practice</td>
</tr>
<tr>
<td>Philosophical Interests</td>
<td>Integral Evolutionary Philosophy</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Transdisciplinarity</td>
</tr>
<tr>
<td>Methodology</td>
<td>Theoretical Bricolage</td>
</tr>
</tbody>
</table>

One of the tensions in my research has been that much of the evolution of consciousness material in Chapter Three may seem too esoteric, academic, or tangential, to be relevant to those concerned with the day-to-day realities of the classroom or the departmental budget. Thus the burden of the latter part of my dissertation is to adequately translate my integral evolutionary philosophy, my transdisciplinary epistemology, and my complex bricolage of methods so that they make sense to those responsible for both institutional education and the broader enculturation of children and young people.

In summary, my research draws attention to and situates itself within four complex, interlinked challenges: the current planetary crisis; the epistemological crisis underpinning it; the global youth problematic; and the inadequacy of the modernist, formal education model to meet these challenges. Secondly, the research undertakes a broadening and deepening of the evolution of consciousness discourse through incorporating integral theoretic approaches. The hermeneutic analysis of the writings of Steiner and Wilber through a Gebserian lens points to a new movement of consciousness emerging at the present time. Thirdly, the research draws out significant features of the new consciousness and incorporates them into an educational philosophic vision. It is proposed that a more conscious evolution of cultural pedagogical practice informed by postformal-integral-planetary consciousness may assist in more adequately addressing the crises and complexities of the future in addition to furthering evolution.

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13 This is an updated, slightly modified form of Table 1 in Chapter Three.
14 A specific example of this delicate pedagogical theorising is that I translate Steiner’s rather dense content through Wilber’s more accessible topology and I translate Wilber for Steiner educators looking for a new impulse for Steiner education in the 21st Century (see Chapter Four).
2. Type of Inquiry: Postformal Conceptual Research

2.1. Key Terms

This section begins the process of clarification of the meanings that I attribute to the key terms used in the title. The following is not intended to bring premature closure to the understanding of these terms, which will become clearer as the dissertation unfolds. The nature of my research also requires that the meaning of the key terms be understood as being in a complex interrelationship with each other. Figures P1 and P2a, P2b and P2c represent these interrelationships diagrammatically. In acknowledgement of philosopher of mind, David Chalmers’ reference to the “easy problem” and the “hard problem” in consciousness research, my dissertation has an apparently easy title: “Evolving Education” and an apparently hard title: “A Postformal-integral-planetary Gaze at the Evolution of Consciousness and the Educational Imperatives.” Paradoxically, like most postformal-integral-planetary consciousness research, the easy title is not as simple as it sounds. It needs to be understood as a distillation of the hard title, where every word is dense with meaning and significance and will now be elaborated.

2.1.1. A Note on the Composite Term Postformal-integral-planetary

Throughout this dissertation I develop a complex conjoined term, postformal-integral-planetary, to represent the breadth and depth of my notion of the new consciousness that is emerging. I use Edgar Morin’s complexity-based linguistic method of hyphenating three or more concepts together to demonstrate their interrelated meanings (Morin, 2001, 2005a). I invite the reader to remain open in their initial understanding of this complex conceptualisation until after having read the elaborated subsections—postformal, integral and planetary.

My decision to conjoin these concepts could be critiqued from several perspectives. From a Wilberian perspective there may be no perceived need to conjoin the terms postformal and planetary to integral15 in the belief that Wilber’s integral theoretic framework already incorporates both postformal reasoning and planetary perspectives (Wilber, 2001b, 2004). This perspective could be represented as in Figure P2b.

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15 It needs to be noted that Wilber’s integral theory is just one integral approach among many as will become evident (particularly in Chapter 3).
Figure P1: A Postformal-integral-planetary Gaze at the Evolution of Consciousness and the Educational Imperatives (Representing the subtitle as diagram)

Figure P2a: A Postformal Perspective on Integral and Planetary Discourses

Figure P2b: An Integral Perspective on Planetary and Postformal Discourses

Figure P2c: A Planetary Perspective on Postformal and Integral Discourses
However, it could also be argued from the perspective of some adult developmental psychologists that the concept of postformal also contains both integral and planetary perspectives, for example through Michael Commons’ hierarchical complexity model (M. L. Commons & Richards, 2002; M. L. Commons, Trudeau, Stein, Richards, & Krause, 1998). This perspective could be represented as in Figure P2a below. Finally, those theorists of the new consciousness who focus on the critical, planetary perspectives may consider that their narratives incorporate postformal reasoning and integral theory, for example Edgar Morin’s notion of the planetary era (Morin, 2001; Morin & Kern, 1999). This theoretic perspective may be represented as in Figure P2c below. These three major strands of research each have a stronger emphasis in a particular area. The planetary consciousness literature tends to emphasise the urgency of our planetary crisis; the integral literature—particularly Wilberian integral—tends to emphasise the epistemological crisis and how this can be transformed by integral consciousness; the postformal psychology literature tends to focus on empirical and analytic articulation of higher stages of reasoning. My philosophical interest is in thinking these threads together as facets of the one emerging consciousness movement and, in particular, to pull through the educational imperatives of this emergence. As Plato said: “Thinking begins when conflicting perceptions arise” (Plato’s Republic, VII, 523, cited in (McDermott, 2005, p. 8).

2.1.2. Postformal

Postformal is the most widely used psychological term to denote higher developmental stages beyond Piaget’s formal operations. Adult developmental psychologists have been researching postformal thinking for several decades, identifying up to four stages of postformal development. They identify numerous features of postformal reasoning—including complexity, contextualisation, creativity, dialectics, dialogue, holism, imagination, construct awareness, paradox, pluralism, reflexivity, spirituality, values and wisdom (Arlin, 1999; Campbell, 2006; Cartwright, 2001; M. Commons et al., 1990; M. L. Commons, Trudeau, Stein, Richards, & Krause, 1998; Cook-Greuter, 2000; Falcone, 2000; Kegan, 1994; Kohlberg, 1990; Kramer, 1983; Labouvie-Vief, 1990, 1992; Riegel, 1973; Sinnott, 1998, 2005; Yan & Arlin, 1995). Drawing on these aspects of postformal reasoning my research contributes to the theorising of postformal

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16 The terms spiritual or spirituality, are used in this research, unless otherwise specified, to reflect worldviews that acknowledge that there is more to existence than matter. This could be discussed at length but it is beyond the scope of this dissertation to do so. The use of spiritual is not intended to denote any particular theological or religious view.
research, which I introduce and discuss below under Postformal Dissertation Structure. Michael Commons has identified a hierarchical complexity of stages of postformal thinking, including systematic, metasystematic, paradigmatic and cross-paradigmatic reasoning (M. L. Commons & Richards, 2002; M. L. Commons, Trudeau, Stein, Richards, & Krause, 1998). It is beyond the scope of this research to further elaborate on Commons’ theory.

Several educational researchers also identify the terms post-formal and post-formality in relation to critical and postmodern approaches to education (Horn, 2001; Kincheloe & Steinberg, 1993; Kincheloe, Steinberg, & Hinche, 1999; Rose & Kincheloe, 2003). Kincheloe and Steinberg propose four key components of postformality: etymology (origins of knowledge, imagination, problem detecting); pattern (deep structures, metaphoric cognition, mind-ecosystem links); process (deconstruction, logic-emotion links, non-linear holism); and contextualisation (context, particular-general links, and power issues) (Kincheloe, Steinberg, & Hinche, 1999, p. 62-81) (see also Metalogue, Table M 2). Kincheloe also refers to post-formality as “the socio-cognitive expression of postmodernism” (Kincheloe & Steinberg, 1993, p. 309). These issues are discussed in more detail in the Chapter Three (Part 8, pp. 102-109). My approach to the term postformal, is not limited by the parameters of the developmental psychology or education uses (see also Hampson, 2007). My use of postformal is transdisciplinary (Gidley, 2001c) and includes a macrohistorical futures perspective (see especially Chapters Two and Three).

2.1.3 Integral

The genealogy of the term integral is somewhat contested among contemporary integral theorists and researchers. In the middle of last century cultural philosopher Jean Gebser (Gebser, 1949/1985) used the term integral to refer to a new, emergent, structure of consciousness. However, unknown to Gebser when he published his first edition of The Ever-Present Origin

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17 Postmodernism— a term to denote a critical or deconstructive philosophical perspective in relation to modernism (Keller & Daniell, 2002). While postmodernism is not always regarded as a new stage, structure or movement of consciousness, I note Hampson’s recent paper pointing to the construct awareness of Jacques Derrida (Hampson, 2007). I support the notion that much of French philosophical postmodernism or deconstruction could be regarded as an expression of aspects of the new consciousness.

18 A Proquest database search for the term postformal in the titles of theses and dissertations in the last ten years revealed only one Doctor of Philosophy (McBride, 1998), one Doctor of Education (Falcone, 2000), and one Master of Arts (Kindle, 2002). However, a closer scrutiny of the titles of education-oriented PhD dissertations for 2007 revealed an array of titles that may suggest a postformal and/or integral orientation. Titles included terms such as applied mythology, collaboration, conversation, critical reflections, dialogue, exposing, hermeneutic approach, meditations, navigating, narrative inquiry, phenomenological inquiry, production of Mode 2 knowledge, queering, questioning, understanding and transcending. Within a sample of 725 doctoral dissertations each of these terms was used only once.
Indian philosopher Sri Aurobindo had begun in 1914 to use the terms integral knowledge and integral consciousness, in a series of writings later published as *The Life Divine* (Aurobindo, 1914/2000). Sri Aurobindo refers to integral knowledge as “a Truth that is self-revealed to a spiritual endeavour” (Aurobindo, 1914/2000, p. 661). This is also aligned to Gebser’s use of integral: “Integral reality is the world’s transparency, a perceiving of the world as truth: a mutual perceiving and imparting of truth of the world and of man and all that transluces both” (Gebser, 1949/1985, p. 7). What has not yet been recognised in the integral literature, to my knowledge, is that even before Sri Aurobindo began writing about integral knowledge, Steiner was already using the term integral in a similar way. Steiner’s earliest use of integral, to my knowledge, is the following comment he made on integral evolution in a lecture in Paris on the 26th May, 1906.

> The grandeur of Darwinian thought is not disputed, but it does not explain the integral evolution of man... So it is with all purely physical explanations, which do not recognise the spiritual essence of man’s being. (Steiner, 1928/1978, para. 5) [Italics added]

Steiner also used the term integral in a way that foreshadowed Gebser’s use. Gebser (Gebser, 1949/1985) claimed that the integral structure of consciousness involves concretion of previous structures of consciousness, whereby “the various structures of consciousness that constitute him must have become transparent and conscious to him” (p. 99). Gebser also used the term integral simultaneity (p. 143) to express this. This echoes Steiner’s characterisation of “the stages on the way to higher powers of cognition ... [where one eventually reaches] a fundamental mood of soul determined by the simultaneous and integral experience of the foregoing stages” (Steiner, 1909/1963, § 10, para. 5). [Italics added]

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19 Although Sri Aurobindo previously wrote about evolution and yoga (Aurobindo, 1909), I have not been able to locate his use of the term integral yoga prior to 1927 (Aurobindo, 1997). Sri Aurobindo’s integral yoga or synthesis of yoga aimed at psycho-spiritual development through an integration of the three partial yogas: the yoga of knowledge (Jnana Yoga), the yoga of devotion (Bhakti Yoga) and the yoga of works (Karma Yoga). Note also that to open the chapter on Reality and the Integral Knowledge, Sri Aurobindo quotes the Mundaka Upanishad (III. 1. 5.) “This Self is to be won by the Truth and by an integral knowledge” (Aurobindo, 1914/2000, p. 661).

20 Steiner also philosophically used terms such as integration, synthesis and unity to express integrative concepts.

21 I have identified seventeen texts in which Steiner uses integral similarly to Sri Aurobindo, Gebser and integral theorists today. This matter will be the subject of further research.

22 A close scrutiny of the early 20th century writings of both Steiner and Sri Aurobindo points to the likelihood that the latter met and was influenced by Steiner during these seminal times. During the decade between 1902 and 1912 they both had some connection with the Theosophical Society in England before both writing critically about its operations, at approximately the same time. Further research is being undertaken for a later publication.
The term integral has been popularised over the last decade by Ken Wilber and to a lesser extent by Ervin László with their respective integral theories of everything (László, 2007; Wilber, 1997, 2000a). Much of the contemporary evolution of consciousness discourse that uses the term integral to point to an emergent, holistic/integrative and spiritually-aware consciousness—draws on the writings of Gebser and/or Sri Aurobindo, either directly, or indirectly through reference to Wilber’s integral theory (D. G. Anderson, 2006; Combs, 2002; Earley, 1997; Feuerstein, 1987; Montuori, Combs, & Richards, 2004; Murray, 2006; Neville, 2006; Roy, 2006; Swanson, 2002; Thompson, 1998; Wilber, 1997). An ecology of integrals, has been suggested including “six intertwined genealogical branches of integral: those aligned with Aurobindo, Gebser, Wilber, Gangadean, László and Steiner…” among which there are varying degrees of commonality and contestation” (Hampson, 2007, p. 121).

My integration of integrals in Chapter Three involves a deepening of integral evolutionary theory by honouring the significant yet undervalued theoretic components of participation/enactment and aesthetics/artistry via Steiner and Gebser as a complement to Wilber’s conceptual emphasis. In Chapter Five I introduce the notion of reverence as an underappreciated feature of postformal-integral consciousness, which Steiner regarded as fundamental to the healthy emergence of the new consciousness (Steiner, 1930/1983). The significance of reverence is also noted in some education literature (J. Miller, P., 2000; R. Miller, 2000; Read, 1943; Whitehead, 1916/1967). When brought into hermeneutic dialogue with each other, Steiner’s integral spiritual science, Gebser’s integral-aperspectival cultural phenomenology, and Wilber’s integral-AQAL theoretical framework, demonstrate significant convergences in addition to their unique particularities. These issues are discussed in the Chapter Three (Part 8). My particular interests in using the term integral are to foreground the concepts of inclusivity, holism, pluralism and reverence. In the Epilogue I provide a delicate theorisation of a

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23 The integral approaches I consider in this dissertation, including my own, need to be contextualised as post-positivist, in contrast to the early 20th century strivings of the Vienna Circle to create a unified science through logical positivism.

24 Hampson noted “the Steiner branch is via the conduit of Gidley” (Hampson, 2007, p. 121).

25 My privileging of the term integral over holistic, or integrative, is not intended to contribute to any “turf wars.” I seek to honour both the scholarship and spiritual depth given to the term integral last century by Gebser and Sri Aurobindo. By using the phrase “integration of integrals” I distinguish my stance from any one particular integral theory. My use of integrality also conceptually includes the notion of holistic, as used by holistic theorists who honour a developmental and evolutionary perspective.

26 In his discussion of the potential interdisciplinary relationship between anthropology and anthroposophy—also called spiritual science—Steiner refers to his spiritual science as a “systematic noetic investigation” (Steiner, 1970, p. 25).
layered integral theory, which demonstrates the interrelationships among several—somewhat rivalrous—integral theories.

2.1.4. Planetary

The use of the term planetary has been increasing within evolution of consciousness discourses. The semiotic pluralism of its contemporary usage provides a counterbalance to the more politico-economic term, globalisation. Many researchers who use the term planetary have been inspired by Teilhard de Chardin’s notion of the planetization of mankind (Teilhard de Chardin, 1959/2004) (see Chapter Three, Appendix B). The phrase planetary consciousness is emerging as an alternative to the terms postformal or integral to characterise the new consciousness, particularly in the light of our current planetary crisis (see Preface to Chapter Three). In addition to its popular use by environmental activists it is used in academic contexts by a range of philosophers, scientists, educators and sociologists (Earley, 1997; Gangadean, 2006a; Miller, 2006; Montuori, 1999; Morin & Kern, 1999; Swimme & Tucker, 2006). This critical use of planetary has been emphasised in the philosophical writings of Morin who refers to the present times as the Planetary Era, which he claims began around five hundred years ago (Morin, 2001, 2005a, 2005b; Morin & Kern, 1999). Several other contemporary writers have also been influenced by Morin’s concept of planetary (Bocchi & Ceruti, 2002; Ceruti & Pievani, 2005; De Siena, 2005; Montuori, 1999; Montuori; F. Poletti, 2005). Morin’s philosophy has significantly influenced my recent thinking and is evident particularly in Chapter Three, Appendix B. My use of planetary is multi-layered, foregrounding critical environmental (biosphere), transcultural (anthropo-socio-sphere), philosophical (noosphere) and spiritual interests (pneumatosphere). These complex concepts are discussed in the Metalogue, Table M1: A Hierarchical Cohering of Knowledge Spheres and Epistemologies, and Chapter Three, Appendix B.

2.1.5. Gaze

The term gaze fulfils something of the function of a verbal noun in my dissertation title. It reveals the type of activity I engage in and is in a dynamic conceptual relationship with the composite term postformal-integral-planetary. Its multidimensionality distinguishes it from terms such as study, analysis, examination and exploration, which were the most commonly used terms to describe the research activity in a primarily North American sample of doctoral
dissertations on education, completed in 2007.\textsuperscript{27} A handful of the 725 dissertations used terms that appear related to my term gaze.\textsuperscript{28}

Major uses of gaze in postmodern discourses are in reference to Michel Foucault’s writing (Daniels, 2002; Gallagher, 1999; Gallo, 2004; Kajangu, 2005; Reece Baylard, 2003). Other uses include the phenomenological and existential reflective gaze (Sartre, 1937/1960); and the Lacanian psychoanalytic gaze in literature and the arts (Jennings, 2001). The male gaze referred to in feminist literature tends to draw on Foucaultian and/or Lacanian theory (Magness-Eubank, 2001). The term gaze is also used in sociology (Hudson, 2001); critical pedagogy (Gallagher, 1999), and in contemplative\textsuperscript{29} and spiritual contexts.\textsuperscript{30}

My use of gaze respects its polysemous nature. Firstly, my multiperspectival gaze at the evolution of consciousness carries within it aesthetic and phenomenological/contemplative qualities. Two centuries ago Immanuel Kant identified the relationship between aesthetics and contemplation in his Critique of Aesthetic Judgement. Kant’s notion of aesthetic contemplation refers to the disinterested contemplation of an art connoisseur in contrast with a gaze that reflects the interest of sensual pleasure. A postmodern and Marxist/feminist critique of Kant’s aesthetic contemplation is that it reinforces cultural power (Peterson, 1998). My notion of aesthetic-contemplative gaze overcomes this critique by employing aesthetics to critically challenge the orthodox evolutionary narrative. My gaze also transcends disinterest through participatory\textsuperscript{31} engagement with the object of the gaze. This aligns with Michael Polanyi’s notion of contemplative gaze, which is “intensely ... participative in an experience that is ineffable and inexpressible. It unifies focal and subsidiary awareness into a divine whole by sinking self-set.

\textsuperscript{27} I undertook a brief quantitative analysis of the titles of the 725 doctoral dissertations published in the Proquest Dissertations and Theses Database for 2007 based on the search term education. While almost two-thirds of titles (62%) gave no indication of the type of research undertaken, the remainder (38%) used the following terms: study: 75 (10%), case study: 45 (6%), analysis: 40 (6%), examination: 23 (3%), exploration 17 (2%). More minor approaches, each representing approximately 1% or less of the total number of 2007 dissertations, included investigation: 11, comparison: 10, perspective: 10, evaluation: 7, assessment: 6, model: 5 and inquiry: 5. Terms that appeared in less than five titles have not been included here. Although Proquest claims that this database is “the most comprehensive collection of dissertations and theses in the world” most of the 725 dissertations were from North American Universities and it is unclear how representative this is of a more planetary situation.

\textsuperscript{28} These included two uses of the term look (e.g. “a cross-cultural look”), one use of envisioning, one use of portrait, one use of mosaic and the creative phrase “stepping through the looking-glass.”

\textsuperscript{29} I distinguish my use of contemplative gaze from that used in: 1) contemplative Christian literature, 2) the psychotherapy approach of French psychiatrist, Jean-Marc Mantet, 3) the perjorative sense where the contemplative gaze of a researcher is regarded as aloof and detached from the life-world of the research (Du Plessis & Gauhar, 2004), and 4) the simple notion of gazing at a painting or a sunset.

\textsuperscript{30} In oral spiritual teachings it has been said that the gaze of the spiritual teacher can facilitate direct transmission of spiritual teachings (Behram Ghista, April 28, 2007, personal communication).

\textsuperscript{31} The aesthetic and participatory qualities of my gaze are emphasised in Chapter Three.
standards of seeing into abeyance” (Baumgarten, 1994-95, p. 14). My integration of aesthetics and phenomenology through participatory contemplation also reflects my philosophical lineage via Steiner to the aesthetics of Schiller and the phenomenology of Goethean science—in which to gaze contemplatively at an object is at the heart of his delicate empiricism (Holdrege, 2005; Robbins, 2006). Steiner’s spiritual scientific epistemology was strongly influenced by both Goethe’s phenomenological way of seeing and Schiller’s spiritual aesthetic methodology. Steiner (1925/1928) used the term gaze in reference to both Goethe’s and Schiller’s ways of seeing as follows.

We wish to look at Goethe’s scientific thinking by that method for which Schiller provided the model. Goethe’s gaze is directed upon nature and upon life, and his way of looking at things in doing so will be the object (the content) of our discussion; Schiller’s gaze is directed upon Goethe’s spirit, and his way of looking at things in doing so will be the ideal for our method. (§ A, Part 2)

Secondly, my intention is to use the term gaze as a gesture of integration between Sartre’s reflective gaze, which emphasises the subject who is gazing, and Lacan’s psychoanalytic gaze, which emphasises the object of the gaze. My usage thus powerfully integrates subject and object in the paradoxical recognition that my subjective gaze— influenced as it is by postformal, integral and planetary discourses— is also influenced by the object of my gaze, the evolution of consciousness.

In summary, my theoretical contribution to the notion of gazing as a postformal research activity maximises it as a semiotically rich and deep portal for my aesthetic, participatory, contemplative approach. My research gaze elastically holds the multiplicity of the threads being researched within the unity of my mind’s eye. For a graphic representation of this intimate interpenetration of concepts revisit Figure P1.

2.1.6. Note on the Composite Term Postformal-integral-planetary Gaze

Psychologist Brent Robbins, has identified four qualities of Goethean science that resonate with Husserl’s phenomenology. Robbins claims that both approaches are participatory, morally-responsive, holistic and dynamic. Robbins’ analysis affirms my view that Goethe’s delicate empiricism is participatory.

In the sense that it flows from intimate engagement with the phenomena under study... not to step back from it and view it from a detached, intellectual perspective; it is to dwell
with it and deepen the phenomenon through what Goethe called the "exact sensorial imagination" (Robbins, 2006, p. 5 of 13).

Although Goethe’s process was developed in relation to research in the natural world, I find this description a suitable one to characterise my conceptual research. Furthermore, I propose that these four qualities of Husserl’s phenomenology and Goethe’s delicate empiricism are encapsulated in the first four key terms of my dissertation subtitle. Postformal represents the dynamic of development; integral represents the qualities of holism; planetary reflects the critical, morally-responsive quality; and gaze—in the sense of “intimate engagement with the phenomena under study”—is participatory.

2.1.7. Evolution of Consciousness

My use of the term evolution cannot be elaborated in detail here but will emerge throughout this dissertation, which draws from biological, philosophical, socio-cultural and spiritual discourses. A brief background is introduced below, followed by a more substantial review in Chapter Three, pp. 15-18. The notion of socio-cultural evolution—particularly as developed in social biology—has been philosophically contested since the abuses arising from 19th century socio-biological models—such as social Darwinism. Anthropological critiques include claims that cultural evolution models are ethnocentric; unilinear; too oriented towards technological materialism; privileging progress rather than preservation; and speculative rather than evidence based. These issues are primarily discussed in Chapter Three, Part 1. My use of evolution also sublates two other terms—emergence and involution—that are often seen to be in contradiction to it (see Chapter Three, pp. 17, 55 and 58). It is beyond the scope of this research to discuss these notions in detail. However, this is the subject of a further paper (Gidley, 2008). A range of disciplines and discourses that can inform evolution of consciousness are indicated in Chapter Three, Figure 1, p. 24.

By consciousness, I am referring to the type of complex consciousness that is expressed by human thinking as it develops through various expressions over time, both historico-culturally (phylogenesis) and within individual psycho-spiritual development (ontogenesis). It includes, but is not limited to, cognition. My use of the term consciousness is further elucidated throughout this dissertation in the light of postformal, integral and planetary perspectives. I draw primarily from adult developmental psychology, continental and eastern spiritual philosophies of mind, and complex eco-philosophies, which point beyond both mechanistic and biologised metaphors of
mind. The other major thread of consciousness research is the cognitive sciences literature, much of which is limited to neurobiological and computer-science metaphors. The latter is a vast area of research and it is beyond the scope of this research to elaborate. A branch of cognitive sciences, referred to as consciousness studies characterises consciousness in two ways. According to philosopher of mind, David Chalmers, there is firstly “simple perceptual consciousness,” including the more technical features of learning and memory, which he calls the easy problem (Chalmers, 1995, 1996). Secondly, there is “phenomenal consciousness or qualia,” which he calls the hard problem.

The impressive progress of the physical and cognitive sciences has not shed significant light on the question of how and why cognitive functioning is accompanied by conscious experience. The progress in understanding the mind has almost entirely centered on the explanation of behavior. This progress leaves the question of conscious experience untouched. (Chalmers, 1996, p. 25)

I propose that the hard problem of consciousness is inherently beyond the cybernetic and neurobiological metaphors of cognitive studies, and requires the input of developmental psychology, spiritual philosophies, the humanities and arts, and higher order metaphors. In the Metalogue I further develop the notion of higher order epistemologies, methods and metaphors for researching and articulating human consciousness (see Adaequatio and Table M 1). I contextualise my macrohistorical theoretic narrative on the evolution of consciousness in Chapter Two, and develop it in detail throughout Chapter Three. Background to the evolution of consciousness as my substantive content is further discussed below.

2.1.8. Educational Imperatives

The term education is often restricted in meaning to the type of formal institutional theory and practice that takes place in schools, colleges and universities. Foucault refers to the types of formal knowledge that are imparted in such settings as connaissance (Scheurich & McKenzie, 2005, p. 846). My use of the term education has a broader intent, encapsulating the various processes of enculturation of children and young people that occur across multiple sites, in particular through the mass media and the surrounding cultural milieu informed by a particular worldview. Foucault refers to this broader, more complex, cultural context in which knowledge arises as savoir (Scheurich & McKenzie, 2005, p. 846). Connaissace and savoir are two
significant, interrelated concepts in Foucault’s archaeological method. Although my pragmatic interest in this research is education, my approach to researching what is needed to transform it, travels by the non-linear and circuitous path of cultural context and underlying worldview, or savoir. Giroux, (1998), whose work is informed by Foucaultian theory, refers to education as “cultural pedagogical practice” which is a suitable characterisation of my approach to educational research and transformation (see Table P1).

The educational imperatives that I refer to arise from the four critical issues introduced at the outset: the current planetary crisis; the epistemological crisis underpinning it; the global youth problématique; and the inadequacy of the modernist, formal education model to meet these challenges. Chapter One introduces the psychosocial impact of these critical issues on young people, and undertakes a layered analysis, which digs beneath the litany of problems to the discourses, worldviews and myths underlying them. In Chapter Four I emphasise the educational imperatives arising from both the critical challenges and the new consciousness. In Chapter Five, I develop some theoretical and practical directions for evolving education in ways appropriate to the criticality of our times. Notably the use of the term imperatives gives a greater sense of urgency than a more commonplace term such as educational implications. It is also intended to echo the Kantian sense of the moral—or categorical—imperative, which has been utilised by philosopher/poet, Peter Abbs (Abbs, 1994) in his educational writing. Background to my pragmatic interest in education as cultural pedagogical practice is discussed below.

2.2. Postformal Dissertation Structure

As a context for discussing the particular structure and presentation mode of this dissertation, Table P2 provides an introductory comparison between formal and postformal research. The notion of postformal research is an emergent one. To date, most of the research that is in reference to the term postformal is the adult developmental psychology research discussed earlier (M. Commons et al., 1990; M. L. Commons & Richards, 2002; Kohlberg, 1990; Kramar, 1983; Labouvie-Vief, 1990, 1992; Riegel, 1973; Sinnott, 1994, 1998, 2005; Yan & Arlin, 1995). Although the content of this research is related to analysing, verifying and elaborating stages of postformal reasoning, much of this research is undertaken from within a

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32 Although much of Foucault’s work with these concepts was applied to the discipline and institution of psychiatry, the concepts savoir and connaissance are also applicable to the discipline and institution of education.
formal empirical paradigm.\textsuperscript{33} The educational use of post-formality takes a more complex, postmodern approach (Horn, 2001; K\textsuperscript{in}cheloe & Steinberg, 1993; K\textsuperscript{in}cheloe, Steinberg, & V\textsuperscript{ill}averde, 1999; V\textsuperscript{ill}averde & P\textsuperscript{inar}, 1999). K\textsuperscript{in}cheloe and colleagues have begun the process of applying post-formal thinking to educational research and practice, but they make little reference to the psychology research on postformal reasoning and vice versa. This lack of postformal theoretical coherence coupled with the lack of application of postformal reasoning in the literature has been highlighted in research which applies some features of postformal reasoning to integral theory (Hampson, 2007).

I have been unable to identify any research that attempts to systematically develop a coherent framework for applying postformal reasoning to research as such. I propose that postformal conceptual research is a new type of inquiry. My formulation of it, which is a theoretical movement in this direction, is one of the significant contributions of this dissertation. Table P2 is intended to be a broad orientation to some of the standard parameters and assumptions of formal research and an indication of how postformal research may depart from these assumptions. The components used to identify postformal research in Table P2 include features from both the adult developmental psychology research (M. Commons et al., 1990; M. L. Commons & Richards, 2002; Kohlberg, 1990; Kram\textsuperscript{er}, 1983; Labouvie-V\textsuperscript{ie}f, 1990, 1992; Riegel, 1973; Sinnott, 1994, 1998, 2005; Y\textsuperscript{an} & A\textsuperscript{rl}in, 1995), and the post-formal\textsuperscript{34} educational theorising (Horn, 2001; K\textsuperscript{in}cheloe & Steinberg, 1993; K\textsuperscript{in}cheloe, Steinberg, & V\textsuperscript{ill}averde, 1999; V\textsuperscript{ill}averde & P\textsuperscript{inar}, 1999). Many of my claims will be further elucidated throughout this research.

\textsuperscript{33} An example of language that exemplifies a formal empirical approach is demonstrated by Michael Commons, one of the leading researchers on postformal stage development: "The theory presented here and in other papers on the M\textsuperscript{o}del of Hierarchical Complexity (Commons et al., 1998) makes seven predictions... 1. There are exactly six stages from the beginning of schooling to adulthood in which we find participants performing. 2. Sequentiality of stage is perfect. 3. Absolutely no mixing of stage scores takes place" (M. L. Commons & Richards, 2002, p. 166).

\textsuperscript{34} Post-formal thinking in educational contexts (K\textsuperscript{in}cheloe & Steinberg, 1993, 1999; K\textsuperscript{in}cheloe, Steinberg, & H\textsuperscript{ine}chey, 1999) will be further elaborated in the Metalogue (Table M2), in terms of its theoretical relationship with bricolage as educational methodology (K\textsuperscript{in}cheloe, 2001, 2005; K\textsuperscript{in}cheloe & B\textsuperscript{erry}, 2004).
Table P2: Tentative Comparison between Formal and Postformal Research

<table>
<thead>
<tr>
<th>Formal Research</th>
<th>Postformal Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Atomistic, reductionist</td>
<td>Holonic, holographic, holistic</td>
</tr>
<tr>
<td>2. Simple mechanical structure</td>
<td>Complex organic structure</td>
</tr>
<tr>
<td>3. Straight line, sequential</td>
<td>Helix, progressive recapitulation</td>
</tr>
<tr>
<td>4. Instrumentalism</td>
<td>Multi-layered reflexivity</td>
</tr>
<tr>
<td>5. Formal logic: binary, dualistic, excluded middle</td>
<td>Postformal logics: dialectical, fuzzy, included middle, paradox</td>
</tr>
<tr>
<td>6. Disciplinary segregation, specialisation and territorialisation of knowledge</td>
<td>Transdisciplinary integration, pluralism and de-territorialisation of knowledge</td>
</tr>
<tr>
<td>7. Cognitive orientation, privileging of brain</td>
<td>Cognitive-affective-participatory, balancing brain, heart, limbs</td>
</tr>
<tr>
<td>8. Knowledge as static, objective content, information-based</td>
<td>Knowledge as process, subjective-objective capacity, wisdom-oriented</td>
</tr>
<tr>
<td>9. Values neutral, secular</td>
<td>Values oriented, spiritual</td>
</tr>
<tr>
<td>10. Language as objective tool, or pragmatic instrument of communication</td>
<td>Language as subjective-objective, imaginative, metaphoric medium</td>
</tr>
<tr>
<td>11. Methodological functionalism</td>
<td>Methodological pluralism</td>
</tr>
<tr>
<td>12. Analysis, data, results, conclusion</td>
<td>Interpretation, patterns, context, coherence</td>
</tr>
<tr>
<td>13. Argument, debate</td>
<td>Dialogue, understanding</td>
</tr>
<tr>
<td>14. Researcher outside (etic) the research, third-person language</td>
<td>Researcher outside(etic)/inside(emic) the research, third-person and first-person language</td>
</tr>
<tr>
<td>15. Universal, timeless</td>
<td>Particular, historical, contextual</td>
</tr>
</tbody>
</table>

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This chart was developed with input from Gary Hampson. It is not intended to be conclusive but rather to begin a transdisciplinary dialogue within the academy on the question “What might postformal research look like?”

These claims are quite consistent with assumptions and practices of conventional approaches to research from a transpersonal research methods perspective (Braud & Anderson, 1998, pp. 4-5).
The standard formal, PhD dissertation\textsuperscript{37} structure for most universities has been strongly influenced by the requirements of the scientific community for the presentation of formal, empirical research—including Doctoral research.\textsuperscript{38} This structure is unsuitable for the present research on at least two grounds. Firstly, my research is not located in the empirical paradigm. Secondly, my research, based on the following theoretic stance, is postformal rather than formal.

The empirical research methods of the positivist paradigm have been challenged for decades by social science and humanities researchers working from a post-positivist or interpretive paradigm (R. Anderson, 1998; Braud, 1998; Braud & Anderson, 1998; Clements, Ettling, Jenett, & Shields, 1998; Norman Denzin, 2005; Norman Denzin & Lincoln, 2005; Gough, 2002; Payne, Williams, & Chamberlain, 2004; Richardson, 1996) (see Metalogue for more elaboration). However, the rich diversity of post-positivist research methods has not easily translated into a rich diversity of acceptable dissertation structures.\textsuperscript{39} There appears to be a default expectation—particularly for social science dissertations—to mirror the formal linear structure that is appropriate for empirical research. It is proposed that postformal research would be more authentic if—in addition to using post-positivist methods—there was also more experimentation with postformal dissertation structures and modes of presentation. Education researcher Bernie Neville has suggested a move towards more integral academic writing by drawing on the research of Gebser and Robert Kegan (Neville, 2000).

This dissertation endeavours to enact coherence between the postformal content of the research and the structure and mode of presentation. As such, the dissertation diverges in a number of ways from what may be regarded as a standard, formal Doctor of Philosophy dissertation in the Social Sciences. I have used the postformal research features in Table P2 as a guide for this discussion. The first feature is elaborated in some detail, as it is a significant marker of the particularity of this dissertation. Most of the other features are briefly discussed with pointers to their subsequent elaboration.

\textsuperscript{37} I am using the term dissertation to refer to the product—usually in written form—by which doctoral candidates present their research. It is used for PhD research in the USA and has a more global application than thesis, which is commonly used in Australia and the UK. Hampson notes that the term thesis is literally more applicable for formal research based on argument (inferring possible antithesis), as in Table 2, Point 13 (Hampson, G. P., Personal communication, January 16, 2008).

\textsuperscript{38} Empirical research is generally reported in a linear form to include: Introduction, Literature Review, Methods, Data Analysis, Discussion and Conclusion.

\textsuperscript{39} This process has begun in the some areas of humanities (Willis & Smith, 2000) and transpersonal psychology (Braud & Anderson, 1998).
2.2.1. Holonic relationship between the whole dissertation and its parts

The most notable divergence between a standard, formal, social science dissertation and this dissertation is that the latter incorporates a number of published peer-reviewed academic articles. These articles/chapters carry the major conceptual content of the dissertation. A major feature of using publications in a dissertation is that each publication is required to be a stand-alone piece in a holonic relationship to the whole PhD. Each chapter needs to function effectively as a whole self-contained article in whichever journal or book it is published, yet also needs to function as part of the dissertation in relationship to all the other chapters.

My primary justification for publishing PhD chapters during my doctoral candidature is the critical nature of our planetary moment. As an already experienced professional psychologist, educator and futures researcher, I am only too aware of the urgent need for a planet-wide shift in consciousness if we are to meet the growing complexity of environmental, economic and sociopsychological challenges in a timely fashion (see preface to Chapter Three for more information). In the standard, formal PhD research process the candidate is likely to spend three to five years researching a topic of interest and then—only after the dissertation is examined and passed—begins to consider writing and publishing from the research, if at all. At the outset I felt that this represented an undue and unacceptable delay in my case. Consistent with the primary focus of my research—the evolution of consciousness and its educational imperatives—I decided to begin my PhD process by researching, writing and publishing on this theme as my ideas evolved. This has been both exhilarating and challenging, as the interwoven reflective narrative demonstrates. Challenges and limitations of this approach are discussed below.

Ironically, although a doctoral dissertation comprising mainly published papers is heterodox today, a precedent appears to have been set in the Anglophone academy almost 150 years ago by the very first earned Doctor of Philosophy degree granted in the USA. A brief genealogical survey indicates that the earned Doctor of Philosophy degree—originating in

While Chapters One to Four are already published, Chapter Five has been submitted and is in the review process.

"Southern Cross University permits, and indeed encourages, the incorporation of ‘publications’ into Higher Degree Research (HDR) theses... A HDR thesis may include only one publication, or the thesis may consist primarily of publications" (Baverstock, 2004). My research breaks new ground as the first social science thesis through SCU consisting mainly of publications.

Wilber (2000b) gives holon theory a central position in his integral theory noting: "Arthur Koestler coined the term holon to refer to that which, being a whole in one context, is simultaneously a part in another" (p. 26). Related concepts are holarchy, holography and holonomy. It is beyond the scope of this research to elaborate.

Genealogy is one of Foucault’s postmodern philosophical methods that influence my thinking. Kincheloe also refers to genealogy as a feature of his theory of post-formality (Kincheloe & Steinberg, 1993).
Germany in the early 19th century—was first introduced in the Anglophone academy at Yale University in 1861 (Rosenberg, 1962). Higher education researcher Rosenberg claims that the very first American PhD dissertation was based on a single peer-reviewed article of 24 pages in the scholarly journal, Bibliotheca Sacra. My dissertation also contains, as its centrepiece, a lengthy published article that is beyond the standard length of the average journal article (Chapter Three). It is notable that the journal that accepted this article, Integral Review: A Transdisciplinary and Transcultural Journal for New Thought, Research and Praxis, supports and encourages extended, postformal-integral, scholarly works. The hermeneutic method used for the central analysis also reflects a holonic relationship between the whole and its parts creating a “circle of contextual meaning” (see Chapter Three, p. 11).

2.2.2. Complex organic structure

The idea that organic processes are intrinsically more complex than mechanical processes is the basis of complexity theory (Morin, 2005b). The notion of complexity is identified in virtually all the relevant literature as a significant indicator of postformal reasoning. The complexity of interrelationships between the various components of my research resisted all attempts to be fitted into a mechanistic, linear structure. My intuition was to find the dynamic dialectic between the structure I had in mind and an organic process of emergence. A meta-reflection on the eventual product of my research reveals a similar shape to the process that a flowering plant goes through as it moves through its generational development. Each chapter includes the development of seed ideas that are introduced—often as very small but powerful components—in the previous chapter. As each seed idea grows into the major components of the next fully developed chapter new seeds begin to form, which gradually develop until they germinate sufficiently to flower in the subsequent chapter. For example in Chapter One, the notions of perennial philosophy and futures of culture and consciousness are seed ideas that develop in Chapter Two—further seeding the notions of evolution of consciousness and

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44 The original Doctor of Philosophy degree, originating in the 12th century in Europe, was granted to established scholars outside Theology, Medicine and Law as an honorary degree—not an earned degree. Yale University founded a Faculty of Philosophy and the Arts in 1847 following Medicine (1813), Theology (1822) and Law (1843) (Rosenberg, 1962, p. 382). Yale awarded the first Doctor of Philosophy degree in 1861 (see also next note).
45 "The reviews in Bibliotheca Sacra... at that time did not approach the length of the one by Scheyler [twenty-four pages]. But his detailed review-article appears to have been in a special category, very possibly because it fulfilled the dissertation requirement for the doctorate...the first in American scholarly history to bear the abbreviation "PH.D" (Rosenberg, 1962, p. 386).
46 This could be seen as a type of conceptual or noospheric morphogenesis (Richards, 1992).
macrohistory researched in depth in Chapter Three. Several new ideas are seeded in Chapter Three and taken up in the two subsequent educational chapters (emergence of new consciousness and seeds of a postformal, integral, planetary education). This organic emergence is demonstrated in Table P3. I elaborate on the intuitive and organic research processes in the Metalogue.

2.2.3. Helix, progressive recapitulation, complex recursion

As an extension of the holonic and organic features, the structure of this dissertation reflects a complex recursive process that I call progressive recapitulation. This is best articulated by Morin’s (2005a) concept involving the prefix RE, which I elaborate in Chapter Three, Appendix A. Complex recursion or progressive recapitulation is a fundamental feature of the hermeneutic circle— or as Hampson (2007) calls it— hermeneutic helix.47 In this type of process the knowledge imparted is not constructed in a sequential, step-wise manner. Rather, ideas are presented in a layered manner, which is consistent with the organic structure. As indicated in Table P3 a new idea is first introduced in a seed form, which hints at the meaning but doesn’t fully elaborate it. At a later stage when the seed idea is elaborated there is both recapitulation and progression to a deeper understanding, which then reflects back on the earlier section. This is also referred to as double- and triple-loop learning (Starr & Torbert, 2005) in which the earlier piece— if read again— is understood with greater insight. Thus there is a return and also progressive development.

My dissertation is consciously layered in this way. As the reader progresses through the dissertation they are encouraged to circle back and forth between sections, which throw light on each other. This is how hermeneutic interpretation increases understanding by weaving between the whole and its parts.

47 "A hermeneutic helix might perhaps be a better metaphor, as two conceptual dimensions are involved in the learning procedure: a returning to origin (represented by the circle of the helix— as viewed end-on) and an advancement (represented by the linear— if wavy— dimension of the helix, as viewed side-on)." (Hampson, 2007) (p. 116, Note 22).
### Table P3: Organically Emergent Dissertation Structure

<table>
<thead>
<tr>
<th>Major Themes of Chapter</th>
<th>Emergent Seeds for Subsequent Chapter/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter One</td>
<td></td>
</tr>
<tr>
<td>Y outh negativity about the future, Youth mental health issues, Spiritual vacuum in western materialist worldview.</td>
<td>Futures of culture and consciousness, Perennial philosophy, Steiner philosophy.</td>
</tr>
<tr>
<td>Chapter Two</td>
<td></td>
</tr>
<tr>
<td>Chapter Three</td>
<td></td>
</tr>
<tr>
<td>Evolution of consciousness Steiner, Wilber, Gebser, Macrohistorical narrative Neo-hermetic integration of microcosm/macrocosm.</td>
<td>Emergence of new consciousness, Parallels between Steiner and Wilber, Evolutionary significance of affect, aesthetics, participation, and language awareness.</td>
</tr>
<tr>
<td>Chapter Four</td>
<td></td>
</tr>
<tr>
<td>Chapter Five</td>
<td></td>
</tr>
</tbody>
</table>
2.2.4. Multi-layered reflexivity

Another unique feature of this dissertation is that it includes a reflective narrative that interweaves between the chapters and tracks the evolution of my ideas— the Interludes. This interwoven narrative journals relevant experiences that have inspired and informed the research, and reflects on my conceptual development throughout the research journey. The purpose of this reflective narrative is two-fold. The first is to assist the reader with navigation through the complexity of the research by tracking the conceptual development of the theoretical threads as they emerge. The second purpose is an enactment of a participatory aspect of integrality, through the engagement of first person participation in the research. This also links to sub-section 2.2.8: Knowledge as objective-subjective capacity. The notion of intertextual accompaniment of theoretical work with personal narrative is something of a poststructuralist manoeuvre (Bennington & Derrida, 1993; Derrida, 1998, 2001; Holmes, 1998; Kristeva, 1982, 1986). Morin has also privileged the writing— and publishing— of his personal journals as part of his philosophic journey and his embodied methods of inquiry (Montuori, n. d.). The academic rationale for the integration of conceptual writing with personal narrative/biography/journal is discussed in the Metalogue.

2.2.5. Postformal logics

Formal research relies on formal logic in which, if two concepts are contradictory, they cannot both be correct. This either/or notion incorporates what is referred to as the excluded middle. The formal academic argument or thesis involves establishing the correctness of a particular concept or theory— and often the incorrectness of contradictory theories. Formal, binary or dualistic logic underpins what I refer to as intellectual-mental-rational thinking, which developed in the first millennium BCE notably by Aristotle in Greece (see Chapter Three, Section 7, The Birth of Philosophy in Greece, p. 95). Postformal logics, however, operate in a way that two apparently contradictory concepts can both be correct from different perspectives, including different levels of thinking. These both/and logics operate in reference to the included middle. By embracing complex dialectical and paradoxical thinking the limitations of dualism

48 See also Prelude and Coda for a subjective-objective opening and closing reflection.
can be transcended. There are several sections in this research whereby dualistic concepts are transcended through dialectical thinking and paradoxic thinking (see particularly the final subsection of Chapter Two, Beyond Dualism to Inclusiveness, pp. 50-52; and of Chapter Three, Section 8, Integration of Dualisms, pp. 111-116). Dialectical and paradoxic thinking are both identified as significant features in the psychological literature on postformal reasoning (M. Commons et al., 1990; M. L. Commons & Richards, 2002; Cook-Greuter, 2000; Hampson, 2007; Kramer, 1983; Labouvie-Vief, 1992; Riegel, 1973; Sinnott, 1998). This logic of the included middle is also a key feature of Nicolescu’s transdisciplinarity.

2.2.6. Transdisciplinarity and de-territorialisation of knowledge

This research aims to transcend the limitations of disciplinary specialisation and segregation of knowledge into isolated information silos. The problems of disciplinary isolationism are seeded in both Chapter One and Chapter Two. In line with the postformal movement towards multi-, cross-, inter-, post-, and transdisciplinarity, this research engages a transdisciplinary epistemology inspired by the breadth and planetary perspective in Nicolescu’s approach (see Metalogue for elaboration). The aim of this approach is for integration, not specialisation. The issue of territorialisation in the evolution of consciousness discourse is discussed in the Metalogue, including how my research transcends these limitations by engaging in deterritorialization in several ways (Deleuze & Guattari, 1994).

2.2.7. Cognitive-affective-participatory balancing brain, heart, limbs

The terms cognitive, affective and conative are used in the psychological research on the development of wisdom, as a means of integrating the three major human faculties (Sternberg, 1998). I favour the term cognitive-affective-participatory as the term conative has little currency beyond psychology. One of the themes that is emphasised in Chapter Three is a notion of integral consciousness that involves an integration of the whole person—head/brain/cognition, heart/love/feelings and limbs/hands/action (see Chapter Three, Section 8, pp. 110-111). Indeed, a major rationale for the inclusion of Steiner’s and Gebser’s evolutionary narratives in a dialogue with Wilber’s is for the purpose of developing an integration of integral approaches, which

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49 Dialectical and paradoxic thinking are not new. They also arose prior to—or in parallel with—formal logic in Athenian Greece, in various forms such as Taoism, Zen Buddhism and in the works of Parmenides and Heraclitus (Gebser, 1949/1985).
brings the more aesthetic and participatory approaches of Steiner50 and Gebser into hermeneutic conversation with Wilber’s more cognitively-oriented narrative (see Chapter Three, Section 2, p. 13, and Section 9, p. 123).

2.2.8. Knowledge as subjective-objective capacity: wisdom-oriented

The obsession with knowledge as information has been heightened exponentially in the information age continuing the trend noted by T. S. Eliot in the opening quote to this dissertation (see Prelude). The postformal movement towards knowledge as wisdom represents a recursive reclaiming of wisdom in a post-information age51 (Arlin, 1999; Hart, 2001b; Labouvie-Vief, 1992; Montuori, 1998; Sternberg, 1990, 1998, 2001, 2005). Wisdom is also central to both Steiner’s and Wilber’s philosophies. My research focuses on bringing wisdom through in education (Gidley, 2001a) (see also Appendix 3). This idea is seeded in Chapter Four and elaborated in Chapter Five. The move beyond the notion of knowledge as objective content— independent of the subject— is manifested in this research particularly through the intertextual weaving between the reflective narrative and the conceptual journey of the main chapters. Benedikter identifies the emergence of a new subjective-objective lead paradigm in the late works of several postmodern philosophers. He views this as a viable future path between the global renaissance of religions and the secular-constructivistic postmodern rationality (Benedikter, 2005). Further discussion on the elimination of the subject in formal research and how this has been transcended in my research is discussed in the Metalogue sub-section: The Return of the Subject.

2.2.9. Values-oriented criticality

The values orientation of this research is demonstrated in a number of ways. By acknowledging the role of the subject in research, subjective values are immediately introduced. However, as the postmodern critique of science has informed us, tacit subjective values are always operating, including in so-called values-neutral, objective, science research. My research deepens the values orientation of research on the new consciousness. By hermeneutically integrating the critical focus of the planetary consciousness literature and the spiritual focus of the integral/holistic literature, the ostensibly more objective, empirical-analytic focus, of the

50 Steiner frequently used the terms head, heart and hands pedagogically, in relation to integrating the whole child. Similarly Sri Aurobindo’s integral philosophy refers to knowledge, love and action (Aurobindo, 1909).
51 As far as I know I am coining the term post-information age.
postformal research base is broadened. In this postformal-integral-planetary context new terms need to be introduced into the list of features of the new consciousness—terms such as: cosmopolitanism, criticality, ecological awareness, empathy, hope, presence and reverence.

My research specifically demonstrates its normative values through its critical and pragmatic engagement with youth mental health issues in Chapter One; the imperative to transform higher education as a foundation for transforming thinking and culture in Chapter Two; the emphasis on the planetary imperative to change our thinking to avert further environmental and socio-psychological crises in Chapter Three; and the imperative to align education theory and practice with emerging movements of consciousness in Chapters Four and Five. The way in which creatuity, criticality, futures orientation, postformality, postmodernity and values can be integrated, as reflected in my research, is expressed well in the following quote by critical, postformal, educational researchers.

To engage in critical postmodern research is to take part in a process of critical world making, guided by the shadowed outline of a dream of a world less conditioned by misery, suffering and the politics of deceit. It is, in short, a politics of hope, in an age of cynical reason. (Kincheloe & McLaren, 1994, p. 154)

2.2.10. Language as subjective-objective, imaginative, metaphor medium

Steiner and Gebser—and to a lesser extent Wilber—emphasise vitality, creativity and reflexive awareness of one’s language, as features of the new consciousness.\(^\text{52}\) Creativity and reflexivity are recognised as postformal by several researchers (Abbs, 1994, 2003; Hampson, 2007; K aufman & Baer, 2006; Kincheloe, Steinberg, & Villaverde, 1999; Montuori, 1997; Montuori, Combs, & Richards, 2004; Sinnott, 1998; Sternberg, 1999). They re-emerged in postmodern philosophy as part of the linguistic turn. Late 20th century French philosophers enact these features in their writings partly through the use of neologisms to express new concepts (Cixous, 1991; Deleuze, 1968/1994; Derrida, 2001; Kristeva, 1982; Morin, 2005a). This dissertation enacts creative, subjective-objective language awareness through extensive contextual footnoting and the reflective narrative. Adult developmental psychologist, Cook-Greuter (2000), uses the term construct-aware to characterise the reflexive feature of postformal language development. Hampson explores the relationships between Cook-Greuter’s construct-aware feature and Derrida’s language (Hampson, 2007) (see Chapter Three, Section 8, p. 118).

\(^\text{52}\) Steiner and Gebser also substantially enact these new language features as I have tried to do (see Chapter Three, Section 9, pp. 133-140).
I introduce the term language reflexivity, with similar meaning, in Chapter Five. Imagination plays a significant role in this research (see Metalogue and Chapter Five), and deep metaphor is central to the causal layered analysis (CLA) futures methodology utilised (see Chapter One).

2.2.11. Methodological Pluralism

Methodological pluralism emerged in the 1970s as a sociological response to the dominance of positivist scientific research methods (Marsh, 1998). Over time, as qualitative research methodologies in general have become more established, notions of methodological pluralism have also become more comprehensive and developed. Wilber has recently begun to use the term methodological pluralism (Wilber, 2006). This has arisen from his extension of Schumacher’s (Schumacher, 1977) four fields of knowledge (p. 62), which Wilber calls the four quadrants, into eight dimensions that he calls the eight native perspectives. From these Wilber points to eight methodologies, including: structuralism, phenomenology, hermeneutics, ethnomethodology, empiricism, autopoiesis, systems theory and social autopoiesis (Wilber, 2006). Several other postformal approaches honour methodological pluralism, including theoretic bricolage, which I utilize (Norman Denzin & Lincoln, 2005; Kincheloe, 2001, 2005; Kincheloe & Berry, 2004). These and other approaches are discussed in more detail in the Metalogue.

2.2.12. Interpretation, patterns, context and coherence

The broadening of research beyond the positivist paradigm to the interpretive paradigm carried with it a shift from quantitative—especially statistical—forms of analysis to interpretive—particularly contextual, hermeneutic—forms of analysis. Norman Denzin and Yvonna Lincoln (2005) have identified numerous research moments throughout the 20th century in North American research. I discuss how my approach is located within these research moments in the Metalogue. My research method of theoretic bricolage, foregrounding hermeneutics, seeks to cohere the complexity of multiple dimensions while allowing for multiple contingencies and remaining open to future emergence (see Chapter Three, Section 1, pp. 34-41). My extensive contextual use of footnotes increases the transparency of my interpretive meaning making as a means of providing coherence. My Epilogue provides a coherence of much of what has been explored throughout the dissertation.

53 The apparent, yet non-attributed, influence of Schumacher’s four fields of knowledge on Wilber’s four quadrants is discussed in Chapter Three (p. 44, footnote 96).
2.2.13. Dialogue and understanding

Where formal research presents a formal argument in support of a particular theory, perspective or finding, postformal research involves dialogue among a plurality of perspectives. A significant contribution to this postformal feature is the deep dialogue process developed by integral philosopher Ashok Gangadean (1998). In the introduction to Chapter Two I refer to the need for universities to enter into a dialogue of epistemologies (p. 30). My research develops this seed idea as a central focus in Chapter Three, through a hermeneutic dialogue among the unique yet convergent epistemological approaches of Steiner, Gebser and Wilber with the aim of increasing understanding. A significant postformal feature of my research is that I enact the transdisciplinarity of Nicolescu, regarding his claim: “Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge” (Nicolescu, 2002, p. 44) (see also Metalogue).

2.2.14. Researcher outside/inside the research, third-person and first-person language

The formal empirical tradition that academic writing must be in the third person has been gradually weakening, especially in the humanities. A counter position has developed through the strengthening of feminist writing, particularly since the narrative turn in interpretive research, whereby subjective first person narratives may conversely marginalise third person accounts (see Metalogue, The Return of the Subject). In my theoretic approach to postformal research, as reflected in my writing, I integrate third-person and first-person language depending on the context. This is an attempt to move towards an objective-subjective research approach. I discuss how I manage this process in the Metalogue: The Return of the Subject. The Interludes also provide a continuous thread of first-person reflection on the development of the conceptual content of the dissertation.

2.2.15. Particular, historical, contextual

Like the many other paradoxes it explores, this dissertation endeavours to weave between the dimension of the universal, timeless and the dimension of the particular, historical, contextual. My macrohistorical narrative (Chapter Three) provides a framing for an understanding of our particular moment in time. The supplementary philosophical discussion of time (Chapter Three, 54 See summary of Gangadean’s process at the Global Dialogue Institute. http://global-dialogue.com/sevenstages.htm

34
Appendix A deconstructs and reconstructs our taken for granted notions of time and situates them in both duration and timelessness. From a perspective of postformal logics the dimensions of the timeless and the particular are no longer mutually exclusive but rather to be held in mind simultaneously. This is one of the more complex concepts that I have tried to portray and can be best understood as unitas multiplex, as elaborated in the Epilogue which provides the culmination of my delicate theorising.

2.3. Dissertation Overview

I develop a layered research framing which endeavours to provide the best possible fit between the comprehensiveness, or completeness, of my research palette and internal consistency. Within a modernist, formal approach of disciplinary specialisation, the researcher focuses very closely on a small topic and the detail can be quite accurate—internally consistent but “incomplete.” On the other hand, the further a researcher broadens the scope of the research focus, the less accuracy is possible on every detail—greater completeness leading to less consistency\footnote{This dilemma has been represented in mathematics by Gödel’s first incompleteness theorem: the more breadth, or completeness, one attempts to focus on, the less consistency is possible (Hofstadter & Dennett, 1981). Hampson introduced me to this notion, but I am responsible for what may be an over-simplification of the theorem as expressed above.} (revisit Table P1 for a summary of my layered approach).

With the idea of dialogue\footnote{Dialogue: “a conversation between two or more people,” from O.Fr. dialogue, from L. dialogus, from Gk. Dialogos ... “converse,” from dia- “across” + legin “speak.” [The ] “mistaken belief that it can only mean “conversation between two persons” is from confusion of dia- and di-.” Suffix logue is from Gk. Logos: “word, speech, discourse.” \url{http://www.etymonline.com/index.php?search=dialogue&searchmode=none}} in mind, I replace the terms—introduction, theory and/or methodology and conclusion—as commonly used terms for chapter titles in formal dissertations—with the terms prologue, metatogue and epilogue.\footnote{See Epilogue section where the first meaning of hermeneutics is “to say” as a messenger of the Gods.} By doing so, I emphasise my striving for dialogic understanding, as the etymology of my terms relates primarily to the performing arts and thus the spoken word.\footnote{I refer again to T. S. Eliot’s (1934) poem The Rock, where he bemoans the “endless experiment” which brings “Knowledge of speech, but not of silence; Knowledge of words, and ignorance of the Word.”} I extend the performing arts metaphor into the reflective narrative with the terms prelude, interludes and coda. These terms highlight the speech behind the written word, the noumenal realm of ideas behind words,\footnote{Southern Cross University policy on PhD’s incorporating publications states: “It will be essential for a thesis consisting mainly of publications to include at the very least an Introduction setting out the issue to be addressed, and a Concluding Discussion which ties the various articles into one cohesive argument” (Baverstock, 2004). My dissertation exceeds these requirements with its Prologue, Metatogue, Epilogue and navigational reflective narrative.} the hermeneutic conversation that occurs between a reader and the text (Gadamer, 1986), and what I hope will be
an ongoing dialogue with those who read my text. The prologue\textsuperscript{60} of a play refers to “the speech beforehand” while the epilogue refers to the closing speech, usually of a play. The term metalogue\textsuperscript{61} has a different etymology. My use of metalogue reflects its polysemous etymology as my metalogue is placed towards the middle of my dissertation, is intended as a change of pace, and also is beyond the other chapters in that it contains the meta-theoretical discussion of my research. The actual term metalogue was popularised by Gregory Bateson (Bateson, 2000) to refer to a type of complex dialogue defined by one of his colleagues, as follows.

A metalogue is a conversation about some problematic subject. The conversation should be such that not only do the participants discuss the problem, but the structure of the conversation as a whole is also relevant to the same subject. (Ryan, 2001, p. 1 of 26)

This prologue introduces the research and elucidates the type of inquiry (postformal conceptual\textsuperscript{62} research); the substantive conceptual content (evolution of consciousness); and the pragmatic interests (futures of cultural pedagogical practice).

Chapter One is in reference to the youth problematique, specifically the psychosocial impact on young people of the Western materialist worldview. I develop conceptual links between the clinical psychology research on hopelessness as a feature of youth suicidality, and the youth futures research. I suggest that we may be creating “a culture of hopelessness by feeding negative future images to our children and young people via the media” (Gidley, 2005, p. 18). I enact a causal layered analysis to uncover the deep myths and narratives that young people are telling themselves about our culture. This analysis indicates that the young people “sense a spiritual vacuum in their society” and that the litany of psychological distress reflects for many “disenchantment with the world they are inheriting from their elders” (Gidley, 2005, p. 23). This chapter points to the need for re-storying the dominant materialist culture to re-integrate the wisdom of the perennial traditions.

Chapter Two demonstrates the fragmentation in higher education and the need for an epistemological shift towards more integrality. It takes up this challenge and provides a broad literature context for alternative worldviews/cosmologies. An overview of the macrohistory of culture and consciousness points to an emerging postformal, integral consciousness that is

\begin{thebibliography}{99}
61 The prefix Meta is from “Gk. meta (prep.) “in the midst of, among, with, after,” from PIE *me- “in the middle.” It is also used in the sense of “changing places with” or “transposing” and “higher, beyond.” http://www.etymonline.com/index.php?search=meta&searchmode=none
62 Conceptual research is a term used in social science research such as psychology, psychotherapy and psychoanalysis for research that is not empirical or clinical (Young, 1995).
\end{thebibliography}
creative, dialogic and paradoxical (Gidley, 2006). Possibilities are explored for integrating the wisdom of the perennial traditions with the postmodern movement beyond dogma and certainty to create diverse integral worldviews or cosmologies for collective futures. The role and purpose of university education is situated within this context noting the need for a renewal in line with the new thinking.

The Metalogue is in lieu of the theory/methodology chapters in a formal social science dissertation. It elucidates my philosophical interests (integral evolutionary philosophy), my epistemology (transdisciplinarity) and my methodology (theoretical bricolage).

Chapter Three is an extensive hermeneutic analysis of the evolutionary writings of Steiner and Wilber, in the light of Gebser’s structures of consciousness. It broadens the general evolution discourse by introducing theoretic narratives that offer alternative views to classical Darwinism. It deepens the integral evolutionary theory by honoring the significant yet undervalued theoretic components of participation/enactment and aesthetics/artistry via Steiner and Gebser, as a complement to Wilber. Chapter Three also includes two appendices that explore philosophical and theoretical implications of the emergence of postformal-integral-planetary consciousness for a reframing of modernist conceptions of time and space. A third appendix holds an aesthetic lens to the evolution of consciousness through examples from the genealogy of writing (Gidley, 2007b, Appendix C).

Chapter Four returns to the pragmatic ground of cultural pedagogical practice, carefully considering the implications of the new meanings and understanding arising from the previous chapter, in terms of what education is today and what it can become tomorrow. It distils hermeneutic fragments of psychological, cultural-historical and philosophical texts from the previous chapter, translates them into a form more suited to the education discourse, and begins to examine education in this light. In this chapter I also apply a Wilberian lens to Steiner education, seeding a vision of educational futures that potentially addresses the limitations of each approach (Gidley, 2007a).

Chapter Five builds on the previous more conceptual paper. It develops the theoretical relationships between the evolution of consciousness themes and emergent postformal educational discourses. Four core pedagogical values arise at the intersections between these discourses—love, life, wisdom and voice/language. This chapter provides a counter-balance to the current neo-fundamentalist emphasis on the science of education. It offers an aesthetic-

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63 My use of integral here incorporates the composite meaning of postformal-integral-planetary.
philosophic vision of futures of cultural pedagogical practice that could facilitate conscious evolution towards new ways of thinking, feeling and acting in our complex planetary context (Gidley, Submitted).

The Epilogue is in lieu of the conclusion in a formal dissertation and includes a summary of the research, its significance and limitations, an evaluation, inspiration for future research, and closing reflections.

3. Substantive Conceptual Content: Evolution of Consciousness

The significant problems we have cannot be solved at the same level of thinking with which we created them (Albert Einstein).\textsuperscript{64}

Many leading-edge thinkers today echo Einstein’s view of a century ago. Their core message is encapsulated in the following words of László (2006), which he prefaced with explicit reference to the above quote from Einstein.

Without renewing our culture and consciousness we will be unable to transform today’s dominant civilization and overcome the problems generated by its shortsighted mechanistic and manipulative thinking.

... The shift to a new civilization— depends on the evolution of our consciousness ... a precondition of our collective survival. (pp. 39, 77)

László, like many researchers from psychology, philosophy, physics and cultural history claim that the challenges of our times require that we consciously evolve our consciousness. The features of that new consciousness are beginning to be articulated through postformal, integral and planetary discourses which I am cohering as the broader evolution of consciousness discourse (see Chapter Three, Section 8). My awareness of our numerous critical planetary challenges (environmental, socio-cultural and political-economic) is a significant motivation for this research (see also Preface to Chapter Three, and Chapter Four).

The history and development of the evolution of consciousness discourse from its seeding by the German Idealists and Romantics two hundred years ago to its dominance by Darwinian evolutionary theory is discussed more fully in Chapter Three (pp. 16-18). A tension remains within the evolution of consciousness discourse between the dominance of biology and the small but significant counter-threads of philosophical and spiritual approaches that emerged in the first

\textsuperscript{64} Although this quote is well known, oft-cited, and always attributed to Einstein, I have not been able— in spite of numerous searches— to uncover its source.
half of the 20th century and continue to influence contemporary discourse (Aurobindo, 1914/2000; Bergson, 1911/1944; Gebser, 1970/2005; Lovejoy, 1936; Neumann, 1954/1995; Steiner, 1904/1959, 1926/1966; Teilhard de Chardin, 1959/2002, 1959/2004). Many contemporary evolutionary psychologists and anthropologists primarily base their research on the version of Darwinian evolutionary theory grounded in classical biology. I propose that this may not be the most adequate epistemology for researching the fullness of the evolution of human culture and consciousness. Classical Darwinian evolution theory is strongly contested from several other academic sources:

- Postformal biological approaches—such as self-organisation and emergentism—arising from chaos and complexity science (Braxton, 2006; Clayton, 2006; Deacon, 2003; Goodenough & Deacon, 2006; Jantsch, 1980; Russell, 2000; Swimme & Tucker, 2006; Thompson, 1991);
- Postformal integral approaches that propose a dialectic between biological evolution and spiritual involution (Aurobindo, 1914/2000; Combs, 2002; Davidson, 1992; Gebser, 1970/2005; Gidley, 2008; Hocks; Murph; Steiner, 1971; Wilber, 2001a);
- Postformal integrative approaches that work towards an integration of evolutionary science and theology/spirituality (P. Carr, H., 2005; Clayton, 2006, 2007; Conway Morris, 2007; Cousins, 1999; DeL ashmutt, 2005; Esbjörn-Hargens & Wilber, 2006; Rolston III, 1997, 2005; Scott, 2007; Stein, 2006);
- Postmodern philosophical evolution theories (Richards, 1992, 2002; Rolston III, 1997);
- Systems theory approaches to evolution (Bocchi & Ceruti, 2002; László, 2006; L oye, 1998, 2004);
- Theological and religious literature, which includes intelligent design (Boivin, 2001; Grace & Moreland, 2002; Moreland, 2001); theistic evolution (P. Carr, H., 2005; Del ashmutt, 2005; Shafer, 2002; Teilhard de Chardin, 1959/2002, 1959/2004) and natural theology (Conway Morris, 2007; Rolston III, 1997).


B. We have already witnessed the shadow of social Darwinism (see Chapter Three, pp. 16-17).

C. Proponents of the religious doctrine of creationism clearly also contest the Darwinian evolution theory. I do not enter the evolution versus creationism debate that still rages in schools in the USA. This is beyond the scope of my research, which builds on the well-established scientific and philosophical basis of evolutionary theory.
Based on philosophical notions of *adaequatio*, it may be more appropriate for the human science disciplines of psychology, the study of soul, and anthropology, the study of human beings, to extend themselves more fully to develop authentically human epistemologies rather than biologising their research. Notwithstanding that biological notions of human nature are an advance on mechanistic ones, the comprehensive study of complex human consciousness arguably cannot be fully understood with epistemologies developed for the geosphere or the biosphere.

A further point is that much of the evolutionary psychology, archaeology and anthropology literature is underpinned by the metaphysics of scientific materialism. The latter worldview is being increasingly challenged as postformal research on the relationship between science and spirituality intensifies. This discourse is rapidly growing and a reasonable proportion of it is beginning to address issues of evolution and human origins without falling into the extremes of physicalism or creationism (Braxton, 2006; Brun, 2005; P. Carr, H., 2005; Cousins, 1999; Elgin, 1993; Esbjörn-Hargens & Wilber, 2006; Feuerstein, 1987; Gangadean, 2006a, 2006b; Grof, 1988; Hefner, 1998; Huston, 2007; Kibliger, 2007; Lockley, 1999; Loye, 2004; Rolston III, 1997, 2005; Russell, 2002; Shafer, 2002; Stein, 2006; Swimme, 1992; Swimme & Tucker, 2006; Thompson, 1998; van Huyssteen, 2004; Wilber, 1998).

The conceptual breadth of Wilber’s integral evolutionary narrative has made a significant contribution to transcending both scientism and epistemological isolationism. However, his integral project undervalues Gebser’s actual text, and substantially omits the pioneering contribution of Steiner, who, as early as 1904 wrote extensively about the integral evolution of consciousness, including the imminent emergence of a new stage. These lacunae in the discourse have provided substantial motivation for my research.

Perhaps as the re-integration of science and spirit gains ground, evolutionary theorists may again be prepared to consider the pioneering, but marginalised, integral evolutionary philosophies of Steiner, Gebser, Sri Aurobindo and others. Steiner’s interest was in developing: “a deepening knowledge of the world mystery [that] might be found in a spiritualized form of Darwinism and Haeckelism viewed in the light of Goethe’s world-conception” (Steiner, 1925/1928, p. 293). In a similar vein, Sri Aurobindo noted:

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68 Developed by neo-Platonist, Plotinus (205-270 CE), *adaequatio* means “the understanding of the knower must be adequate to the thing to be known” (Schumacher, 1977, p. 39). This is discussed in more detail in the Metalogue (see Metalogue, Table 1).
We have given reason in past articles for supposing that there is a higher force than the logical reason... the great mass of our habitual conceptions are not only temporary, but imperfect and misleading... we must question all alike rigorously and impartially. The necessity of such a process... for all humanity has been recognized by leading European thinkers... It was the process by which Goethe helped to reinvigorate European thinking. (Aurobindo, 1997, pp. 26-42)

My research incorporates such spiritualised, postformal evolutionary perspectives. Through my transdisciplinary approach to the evolution of consciousness, I attempt to cohere a number of disparate discourses, many of which are operating in isolation from each other, in contradiction to each other, and even in competition with each other. This coherence may add strength to the diverse postformal educational movement that is calling for educational transformation.

Pioneering efforts were begun a century ago to shape pedagogy with an understanding of the evolution of consciousness, particularly by Steiner, Sri Aurobindo and Maria Montessori. A gaze at the early 20th century pioneering educational contributions of Steiner and Montessori in Europe, followed by Sri Aurobindo in India indicate an interesting convergence and philosophical coherence. A driving force underlying their educational approaches was a notion of the evolution of cosmos and consciousness that embraced spiritual as well as scientific notions of evolution. Steiner began in 1904 to write about the evolution of consciousness. By 1909 he was beginning to shape his pedagogical theories around this notion, and by 1919 had founded his first school (Steiner, 1904/1959, 1909/1965). In 1909, Sri Aurobindo began to write about evolution in relation to yoga and by 1914 began publishing his major treatise on the evolution of consciousness (Aurobindo, 1909, 1914/2000). Sri Aurobindo’s integral education initiative did not begin until 1943— via his spiritual collaborator in Pondicherry, India (The Mother, 1955). On the other hand Maria Montessori had already begun her first school in 1907, and published her first educational writings in 1916 (Montessori, 1916/1964). Her philosophical alignment with the spiritual evolutionary perspectives of Steiner and Aurobindo are noted by Ron Miller who cites her 1946 book, Education for a New World: "The world was not created for us to enjoy, but we are created in order to evolve the cosmos" (R. Miller, 2000, para. 1). Although these three pioneers apparently had no physical contact with each other, one could speculate that they were

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69 Although honouring a spiritual as well as a material dimension to existence, none of these approaches is attached to a particular religious doctrine.

70 See Chapter Three for further discussion of the genealogy of the notion of a new movement of consciousness.

71 It is possible Sri Aurobindo and Steiner met in the early 20th century (see Chapter Three, p. 107).
all tapping into an important Zeitgeist.\textsuperscript{72} Several contemporary educators have undertaken comparative studies (Coulter, 1991; Edwards, 2002; Gidley, 2007a; Marshak, 1997; Miller, 1990). Unfortunately these pioneering pedagogical efforts have been largely overpowered by the dominance of the industrial era education model.

3. Pragmatic Interest: Futures of Cultural Pedagogical Practice

Education as a cultural pedagogical practice takes place across multiple sites, which include not only schools and universities but also the mass media, popular culture, and other public spheres, and signals how within diverse contexts, education makes us both subjects of and subject to relations of power. (Giroux, 1998, p. xi)

My educational approach is theoretically aligned to Giroux’s cultural pedagogical practice in that it includes broader forms of enculturation across such sites as the mass media, in addition to school and university education. My educational theory builds on my previous research into youth and educational futures (Gidley, 2002a; Gidley, Bateman, & Smith, 2004; Gidley & Hampson, 2005) (see also Appendices 3 and 4). I critically discuss the impact on global youth culture of the failure of the Western culture project to adequately enculturate our young people with a sense of meaning in their world (see Appendix 1). A significant body of critical and futures educational literature associates this loss of meaning with the inadequacies of the modernist formal education model (Dwyer & Wyn, 2001; Eckersley, 1995; Eckersley, Wierenga, & Wyn, 2006; Giroux, 2001, 2003; Holden, 2002; Lemish, Drother, Liebes, Maigret, & Gitte, 1998; Milojevic, 2003; Slaughter, 2002; Wildman, Gidley, & Irwin, 1997). Additional educational literature points to the broader global issue of the export of this model to the rest of the world (Gidley, 2001a, 2001b; Jain, 2000; M. Jain & S. Jain, 2003; Jain, Miller, & Jain, 2001; S. Jain & M. Jain, 2003); and the hidden curriculum that growing numbers of children and young people, globally, imbibe from the mass media (Gatto, 1992; Gidley, 2002a; Giroux, 2001; Healy, 1998; Pearce, 1992; Steinberg & Kincheloe, 2004).

I propose in this dissertation that education— at least in much of the Anglophone\textsuperscript{73} world—is in a transition from formal to postformal, somewhat lagging behind other socio-

\textsuperscript{72} Zeitgeist is a German word meaning Time-Spirit, or spirit of the times. Schelling used the term in the late 18\textsuperscript{th} century to refer to "the basic mood or current of an era" (Gebser, 1996, p. 87).

\textsuperscript{73} I am not sufficiently informed to comment on the trends in European and other non-Anglo nations, except that in the so-called developing world, there is a strong political and economic movement to transplant the modernist, factory-model of schooling into these diverse cultures. There is also a postcolonial critique of this neo-colonialist agenda (Gidley, 2001a; Inayatullah, 2002; M. Jain & S. Jain, 2003; Jain, Miller, & Jain, 2001; Visser, 2000).
cultural shifts arising from postmodern impulses (see Table P4). This proposition is discussed in detail in Chapter Five.

Table P4: Socio-Cultural, Political and Educational Phases

<table>
<thead>
<tr>
<th></th>
<th>Prehistory to 18th Century</th>
<th>18th to 20th Century</th>
<th>20th to 21st Century</th>
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</thead>
<tbody>
<tr>
<td><strong>Socio-Cultural Phases</strong></td>
<td>Pre-modern</td>
<td>Modern</td>
<td>Post-modern</td>
</tr>
<tr>
<td><strong>Political Phases</strong></td>
<td>City-states</td>
<td>Nation-states</td>
<td>Global-planetary</td>
</tr>
<tr>
<td><strong>Education Phases</strong></td>
<td>Informal family/tribal enculturation, or elite tutoring</td>
<td>Formal schooling, mass education, factory-model</td>
<td>Pluralism of postformal pedagogies with integral, planetary sensibilities</td>
</tr>
</tbody>
</table>

This simple theoretical model is not intended to suggest that there has been a unilinear, or unidimensional, development of culture, politics, consciousness or education. The actual phenomena are more complex, multi-dimensional and recursive.

The last few decades saw a flourishing of educational approaches that point to the inadequacy of the modernist model of formal education. I refer to them collectively as postformal pedagogies. A preliminary scan of the literature indicates that they could be clustered under the following broad areas, while acknowledging that there are varying degrees of overlap and interpenetration between some of these clusters. This clustering is merely a first level of analysis to be used as data for the later more complex analysis where these approaches are explored in relation to the themes that arise in Chapter Three from the evolution of consciousness discourse. In Chapters Four and Five I engage in a complex, multiperspectival process of meta-clustering, shaping and cohering these diverse influences into a postformal-integral-planetary educational philosophy that could nurture evolving consciousness. The clustering is as follows:

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74 This table refers primarily to the situation in the so-called developed world. The situation is far more diverse and complex in traditional, and non Western-European-based cultures.

75 I am using the term postformal here as an overarching term to cover the variety of pedagogical approaches that critique the formal, factory model of schooling.
• Aesthetic and artistic education (Abbs, 2003; Broudy, 1987; Edwards, 2002; Eisner, 1985; Gidley, 1998; Read, 1943, 1954; Rose & Kincheloe, 2003);
• Complexity in education (Davis, 2004; Davis & Sumara, 2006; Kincheloe & Berry, 2004; Montuori, 2003; Morin, 2001; Sinnott, 2005);
• Environmental/ecological education (Fien, 1998, 2002; Jardine, 1998; Ornstein & Ehrlich, 1991; Orr, 1994);
• Futures education (Dator, 2002; Eisler, 2001; Fien, 1998; Gidley, Bateman, & Smith, 2004; Gidley & Hampson, 2005; Hicks, 2002; Francis Hutchinson, 1996; Milojevic, 2002, 2005; Slaughter, 2002; Smith, 2003);
• Imagination and creativity in education (Broudy, 1987; Egan, 1988, 1990; Eisner, 1985; Gidley, 2001c, 2004a; Frank Hutchinson, 1993; Kaufman & Baer, 2006; Montuori, 2003; Montuori, Combs, & Richards, 2004; Neville, 1989; Nielson, 2006; Nuyen, 1998; Sloan, 1992; Takaya, 2003, July);
• Integral education {Bronson, 2006 #1514; Esbjorn-Hargens, 2006 #663; Gunnlaugson, 2004 #1015; Subbiondo, 2005 #1054; Gidley, 2007 #1061; McDermott, 2005 #1103; Fisher, 2007 #1151; Ferrer, 2006 #1460; Yi Hong, 2005 #1505; Stack, 2006 #1644; Reams, 2007 #1650; Adams, 2006 #1593};
• Planetary/global education (Boulding, 1990; Gidley, 2001b; Goerner, 2000; Inayatullah & Gidley, 2000; Miller, 2006; Milojevic, 2003; Montuori, 2006; Morin, 2001; Visser, 2000);
• Postformality in education, including complexity (Horn, 2001; Kincheloe, Steinberg, & Hinchev, 1999; Montuori, 1997, 2003; Sinnott, 2005, n. d.);
• Spirituality in education (Bouma, 2006; Chater, 2006; de Souza, 2006; Gidley, 2007a; Glazer, 1994; Hart, 2000, 2006; Miller, 1999; Pridmore, 2004; Scott, 2000; Subbiondo, 2005; Woods, O’Neill, & Woods, 1997);
• Transformative education (Daniels, 2002; Ferrer, Romero, & Albareda, 2005; Hart, 2001a; Montuori, 1997; Reams, 2007);
• Wisdom in education (Arlin, 1999; Bassett, 2005; Gidley, 2001a; Hart, 2001a, 2001b; Henderson & Kesson, 2004; Sinnott, 2005; Sternberg, 2001)

Some of these approaches are based on earlier theories such as experiential education (Dewey, 1972), constructivism (Piaget, 1955) and critical pedagogy76 (Freire, 1970; Holt, 1970; Illich, 1975), as well as more spiritually oriented approaches. Most postformal educators seek to broaden education beyond the simple information-processing model based on a mechanistic view of the human being, to a more organic, holistic, multifaceted, embodied approach. Yet not all alternative educational approaches honour the spiritual dimension or the multi-layered nature of the developing child, as part of a consciously evolving human species as reflected in my research.

The diversity of postformal pedagogies has led to the emergence of pockets of educational theory, much of it arising from educational practice. These can be partially cohered from the perspectives of postformal, integral or planetary standpoints. The integral standpoint—when broadly interpreted to include holistic—is a stronger thread, so I briefly discuss the other two first. Few educational theorists actually use the term postformal education (Horn, 2001; Kincheloe & Steinberg, 1993; Kincheloe, Steinberg, & Hinchey, 1999; Villaverde & Pinar, 1999). Postformal thinking in education is also beginning to be addressed by developmental psychologists (Sinnott, n. d.; Sternberg, 2001). However, if the term postformal is interpreted more broadly to include complexity, creativity, imagination, spirituality and wisdom then the picture broadens. Likewise the term planetary education is not common, but its sensibility infuses the work of several contemporary educators (Gidley, 2007a; Goerner, 2000; Laszlo, 2000; Montuori, 1999; Morin, 2001; Sloan, 1992). This notion can also be broadened to include those educators whose focus is the environmental ecology of the planet (Fien, 1998, 2002; Hicks, 1995; Jardine, 1998; Ornstein & Ehrlich, 1991); or the social ecology of the planet, including the

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76 The notions of homeschooling, unschooling, and deschooling (Illich, 1975) also arose in the 1970s from the critique of industrial era education. In 1977, critical educator John Holt began the first periodical on homeschooling: Growing without Schooling (Holt, 1995). It is beyond the scope of this research to elaborate. Arguably, this phenomenon bears some resemblance to the informal methods of education prior to the invention of mass schooling.
globalism, postcolonialism, multiculturalism and multilingualism77 discourses (Boulding, 1990; Dighe, 2000; Gangadean, 2006a; Gidley, 2004b; Miller, 1993; Milojevic, 2002; Mische, 1986; Yihong, 2005).

Much of what is referred to today as integral education has arisen from the application of Sri Aurobindo’s integral yoga philosophy to pedagogy.78 Several contemporary educators have adopted key aspects of this approach in the USA, most notably the California Institute of Integral Studies (CIIS) (McDermott, 2005; Montuori, 2006; Subbiondo, 2005). Although Wilber is apparently keen to see an integral education theory develop, based on his AQAL framework, this project is as yet in its infancy.79 His integral framework has primarily been applied in the higher education80 sector (Esbjörn-Hargens, 2006; Gunnlaugson, 2004). For an application of Wilber’s AQAL framework to Steiner education see Appendix 3. For an application of aspects of Wilber’s AQAL framework to futures education see Appendix 4.

A recent special issue81 on the application of Wilber’s theory to integral education primarily focused on senior school, college or graduate education (Crittendon, 2007; Esbjörn-Hargens, 2007; Feldman, 2007; Fischler, 2007; Reams, 2007; Zeitler, 2007). Several of these articles were formulaic, uncritical, reflected limited academic contextualisation of Wilber’s theory, and made little or no reference to the diverse related pedagogical literature (Crittendon, 2007; Feldman, 2007; Fischler, 2007; Zeitler, 2007). While the AQAL map could potentially provide an important guide for integral education, the latter could potentially be enriched if proponents paid more attention to related pedagogical literature.

If the term integral education is more broadly interpreted—rather than limited by an AQAL formulaic approach—it can encompass other integrative and integrally aware approaches such as Steiner, Emerson, Owen Barfield and others (McDermott, 2005; Montuori, 2006; Scott, 2000; Subbiondo, 2005; Zajonc, 2005). A double special issue of the journal ReVision in 2005 and 2006, was suggestive of attempts to broaden the notion of integral education beyond a single genealogical thread (Bronson & Gangadean, 2006; Esbjörn-Hargens, 2006; Ferrer, Romero, &...
A more embracing interpretation of integral education would include several educational theorists who may be broadly classified as holistic, but whose theoreic contributions to a postformal-integral-planetary pedagogy are significantly more comprehensive than some of the applications of the A QAL formula discussed above (Egan, 1997; Forbes, 2003; Hart, 2001a, 2006; Kessler, 2000; J. Miller, P., 2000; Miller, 2006; Neville, 2001, 2006; Palmer, 1998; Sloan, 1983 #933; Sloan, 1992; Thompson, 2001). These holistic educators reflect postmodern and critical perspectives while also honouring the individual developmental, spiritual and socio-cultural evolutionary needs of children. Kieran Egan’s developmental model for imaginative education (somatic, mythic, romantic, philosophic and ironic) has been linked with both Gebser’s structures of consciousness and Robert Kegan’s orders of consciousness (Neville, 2001). Ron Miller has contributed important insights for theorising postformal, integral/holistic education, while being careful not to put forward a “set curriculum” that could run the risk of being fundamentalised as some have done with Steiner’s and Montessori’s writings (Miller, 1990, 1997, 1999; R. Miller, 2000; Miller, 2005, 2006, 1993). Tobin Hart has developed an elegant theoretical model designed to align education to the evolution of consciousness. His model of learning goes through six successive stages from: “information gathering to learning as knowledge building... [then] to learning that involves, successively, intelligence, understanding, wisdom and finally transformation” (Hart, 2006, p. 104).

A major challenge in developing an educational philosophy that embraces postformal-integral-planetary consciousness is to cohere the diversity between the postformal educational approaches. It is worth noting that ideological rivalries exist between— and even within— some of these philosophical approaches. Some critical pedagogical theorists consider postmodern, and particularly poststructuralist, pedagogies to be too affected by what they call ludic postmodernism, with too little engagement with praxis and historical materialism (Eryaman, 2006; Mclaren & Farahmandpur, 2003). Some integral educators claim that holistic education is insufficiently integral to address the multiple dimensions that need to be addressed (Esbjörn-Hargens, 2006). Even within integral educational approaches there is contestation about degrees of cognicentrism versus participatory engagement (Ferrer, Romero, & Albareda, 2006).
There are also various attempts to integrate or cohere some of these divergences by building bridges between aesthetic, critical, postmodern and postformal (Kincheloe & Steinberg, 1993; Rose & Kincheloe, 2003); between and within holistic and integral (Gidley, 2007a; R. Miller, 2000; Miller, 2005; Stack, 2006); between postformal complex reasoning, ecology and creativity (Montuori, 1997, 2003; Morin, 2001); and in terms of the philosophies underlying some of the dissonance between integral and postmodern (Hampson, 2007). I propose that further philosophical and theoretical coherence could facilitate more extensive sustainable educational transformation. In the absence of coherence, the current piece-meal and ad hoc situation may even inadvertently support the swing back to neo-conservatism (Coryn, Schröter, & Scriven, 2005; Norman Denzin, 2005; Giroux, 2003; McLure, 2006b). As Giroux (1992) stated fifteen years ago, we need to "educate students to work collectively to make 'despair unconvincing and hope practical' by refusing the role of the disconnected expert, technician, or careerist and adopting the practice of the engaged and transformative intellectual" (p. 105). I wonder if this can be achieved unless as educators, philosophers, futurists, scientist, artists and integral theorists, we can find the living concepts and creative language to dissolve unnecessary boundaries among us.

5. Limitations and Significance

5.1 Challenges and Limitations

A number of unforeseen challenges arose as a consequence of incorporating publications in the dissertation. These include:

- A degree of repetition between chapters is unavoidable because key concepts and literature need to be introduced anew to each publication readership. The postmodern notion of building up understanding through difference and repetition provides some support (Deleuze, 1968/1994).
- There is a dispersal throughout the chapters of what in formal research would be the literature review.
- There are slight variations in style and voice between chapters as the writing has been targeted for particular audiences, and has had to meet diverse editorial requirements. This quality of "tailoring interactions to the recipient" is actually a feature of the construct-aware stage of postformal reasoning (Cook-Greuter, 2000).
• The need for additional navigational and structural aids to cohering the dissertation, as provided by the Prologue, Metologue, Epilogue and the intertextual reflective narratives (Prelude, Interludes, and Coda).

• References are incorporated into each individual chapter, including the Prologue, Metologue and Epilogue rather than listed at the end as in formal dissertations. This adds considerable length to the dissertation because of duplication of some references in the almost eighty pages of references dispersed throughout.

• There are several unforeseen technical challenges, such as occasional typographical errors that slipped through the publication editing process and cannot now be changed; complex pagination systems and numbering for tables and figures.

• There are two types of pagination: the already published articles have existing pagination and where I have cross-referenced them I refer to the publication pagination; all other pages are numbered sequentially (bottom-centre) as in a standard dissertation with an explanatory note as to which numbers are skipped for published chapters.

• To assist with identifying tables and figures, I have identified them in the Prologue with a P, in the Metologue with an M, and in the Epilogue with an E, prior to the table number.

Several other limitations of the dissertation are identified. Firstly, this is a vast area of research and it is impossible within the size and time constraints of a doctoral dissertation to incorporate all the possible threads that could potentially have been included. Secondly, there are language issues. Both Steiner's and Gebser's work—and also that of several others whose work I include did not write their original work in English creating inestimable translation issues. Thirdly, there are translation issues from one discourse (e.g., evolution of consciousness) to another (e.g., education). A further elaboration of limitations is provided in the Epilogue.

5.2. Significance

My research makes several significant contributions to new knowledge. These contributions are discussed in detail in the Epilogue so will be only be briefly indicated here.

A unique contribution of my research is that I apply a futures-oriented lens to these issues more explicitly than many researchers. I initiate the theoretical development of postformal
conceptual research as a new type of inquiry, which is one of the significant contributions of this dissertation. My research broadens the evolution discourse by introducing integral evolutionary theories using a transdisciplinary epistemology to work between, across and beyond diverse disciplines. I enact a deepening of integral evolutionary theory by honoring the significant yet undervalued theoric components of participation/enactment and aesthetics/artistry via Steiner and Gebser, as a complement to Wilber.

In the area of futures of education, this dissertation makes a major contribution to the cohering of the diversity of postformal pedagogical approaches through examining them in the light of the evolution of consciousness discourse. Finally, I develop an aesthetic-philosophic educational vision that integrates the rich complexity of postformal educational diversity without diminishing the emergent flourishing of the postformal-integral-planetary era.

References


Sinnott, J. D. (n. d.). Teaching as Nourishment for Complex Thought: Approaches for Classroom and Practice Built on Postformal Theory and the Creation of Community Towson University, Psychology Department.


Interlude One: Conceptual Influences on my Educational Philosophy

My educational philosophy as it emerges later in this research needs to be contextualised in earlier conceptual influences. In the 1970s, as a young psychologist educator, I was influenced by the postmodern (Nietzsche, Foucault), existentialist and critical-feminist (de Beauvoir), critical psychology (Laing, Rogers, Huxley) and critical pedagogy literature (Friere, Illich, Holt, Neill) that was breaking into the formal academic world from the periphery. My professional work in educational psychology already focused on the marginal voices: young people who did not “fit into” mainstream education, and “women’s education” through innovative community learning projects.

When I came to Steiner education, in the 1980s, I was already enacting critical theory, though with little conceptual framing of it. I rejected the conservative, cobweb-covered, 19th century version of Steiner education. The school I founded and pioneered was to be contemporary, through creative adaptation of Steiner’s work to late 20th century, sub-tropical-rural Australia. It flourished for ten years. But my utopian vision was too fragile to endure. I realised later that my approach at that time was aligned to eco-theologian, Thomas Berry’s, post-critical naïveté. I returned to the academy to undertake a research Masters, to reflect conceptually on the creative pedagogy that I had been enacting.

The futures studies field provided a bridge for me between Steiner and the academic world, becoming a major influence. Richard Slaughter, David Hicks, Paul Wildman and others threw new light on my provisional educational philosophy, re-shaping it in many ways during the 1990s. I began publishing educational and youth futures research. In collaboration with Sohail Inayatullah, I published my first book in 2000, The University in Transformation: Global Perspectives on the Futures of the University. I was surprised and delighted to suddenly begin to receive invitations—from academics in other countries—to write book chapters and to speak at conferences. I was getting drawn into the global academic conversation.

An invitation that meant a lot to me was from Manish Jain from Udaipur, India. He was a key player in a global online community of non-western scholars exploring post-colonial alternatives to the western factory model of education. He asked me to write a book chapter as part of a global online conversation on life-long learning— a project that touched my heart. The peer-review process was unexpectedly challenging, facilitating the rethinking of my ideas with a more consciously critical, and culturally pluralistic lens. It helped me to reconceptualise my Steiner-futures-critical nexus. A recent adaptation of the original chapter in this book is currently In Press for publication in the scholarly book, Alternative Educational Futures: Pedagogies for Emergent Worlds (See Appendix 3). My unique educational philosophy was starting to gel. I was exposed to an outstanding body of post-colonial, critical-educational writing from other scholar/activists, such as Manish and Shilpa Jain, Vachel Miller, Margaret Wheatley and Jan Visser. In retrospect, I now see that my interest during this period in globalisation and global youth culture was indicative of the emergence of my later ideas on planetary consciousness.

I became startlingly aware during this period of the state of the psychological health of Australian children and young people—and in the USA and other OECD countries—especially with regard to their fears and views about the future. I began writing—and speaking—with a critical voice on education and enculturation of young people, globally.
I called what I was seeing, the Youth Problematique, and began to reflect on the deeper issues that were underlying it (See Appendix 1). My Masters research had already indicated that Steiner educated students were more able than mainstream students to envisage their preferred futures in rich imaginative detail and, rather than being disempowered by their fears about the future, they expressed a sense of activism and confidence that they could turn things around and create better futures.

My growing concern about the youth mental health statistics in Australia led me to become employed as a School Psychologist/Counsellor with the public education system re-activating my earlier professional psychology career that I had left behind 15 years earlier to be a mother and Steiner educator. After a dozen or so years of working in the gentle soul environment of Steiner education—notwithstanding its anachronism and idiosyncracies—I was struck by what I experienced as the structural violence of the public education system. My concern and empathy for the young people in my care was not matched by what I could offer them, given the institutional conditions of fragmentation, time constraints, lack of support and soulless impersonality. These conditions were illness promoting for me, such that I was unable to continue in this work. This experience lent support to my intuition that mainstream education contributes to the growing mental health issues in young people. I decided to dedicate myself to research that may illuminate the educational crises and what may underlie it, thereby pointing to paths beyond it. I enrolled in a PhD.

To summarise, prior to the commencement of this dissertation, my educational philosophy was conceptually influenced by critical-feminist, Steiner, futures, post-colonial, global and psychological discourses. Also, without having a concept for this, I was conceptually working beyond the institutional arena of education (Foucault’s connaissance) to address the broader enculturation process through attending to the surrounding worldview (Foucault’s savoir).

I realised more and more how urgently we need to change our thinking about how we educate children and young people. As I came to a deeper understanding of futures theories and methods, I became inspired by the Causal Layered Analysis (CLA) methodology. Inayatullah, who developed CLA describes it as "poststructuralism as method" as it dives conceptually into the layers underlying the litany of symptoms, to the discourses, the worldviews and even the deeper myths, metaphors and stories underlying these. It led me further with my research as the question formed in my being: What is the role of spirituality in education in education? What philosophies, worldviews and narratives are there that can offer positive alternatives to the spiritual bankruptcy of the materialistic Western narrative underlying our de-vitalised educational systems?

I also became involved in an academic network on spirituality studies in education as a result of presenting at the conference referred to below. This led to being invited to write additional papers on spirituality in education, which have become Chapters Four and Five in this dissertation.

Chapter One was first presented at the Suicide Prevention Australia conference with the theme of Finding Meaning to Sustain Life: The place of spirituality in suicide prevention. It was later published in the Journal of Futures Studies (2005).
Chapter One

Giving Hope back to our Young People: Creating a New Spiritual Mythology for Western Culture

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Articles can be accessed online at: http://www.jfs.tku.edu.tw/sarticles.html

Accepted manuscript can be accessed at: http://researchbank.rmit.edu.au/view/rmit:3646

[Chapter One covers dissertation pages 70-83 inclusive]
Chapter Two: Encountering Integral

As a result of the publication of the University in Transformation two significant invitations were forthcoming. Firstly, physicist and integrative educator David Scott, Chancellor of UMass (Amherst), recommended me as a keynote speaker at the Philosophy, Science and Theology (PST) Festival in Grafton in 2001. Secondly, after meeting Scott there, his response to my presentation was to invite me to contribute a chapter to a book in the Spirituality in Education Series he was editing (Chapter Two).

Although I was already reading/integrating Wilber, Scott’s integral approach was broader, exposing me to new writing and ideas. I became more aware of Jean Gebser’s significance, along with integrative scientists, Arthur Zajonc, Peter Russell, Karl Pribram, and others. This broadened my perspective by introducing me to other integral streams, in addition to Wilber. I was beginning the conceptual hermeneutic dialogue between my internalised Steiner understanding and my new understanding of integral theorists (See Appendix 2 for background on Steiner and Wilber). The significant resonances between Steiner’s and Wilber’s work were seriously lighting my conceptual fires.

In this early period of my doctoral research, I also met Gary Hampson at the 3rd International Soul in Education Conference in Byron Bay in 2003, where I presented a paper and workshop. We immediately connected around our interest in Wilber, Tarnas and other integral theorists. Thus began an extremely fruitful and generative personal and scholarly dialogic relationship that has had a substantial impact on my (and his) conceptual development, and has led to joint publications and other collaborative work (See Appendix 4).

These connections influenced my decision to travel to Boulder for three months in 2005, to work in an honorary capacity with Wilber’s Integral Institute,1 to deepen the authenticity of my research. I met Ken Wilber several times as well as integral theorist Sean Esbjörn-Hargens and other members of this community. I was invited to speak to the CILA community in Amherst and met others who contribute significantly to integral thinking, such as Arthur Zajonc (Amherst College), Ashok Gangadean (Haverford College), and Joseph Subbiondo and Judie Wexler, California Institute of Integral Studies (CIIS). These meetings with the people in the vanguard of researching, conceptualising and enacting integrality in the world deepened my understanding of integral theory and its many manifestations. Such face-to-face human-connections are very inspiring, and have dramatically infused my research in untold ways that I am still integrating. This important living component of my research involving meeting key researchers face-to-face was enriched by a research visit to Europe in 2007 to deepen my understanding of the flavour of European Integral/Transdisciplinarity (See Interlude Seven). The influence of all these encounters is still active and growing, with spiritual-organic fecundity, seeding my conceptual notion of integrating the integrals.

Chapter Two demonstrates the early beginnings of my integration of integrals project and provides a broad context for the deeper analysis of the subsequent chapter. It is adapted from the Philosophy Science and Theology Festival paper and was published in Integral Learning and Action: A Call to Wholeness, Volume 3 of Studies in Education and Spirituality Series.

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1 This work with Integral Institute, including facilitating futures visioning workshops to assist with long-term planning of Wilber’s Integral University, was undertaken with Gary Hampson.
Chapter Two

Spiritual Epistemologies and Integral Cosmologies: Transforming Thinking and Culture

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Chapter viewable online via Google Books: http://books.google.com.au

[Chapter Two covers dissertation pages 86-113 inclusive]
Interlude Three: A Postmodern Turn to Pluralism

As an intuitively pluralistic, inclusive thinker, I struggled with a tacit assumption that I had to limit my research to a particular philosophy, epistemology and methodology. However, through immersion in the integral and postformal literature, I gradually realised the significant philosophical, epistemological and methodological implications of the postformal features of complexity, pluralism, multiperspectivism, paradox and creativity to name a few. My philosophical journey has involved developing clearer theoretic concepts to articulate my intuitive philosophical pluralism. This included three broad phases: 1) contextualising Steiner’s and Wilber’s work within the lineage of German idealism and romanticism; 2) recognising the power structures in the evolution discourse and finding support in postmodern philosophy, particularly Foucault and Derrida; 3) transcending the formalism of the dominant evolution discourse, to find postformal inspiration in Cixous’ écriture feminine, the poetic vitality in Deleuze’s lines of flight and Morin’s planetary, poetic, ecological, embodied philosophy.

The pluralism in my integral evolutionary philosophy required an adequate epistemology and methodology. Although I had been writing from a transdisciplinary perspective for years—intuitively—the relatively recent discovery of Nicolescu’s approach furthered the rigour and integrality of my transdisciplinary epistemology. His approach enabled me to cohere features of my work, such as levels of reality, the postformal logic of the included middle, and complexity.

A significant part of my early research journey was engagement with the complexity of the hermeneutics literature. I resonated with the twin relationship between postmodern hermeneutics and pre-modern hermetic science, through Hermes, messenger of the Gods. The Hermes archetype inspired me as an apt methodology for bringing marginalised spiritual-philosophic narratives into the evolution discourse. Each hermeneutic stream seemed important, yet partial: Heidegger’s phenomenology; Schleiermacher’s empathy; Gadamer’s merging of horizons; Habermas’ criticality; and the hermeneutic fragments of 18th-century romantics, Schlegel and Novalis. Through Riceour I came to understand the different hermeneutic streams as part of an integrated whole, similar to Wilber’s integral hermeneutics. Yet hermeneutics felt inadequate to express my entire methodological process with its many other components.

My research on postformal reasoning led me to Joe Kincheloe and Shirley Steinberg’s writings on post-formality in education, which led to discovering Kincheloe’s educational methodology of bricolage. An unexpected breakthrough! I strongly resonated with bricolage as my overarching methodology as it included—at least—hermeneutics, philosophical and historical analysis, complexity and spirituality. My data searching process is somewhat unique in that it privileges the subject over the object. I track down the leading-edge thinkers in the various relevant fields then investigate their context and influences. This alerts my attention to lead ideas, individuals and communities of research. On the one hand, this highlights the high degree of disjuncture between disciplines and sub-fields within disciplines. On the other hand, it demonstrates the gradual increase in interdisciplinary, integrative, transdisciplinary research as an emerging meta-coherence of human knowledge—albeit still in its infancy.

The Metalogue discusses how my dissertation embraces philosophical, epistemological and methodological pluralism. It also highlights the complex hermeneutic circularity inherent in making statements about emergent movements of consciousness beyond formal thinking.
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1 Introduction

To articulate and organize, and thereby recognize and understand, the problems of the world, we need a reform in thinking ... The education of the future is faced with this universal problem because our compartmentalised, piecemeal, disjointed learning is deeply, drastically inadequate to grasp realities and problems which are ever more global, transnational, multidimensional, transversal, polydisciplinary and planetary. (Morin, 2001, p. 29)

This metologue provides an overview of philosophical, epistemological and methodological developments aligned to what Morin sees as the necessity for “reform in thinking.” I navigate through this complex1 pluralism of approaches to discuss my philosophical, epistemological and methodological approach.

Chapter Two, Spiritual Epistemologies and Integral Cosmologies reviews the crisis of fragmentation in education and culture, the epistemological crisis underpinning it, and the failure of 20th century universities to address these complex challenges. It provides a macrohistorical context for considering an integral evolutionary view of consciousness. Its broad scope does not allow for an in-depth conceptual analysis of psychological development or cultural evolution. Nor is the use of terminology sharply nuanced. The terms pre-rational, rational and trans-rational are used to characterise three major thinking stages that can be identified in both individual development and the evolution of cultural cosmologies. This is a first level attempt to integrate developmental and evolutionary perspectives.2

Chapter Three, The Evolution of Consciousness as a Planetary Imperative, provides a more in depth focus on cultural evolution including a careful exploration of the variety of terms used in various contexts. It involves a substantial hermeneutic analysis of Steiner’s, Gebser’s and Wilber’s integral evolutionary narratives, which all point to the emergence of a new movement of consciousness. This material is contextualised within relevant academic literature. As discussed in the Prologue, I arrive at the term postformal-integral-planetary consciousness to characterise my concept of the proposed emergence. This term reflects a significant conceptual development beyond my use of post- or trans-rational in Chapter Two. At times I use the single terms formal, from Piaget’s formal operations, and postformal for the developmental shift discussed here.3

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1 The original meaning of complex was “that which is woven together” (Morin, 2001, p. 34). Morin has recently been named a third generation complexity theorist, taking complexity theory into philosophy (Alhadeff-Jones, 2008).
2 My understanding of postmodernism is limited in Chapter Two. It reflects the “myth-of-the-given” within some futures and integral literature. A more nuanced understanding of postmodernism is revealed in subsequent chapters.
3 I use formal and postformal to distinguish types of research in the Prologue, and types of methodologies, below.
The differences between formal research and postformal research are discussed in depth earlier, highlighting the complexity of this project and the need for navigation (see Prologue, Table P2). The purpose of this Metalogue is to discuss the plurality of philosophical, epistemological and methodological approaches that I utilise to demonstrate the shift to postformal thinking. It also provides navigational links to the examples of these approaches throughout the remainder of the dissertation. In Chapter Three, I identify twelve theoretical issues surrounding evolution of consciousness research (see pp. 19-25 in the article pagination). Many of these issues are elaborated below as part of the philosophical and epistemological orientation of my study.

2. Integral Evolutionary Philosophy

The thought of the ideal of humanity as a whole [is] guided by the thread of its evolution through the epochs of time. Systems like that of Darwin are also seeking for this guiding thread. The grandeur of Darwinian thought is not disputed, but it does not explain the integral evolution of man... So it is with all purely physical explanations, which do not recognise the spiritual essence of man's being. (Steiner, 1928/1978, para. 4-5)

The term evolutionary philosophy is primarily used to denote philosophical approaches to evolution theory. In spite of the strong interest in evolutionary philosophy by the German Idealists two centuries ago, philosophical contributions to evolution have been relatively minor during the past century in contrast to the dominance of classical biology. Notable exceptions are Steiner, Bergson, Sri Aurobindo, Teilhard de Chardin, Charles Peirce and contemporary integral philosophers, such as Wilber. These contributions have been marginalised by evolutionary biology— and more recently— evolutionary psychology literature. Further discussion of the evolution of consciousness discourse is located in the Prologue and Chapter Three (pp. 15-18).

Although philosophy concerns itself with the history of ideas, less attention has been paid to the evolution of ideas or the futures of ideas. This has paralleled the turn away from the speculative and metaphysical orientation of idealism towards increasingly materialistic

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4 Reading these first may be a useful hermeneutic orientation for a deeper understanding of the Metalogue.
5 The term evolutionary philosophy may also be used in contemporary philosophical discourse to refer to the application of Darwinian notions of evolution to the development of ideas— as an attempt to biologise philosophy. A more common term for this philosophical stance is evolutionary epistemology to denote the relationship between the concept of evolution and the development of knowledge. The notion of evolutionary epistemology is contested among different schools of thought, some authors referring to a more naturalistic Darwinian basis of epistemology after Donald Campbell and others taking a more metaphysical or philosophical position in line with Karl Popper (Bawden, 2004; Christensen & Hooker, 1999; Lemos, 2002; Pigliucci, 2007). The latter approach is applied in the context of bridging science and theology (Shipway, 2002).
philosophic forms, such as late pragmatism in North American philosophy (Gare, 1999; Gitre, 2006) and early postmodernism in Europe, prior to the spiritual turn (Benedikter, 2005; Caputo, 1997; Habermas, 2008; Manoussakis, 2006; Reynolds, 2006). On the other hand, the futures studies field, which does concern itself with the future, does not have a strong philosophical presence, although macrohistorical futures tends towards philosophy (Galtung & Inayatullah, 1998). If one takes a macrohistorical futures lens to developments in philosophy there are indications of the philosophical impact of the emergence of new consciousness. In spite of little explicit reference to the evolution of philosophy in the evolution, philosophy or futures literature, I tentatively propose an emerging new meaning of the term evolutionary philosophy in which philosophy as a discipline is evolving towards more integral ways of conceptualising, hence my phrase integral evolutionary philosophy.

2.1 Beyond Boundaries and Territories: Is Philosophy Evolving?

Great stress is laid on the limitations of thought, reason, and so on, and it is asserted that the limitation cannot be transcended. To make such an assertion is to be unaware that the very fact that something is determined as a limitation implies that the limitation is already transcended. (Hegel, Logic, p. 134, cited in (Priest, 1991, p. 369)).

Over two centuries ago Hegel proposed that the limitations that had been placed on thought by Kant’s philosophy contained within them the seeds by which they can be transcended. Hegel’s dialectical philosophy could be seen as a significant contribution to the evolution of philosophy through postformal thinking. Since the Cartesian revolution of the 17th century, the notion of the separation of two realms: mind and matter—or spirit and matter—has been at the centre of much divisiveness between scientific, philosophical and spiritual discourses (Foucault, 2005; Scott, 2000; Tarnas, 1991). This division and subsequent segregation of fields of human knowledge was deepened by what has been called Kant’s barrier (Kovac, 2002). According to Kant, the rational human faculties lead us to the very boundaries of what can be known, by clarifying the conditions under which experience of the world as we know it is possible. Kant’s major philosophical interest was to determine the boundaries of what can be known through establishing fixed concepts. As postmodern philosopher and Derrida biographer and translator Geoffrey Bennington (1989/1992) claims: “Kant’s philosophy is all about drawing frontiers and establishing the legality of [conceptual] territories” (p. 10 of 18). In this way, Kant philosophically consolidated...

* The early pragmatism of William James was more spiritually oriented (Gitre, 2006).
formal knowledge practices, thus enabling the subsequent colonisation of knowledge by science. This formalisation of philosophy arguably represented the culmination of the mental-rational thinking mode initiated in Athenian Greece two millennia earlier (see Chapter Three, Section 7). It also created an epistemological barrier for many academics—including philosophers—to accessing new ways of thinking and knowing.

In addition to Hegel, several philosophers have endeavoured to evolve philosophy beyond the limitations of these “boundaries,” “frontiers” and “territories.” Rudolf Steiner, integrating Hegel’s phenomenology of spirit with Goethe’s delicate empiricism, proposed a spiritual science7 which “would never say that there are definite frontiers to human knowledge. What it would rather say is that for [humans] those worlds exist, for which [they have] the organs of perception (Steiner, 1909/1965, p. 11). Heidegger (1971) took the view that “A boundary is not that at which something stops but, as the Greeks recognized, the boundary is that from which something begins its presencing” (p. 152). Bennington draws attention to Deleuze and Guattari’s notion of de-territorialisation in Mille Plateaux, where they note “the most important thing is perhaps frontier-phenomena, where nomad-science exerts a pressure on State science, and where, conversely, State science appropriates and transforms the data of nomad science” (p. 499) (Bennington, 1989/1992, p. 16 of 18).

Several territorial issues arise in relation to theoretic narratives about human origins and evolution. These reflect phenomenological, epistemological and philosophical territorialisation.

Part of the phenomena being researched in this dissertation is the available archaeological and symbological evidence on the origins of human consciousness. The territorial issues surrounding these phenomena are socio-cultural and geo-political. Cultural heritage, language, geo-political region and nationality are all associated with a type of ownership, or territorialism. Territorial biases are notable in unilineal African genesis theories, Western-Euro-centrism, Anglo-centrism, nationalism, and geo-political hegemony regarding indigenous rights to their cultural heritage. Counter threads have also begun to emerge (see Chapter Three, Section 3, and Appendix C).

Epistemological territorialisation is evident among formal academic disciplines. While evolutionary biology, archaeology and anthropology have dominated the evolution discourse until a couple of decades ago, the biologisation of the social sciences has fostered territorial competition among evolutionary psychologists, neuroscientists, linguists and art historians.

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7 Steiner refers to his spiritual science as a “systematic noetic investigation” (Steiner, 1970, p. 25).
Paradoxically, the gradual infusion of postmodern and postformal thinking has softened some disciplinary boundaries, resulting in a surge of interdisciplinary studies, clustering together researchers from anthropology, archaeology, biology, cognitive science, genetics, linguistics, philosophy and psychology (see Chapter Three, Section 3, and Appendix C).

Thirdly, there is a philosophical territorialisation underlying the different approaches to the discourse. Interrogation of this layer of the research uncovers the deep territorial entrenchment of the metaphysics of materialism in most modernist scientific and pseudo-scientific research—such as evolutionary biology, psychology and anthropology. Scientific materialism—or physicalism—is the metaphysical paradigm of much of the current research on human origins. This may hinder rather than enhance research into phenomena such as language, thinking, culture and art, which represent noetic domains that include but transcend the physical and biological (see Table M1).

To address these territorial issues my research engages in several types of deterritorialization (Deleuze & Guattari, 1994). By taking a planetary perspective the research transcends the socio-cultural and geo-political territorialization. By utilizing a transdisciplinary epistemology the disciplinary boundaries are transcended. Thirdly, this research transcends the territorial entrenchment of physicalism by emphasising philosophical evolutionary narratives that problematize the metaphysical materialism of the dominant scientific evolutionary discourse. The importance of transcending the boundaries and limitations of formal rationality by identifying and articulating postformal, integral modes of reasoning is beginning to be recognised at the leading-edge of many disciplines (see Chapter Three, Section 8).

The evidence for the evolution of consciousness is considered in some detail in the penultimate section of Chapter Three. It includes literature that directly identifies new stages or movements of consciousness, and also literature that appears to enact new postformal consciousness though not necessarily explicitly identifying it as such. Another theoretical approach is to view it as the shift from modernism to postmodernism. I will briefly summarise a number of scientific and philosophical developments in the academy since the beginning of the 20th century, which, when taken together, could be said to mark the shift from modernism, based on formal reasoning, to postmodernism, which opens towards postformal reasoning.

- The eclipsing of correspondence theories of knowledge, such as empiricism, by coherence theories based on social constructivism (Cicovacki, 2004);
• The scientific turn from Newton’s to Einstein’s physics followed by the shift from physics to biology, reflected in chaos and complexity sciences (Combs, 2002; Einstein, 1920/2000; Maturana & Varela, 1980/1991);

• The parallel—though marginalised—philosophical turn from static mechanistic metaphors to organic, living, process metaphors of thinking (Bergson, 1911/1944; Deleuze & Guattari, 1994; Steiner, 1894/1964; Whitehead, 1929/1985);

• The emergence of holistic and integral thinking in various fields including philosophy (Benedikter, 2005; Gangadean, 1998; Gidley, 2006; Hampson, 2007; László, 2007; Wilber, 2000a);

• The increasing focus on language as philosophical content—the linguistic turn—through the works of de Saussure and Wittgenstein (Matthews, 1996, p. 136), and the awareness of linguistic reflexivity and polysemy in the contributions of the French post-structuralists (Deleuze, 1968/1994; Deleuze & Conley, 1992; Derrida, 1998, 2001; Kristeva, 1986);

• An increasing awareness of the politics of discourse and social relations (Cixous, 1991; Foucault, 1966/1994, 1986; Habermas, 1986);

• A renewed awareness of context and historicity through developments in hermeneutics, particularly in Europe (Gadamer, 1960/2005, 1986b; Habermas, 1986; Heidegger, 1927/1962; Paul Ricoeur, 1985/1988; Paul Ricoeur, 1986);

• The implications of the information age, particularly the mass media and the world wide web (Baudrillard, 1988; Thompson, 1998);

• New attempts to create knowledge-bridges between disciplines, through interdisciplinary and transdisciplinary research (Grigg, Johnston, & Milson, 2003; Klein, 2004; Nicolescu, 2002; Paul Ricoeur, 1997; van den Besselaar & Heimeriks, 2001);

• The religious turn in continental philosophy (Habermas, 2008; Manoussakis, 2006) and the spiritual turn in the late works of the French postmodern philosophers (Benedikter, 2005; Caputo, 1997).

These systemic shifts are complex, interconnected movements that require a delicate theorising* to articulate.† They can be elaborated slightly differently depending on the context. For example, in the Prologue I begin a process of theoretically articulating how these shifts are

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* I coin the term delicate theorising as an echo of Goethe’s delicate empiricism (see Chapter Five).
† I am aware of limitations in my ability to cohere these complex developments. I also propose that the complex task of unfolding the postformal-integral-planetary futures of philosophy is a multi-dialogic one.
reflected in the emergence of postformal research approaches. In Chapter Three I discuss a similar cluster of developments in relation to discourses that identify and/or enact a new movement of consciousness. Other integral-postformal philosophers are also in the living process of articulating these shifts (Benedikter, 2007; Gangadean, 1998; Goerner, 2004; Hampson, 2007; Tarnas, 2006). These diverse, somewhat independent, yet interconnected movements pave the way for the emergence of more living and pluralistic philosophies.

Deleuze and Guattari significantly furthered the notion of bringing philosophy to life through conceptual creativity. They propose that “philosophy is the art of forming, inventing, and fabricating concepts … [and although] sciences, arts, and philosophies are all equally creative … only philosophy creates concepts in the strict sense… philosophy is the single point where concept and creation are related to each other” (Deleuze & Guattari, 1994, pp. 2-11). And yet, as they reveal elsewhere, concepts themselves are not closed, finished, “ready-made,” but rather, “concepts are centers of vibration, each in itself and every one in relation to all the others” (p. 23). Notwithstanding that Deleuze and Guattari’s views on philosophy represent only one form of postformal philosophy, their views suggest that philosophy needs to entertain a more de-territorialised, pluralistic notion of concepts. They claim:

There are no simple concepts. Every concept has components and is defined by them. It therefore has a combination [chiffre]. It is a multiplicity… The concept is a whole because it totalizes its components, but it is a fragmentary whole… We are dealing here with a problem concerning the plurality of subjects, their relationship, and their reciprocal presentation. (Deleuze & Guattari, 1994, pp. 15-16)

Such complex conceptualising of philosophy points to a re-creation of the concept of philosophy itself to include: creativity, pluralism and relationship. Morin’s work is also a vital contribution to the evolution of a more living philosophy (Morin, 2001, 2005a; Morin & Kern, 1999). Morin’s influence on my work is discussed in Chapter Three, Appendix B.

In summary, I propose that the evolutionary challenge for our times is to gather the century-old seeds of philosophical revitalisation sewn by Bergson, Steiner and Whitehead, that were irrigated and fertilised by French philosophers, such as Deleuze and Guattari, and more
recently Morin, and to irradiate them with the dialogic imagination. This may assist in furthering the philosophical aim of Steiner in 1894: “that knowledge itself shall become organically alive” (Steiner, 1894/1964, p. xxix). Surely this would be an adequate aim of an authentic evolutionary philosophy?

2.3 Philosophical Pluralism

The main impetus for a pluralist conception ... derives from the historical philosophy of science notably championed by Kuhn and Feyerabend. By contrast with earlier monist orthodoxy, advocates of the historical approach argued that science should be conceived as a developmental process, which takes place in a variety of historical circumstances using a variety of methods, rather that the implementation of an invariant, universal method. (Nola & Sankey, 2000, p. 212)

The notion of pluralism was introduced at the paradigmatic level last century through the emergence of the historical, developmental— even (r)evolutionary— approach within the philosophy of science discourse on the theory of scientific method (Nola & Sankey, 2000). This paradigm shift within science paved the way for the emergence of philosophical pluralism, which was an issue of contention among academic philosophers in the USA during the 1980s. The central issue appears to have been the claim by philosophical pluralists that the so-called philosophical establishment had “systematically excluded philosophers of certain philosophical and ideological antecedents from positions of honor and preferment” whereas, according to the pluralists, “all varieties of philosophy should be accorded equal respect” (Mandt, 1986, p. 265).

Philosophical pluralism, as one might expect, does not have a singular meaning. Two key versions are discussed by Norman Swazo: the narrower version of John Lachs, which refers to philosophical pluralism as “due representation of the analytic, Continental, and American philosophical traditions;” and the more inclusive version, often also referred to as comparative philosophy, which includes "work in the complex traditions of Chinese, Indian, African, Latin American, Islamic, Jewish, feminist, and Native American thought” (Swazo, 1998, para. 2).

I consider philosophical pluralism to be central to my integral evolutionary philosophy. In relation to the narrower version of philosophical pluralism, my research seeks to balance the Anglophone and particularly North American philosophical dominance in the evolution of...
consciousness discourse by noting the relevance of several strands of continental philosophy to
the integral philosophical project as a whole— in particular, German idealism and romanticism
(Hegel, 1977; Huy, 1991; Schiller, 1954/1977; Schindler, 1964); phenomenology (de Beauvoir,
1952/1989; Husserl, 1905/1964); hermeneutics (Gadamer, 1986a, 1986b; Habermas, 1986;
Heidegger, 1927/1962; Ricoeur, 1986); critical social theory (Habermas, 1972, 1979, 1992) and
French structuralism, postmodernism and poststructuralism (Cixous, 1991; Deleuze, 1968/1994,
Morin, 2005 #1203; Morin, 2005b; Morin & Kern, 1999; St. Pierre, 2004). An emerging view in
recent philosophical discussions makes a distinction between deconstructive postmodernisms
(such as poststructuralism) and reconstructive— or cosmological— postmodernisms14 (such as
integral theory or Whitehead’s process metaphysics) (Gare, 2002; Kegan, 2002; Keller & Daniell,
2002). It has been demonstrated that some Wilberian integral theorists take a dichotomous view
that reflects limited appreciation of deconstructive postmodernism (see Hampson, 2007).
Developmental psychologist, Robert Kegan (2002) makes this claim:

So, there’s a critical distinction between on the one hand, a negative postmodernism that is
all about trashing any ideological form, which is only deconstructive and is all about a
fatigue with and critique of the ideological, and on the other, what I call a more
reconstructive postmodernism that is not just about trashing. (para. 29)

Kegan’s comment reflects what appears to be a residue15 of unresolved dualism. My
integral evolutionary philosophical stance goes beyond this dualism to view reconstructive
approaches, such as Steiner, Gebser and Wilber through critical and postmodern philosophical
lenses. This may help to counter the tendency among some “reconstructive approaches” to slide
into modernist, ideological fallacies where their initially vital ideas become codified and
propagated as mythic ideologies. An alternative— less dualistic— integrative approaches to
deconstructive and reconstructive postmodernisms are found in postmodern spirituality
(Benedikter, 2005); and dialogues between integral and postmodern (Hampson, 2007). My
research also broadens the— largely American-centric— integral discourse by foregrounding the

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13 Arguably, Nietzsche and Steiner could be considered to represent an earlier German strand of proto-
postmodernism and this could be pursued as future research.
14 I would also include anthroposophy among the reconstructive postmodernisms.
15 I have adapted this phrase from Owen Barfield who referred to Teilhard de Chardin’s residue of unresolved
positivism (RUP) http://davidlavery.net/Barfield/Encyclopedia_Barfieldiana/Lexicon/RUP.html
marginalized, non-Anglophone continental philosophies of Steiner and Gebser.

Secondly, I have pointed towards the broader notion of comparative philosophy through my inclusion of diverse cultural threads in the main theoretic narrative of Chapter Three, and particularly Appendix B of that chapter where I consider the notion of cosmopolitanism. I also refer to the need to embrace the pluralism of the perennial philosophy in Chapter Two (p. 38). These emergent efforts towards coherence between diverse philosophical discourses may reflect the beginnings of a new stage in the evolution of philosophy, as expressed by McKeon below.

The coming world philosophy will be marked by the development of a philosophic sense, a sensus communis philosophicus, to relate the varieties of philosophy by adapting them to changes of discussion rather than fixing them by attack and defense in disputation. (McKeon & Swenson, 1998, p. 478)

A critique of philosophical pluralism is that it can lead to relativism. The limitations of a relativistic philosophical pluralism are balanced by the vertical discernment of adaequatio (see Table M 1).

2.4 Adaequatio

There is a genuine novelty that emerges with culture, now superimposed on the wild nature out of which humans once emerged. It is important to see how biological phenomena gave rise to culture, but it is just as critical to realise how culture exceeds biology, just as it is vital to see how biology exceeds physics and chemistry. (Rolston III, 1997, Outline, para. 3)

Philosopher/theologian Holmes Rolston III—referred to as “the father of environmental ethics”—hereby begs the question of the adequacy of epistemologies from physics or biology for understanding culture. This points to the notion of adaequatio, developed by neo-Platonist, Plotinus (205-270 CE), and meaning “the understanding of the knower must be adequate to the thing to be known” (Schumacher, 1977, p. 39). Theoretical biologist, Ludwig von Bertalanffy, initiated important developments in establishing a theoretical case that the methods of classical physics were not appropriate for studying biological life (Bertalanffy, 1969/1976). He developed the theory of open systems, claiming that traditional closed system models based on classical science were “in principle, inapplicable to the living organism... [and] that many characteristics...
of living systems which are paradoxical in view of the laws of physics are a consequence of this fact" (p. 39-40). The epistemological shift from physics to biology mirrors the difference between the objects of study—the domain of the physical to the domain of life (Bertalanffy, 1969/1976).

The question that this dissertation asks according to the theory of adaequatio is: To what extent does an epistemological shift need to also occur when the object of study shifts from the domain of life to the domain of human language, thinking and culture? Arguably, an adequate evolutionary approach to the evolution of consciousness needs to reflect an inherently hierarchical—or vertical—dimension that is not fully addressed by heterarchical—or horizontal—approaches to research. In 1904, Steiner proposed the need for different approaches to researching the different levels of being. Foreshadowing philosopher of science Sir Karl Popper’s notion of three worlds, Steiner also referred to three worlds, noting: “a clear understanding of them and of [our] share in them can only be obtained by means of three different modes of observation” (Steiner, 1904/1971, pp. 4-6). He elaborated: “the biologist is concerned with the body, the investigator of the soul—the psychologist—with the soul, and the investigator of the spirit with the spirit” (Steiner, 1904/1971, p. 10). He called for a spiritual science (or Geist science), which he later developed. Other researchers have tacitly echoed Steiner’s multi-layered approach to scientific research (Harman, 1988; Popper & Eccles, 1977; Rolston III, 1997; Wilber, 1998). According to this model the epistemology of classical biology would not represent coherence between the object of study—the evolution of human consciousness—and the epistemology that studies it.

Systems engineer and former president of the Noetic Sciences Institute, Willis Harman (1988), conceived a hierarchical model of science drawing on Popper’s three worlds (Popper & Eccles, 1977). I have adapted Harman’s model (see Table M1) to include the notions of geosphere, biosphere, noosphere and pneumatosphere (see also Chapter Two, p. 42).

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18 While Popper makes no reference to Steiner’s three worlds—body, soul and spirit—Popper does draw analogies between his own three worlds and Plato’s philosophy. Popper notes that Plato’s visible objects corresponds closely to his World 1; that Plato’s states of the soul corresponds to his World 2; and that Plato’s world of ideas corresponds vaguely to his World 3. Popper also indicates that he is an opponent of essentialism—implying that his World 3 is as epistemological as Plato’s is ontological (Popper & Eccles, 1977, pp. 43, 450). While Steiner’s first two worlds correspond closely with Plato’s and Popper’s, his third world—spirit—is closer to Plato’s ontology of “forms,” yet is approached epistemologically, thus integrating Popper’s constructivist world of “products of the human mind.”

19 Steiner’s ontology and epistemology were both evolutionary—not static—where the mind is co-creator in evolution.

20 There is a complex genealogy to the terms geosphere, biosphere and noosphere. The terms geospheres (sic) and biosphere were coined by Austrian geologist Eduard Suess (1831-1914) as correctly attributed by both Teihard de
Table M1: A Hierarchical Cohering22 of Knowledge Spheres and Epistemologies based on Plotinus’ *Adaequatio* and Popper’s Three Worlds

<table>
<thead>
<tr>
<th>Domains of Interest</th>
<th>Harman: Levels of Science [Bracketed points added by Gidley]</th>
<th>“Spheres” of Suess, Le Roy, Teilhard de Chardin, Florensky</th>
<th>Popper’s 3 worlds</th>
<th>Popper’s Cosmic Evolutionary Stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain of language, thinking, culture</td>
<td>Human sciences [psychology, anthropology, philosophy]</td>
<td>Noosphere</td>
<td>World 2 (the world of subjective experiences)</td>
<td>(5) Human Language. Theories of self/death</td>
</tr>
<tr>
<td>Domain of life</td>
<td>Life sciences [biology]</td>
<td>Biosphere</td>
<td>World 1 (the world of physical objects)</td>
<td>(4) Consciousness of self/death</td>
</tr>
<tr>
<td>Domain of physical</td>
<td>Physical sciences [physics, geology]</td>
<td>Geosphere</td>
<td>(3) Sentience (animal consciousness)</td>
<td>(2) Living Organisms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1) Heavy Elements</td>
<td>(0) Hydrogen, Helium</td>
</tr>
</tbody>
</table>


22 In Table M1, although there is considerable common ground between these models they are not identical. In each model the layers do not represent discrete, bounded categories. They interpenetrate each other.

23 Anthroposophy—wisdom of the human being—is the term Steiner used for his spiritual science. It is an interesting lexical combination of anthropology and philosophy.
In regard to the adequate coherence between the object of knowledge—the evolution of consciousness—and how it is researched, the present research is framed within a layered, transdisciplinary epistemology that foregrounds the noosphere, conscious evolution and the domain of spirituality—the pneumatosphere—in contrast to the dominant evolutionary discourse, which remains limited to the biosphere.

In summary, my primary philosophical interest is to contribute to integral evolutionary philosophy through a transdisciplinary integration of discourses that recognize a new evolutionary emergence in human consciousness. As introduced in the Prologue and discussed in more detail in Section 8 of Chapter Three, I use the term postformal-integral-planetary to represent the pluralism of my philosophical perspective offering one of many ways forward for evolutionary philosophy.

3. Epistemology: From Hyper-specialisation to Transdisciplinarity

An influx of knowledge at the end of the twentieth century... remain[s] disjointed... This raises an epistemological problem: it is impossible to conceptualise the complex unity of the human by way of disjunctive thought—which gives an insular conception of our humanity, outside of the cosmos in which we live, without the physical and spiritual matter of which we are made—or reductive thought, that reduces human unity to a purely bio-anatomical substrate. (Morin, 2001, pp. 40-41)

Morin identifies the two major obstacles to addressing the complexity of human life, in the twenty-first century planetary era: biological-anatomical reductionism, and hyper-specialisation (Morin, 2001, p. 34). Within the modernist academic tradition, based as it has been on scientific empiricism and analytic philosophy, there is a privileging of the metaphysics of materialism, the binary logic of either/or with its excluded middle and the segmentation of knowledge into disciplines—and hyper-specialisations within those. In this formal epistemological model, knowledge is contained in what have become known as silos, where even sub-fields within disciplines are often not familiar with each other’s work. Specialisation brings with it an infinite regress into detail and the separation of knowledge into smaller fragments discussed in narrowing discourses—an academic Tower of Babel. As Morin elaborates: “Fragmented, compartmentalised, mechanized, disjunctive, reductionist intelligence breaks the ‘world-complex’ into disjointed fragments, fractures problems, separates what is connected, makes the multidimensional unidimensional” (Morin, 2001, p. 35). This creates significant challenges in relation to the complex problems of our times (see Chapter Two).
A broad sweep through the literature on postformality suggests that even within this specialised area of adult developmental psychology there are sub-clusters of researchers who do not refer to each other’s research. Different writers use slightly different terms, perhaps indicating a lack of theoretical coherence. While several adult developmental psychology researchers use the term postformal to refer to stages beyond Piaget’s formal operations (Commons & Richards, 2002; Kohlberg, 1990; Kramer, 1983; Sinnott, 1998), Cook-Greuter uses both post-conventional after Kohlberg’s third moral stage, and post-symbolic, after Charles Alexander (Cook-Greuter, 2000). Wilber uses the terms vision-logic, integral and centaur to refer to postformal stages of consciousness. In educational research, in addition to the term post-formal (Kincheloe & Steinberg, 1993, 1999; Villaverde & Pinar, 1999), the term postfoundational is also used (MacLure, 2006; Shipway, 2002).

3.1 Epistemological Pluralism

In our situation of globalization, modern historical consciousness has developed into a postmodern kind of pluralistic consciousness... Within the inescapable fact of human dialogue lies the boundary-transgressive inscription of the open whole, not a new totality of the same, but a pluriverse of difference in relation that is shot though with the promise of value. (Reynolds, 2006, p. 2, 4)

In parallel with philosophical pluralism signs of epistemological pluralism have been emerging. The postmodern critique of the dominance of scientific positivism as a universal epistemology, or theory of knowledge, has led to a revaluing of the contributions of disciplines other than science to the construction of theories of knowledge (Balsiger, 2004). Secondly, there has been a steady movement in academic research in the last two decades to go beyond the perceived limitations of single disciplinary approaches arising from a “widespread recognition that important societal questions can no longer be adequately addressed within a single discipline” (Grigg, Johnston, & Milson, 2003, p. 1). A range of terms is used in different contexts to refer to this trend. Their history and meanings is highly contested. Major terms include: interdisciplinary, multi-disciplinary and transdisciplinary. Minor—or less frequently used—

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24 This disjunction also occurs within integral studies, where researchers from one integral orientation do not reference researchers from other integral streams. My interest in this dissertation is to begin a more integrative conversation among integral theorists in an attempt at an integration of integral views.

25 Cross-disciplinary seems to be a favoured overarching term in Australian research, whereas in the USA interdisciplinary has had greater currency as an overarching term (Klein, 2004). A new overarching term—supradisciplinarity—has been introduced in recent German research (Balsiger, 2004).
terms include: post-disciplinary, pluri-disciplinary and even non-disciplinary.

The term non-disciplinarity, which is perhaps the most radical stance of all, is a conscious and deliberate disregard of the expectation that one should remain within the subject matter and methodology of a defined discipline. It often proceeds from an ambition to pursue big picture questions that cannot be constrained by single discipline perspectives. In the field of cultural studies, the terms transdisciplinary and non-disciplinary are used interchangeably in that they disrupt, or transform, the status quo, by transgressing discipline borders (Mato, 2000). Cultural studies also encompasses practices “outside the academy” in reference to the cultural milieu or worldview that Foucault calls savoir (e.g., the arts, the media and social movements), and not just academic or institutional knowledge or connaissance (Mato, 2000; Scheurich & McKenzie, 2005). For further discussion of this feature of Foucault’s archaeology see Prologue, Key Terms: Educational Imperatives.

One historical view of these developments is that interdisciplinarity is associated with the beginnings of a paradigmatic shift in scientific practice with the first use of the term inter-discipline in the social sciences in 1929-30 (Balsiger, 2004). There is general consensus in the literature that, in spite of occasional references in the 1970’s, the plethora of attempts to go beyond and/or integrate disciplinary forms of knowledge did not emerge in any significant way until the last decade of the twentieth century. It has been suggested that the interdisciplinarity of Julia Kristeva’s philosophical work in the late 1960’s in Paris was seminal, but paradoxically, contributed to her marginalisation as a pure philosopher (Orr, 2003).

Quoting from an OECD report Interdisciplinarity in Science and Technology (1998), Grigg et al (Grigg, Johnston, & Milson, 2003) characterise what they see as the major positions. They claim that multidisciplinary research refers to “people from different fields co-operating, working together towards a common goal but staying within the boundaries of their own fields” (p. 9). They note that the limitations of the disciplines may push them to “work at the fringes of their fields, and forge new ones” (p. 9). This is where Grigg et al. see interdisciplinary research emerge, where “persons trained in different fields of knowledge … [are] organised into a common effort on a common problem with sustained intercommunication among the participants.

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26 Post-disciplinary is used by Wilber and others working from his theory, ostensibly as a term that “transcends and includes” all the others. Yet there is little evidence that other approaches have been studied, let alone included.

27 The term science is used in that particular instance in a way that “deviates from the semantics normally used in the English language, where the term of science explicitly means the natural sciences. In the following text, the word science is based on the German understanding of the term of Wissenschaft.” (Balsiger, 2004, § 1, para. 4).
from the different disciplines” (p. 9). They then note “transdisciplinary refers to that which is at once between the disciplines, across the different disciplines and beyond all disciplines” (p. 9). I am intrigued to note that the words they use to characterise transdisciplinarity appear to be based on Nicolescu’s actual words: “As the prefix trans indicates, transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond all discipline” (Nicolescu, 2002, p. 44). In spite of Nicolescu’s foundational work in this area, he has not been referenced (Grigg, Johnston, & Milson, 2003). In an approach to interdisciplinary education, Klein’s definitions follow a similar direction where multidisciplinarity refers to a rather informal juxtaposition of disciplines, interdisciplinarity tends to “go further” into “focusing”, “blending” and “integrated designs”, while transdisciplinarity reflects “the greatest degree and scope of integrative restructuring” (Klein, 2006, p. 5 of 9).

Recent well-intentioned attempts at cross-disciplinary research in Australia have pointed to some of the major challenges (Eckersley, Wierenga, & Wyn, 2006; Grigg, Johnston, & Milson, 2003). Eckersley et al. note that contentious issues can arise around choices of methodology, interpretation of findings and the challenges in arriving at multi-perspectival rather than disciplinary perspectives in report writing. It has been pointed out that these methodological, interpretive and pragmatic tensions are underpinned by variations in conceptual and philosophical frameworks. “Tensions—‘flashpoints’—remained because of different disciplines often drawing on different conceptual frameworks to interpret the evidence” (Eckersley, Wierenga, & Wyn, 2006, p. 9). In summary, some challenges distilled from a number of studies include:

- The difficulty faced by many who are trained in particular disciplines to fully embrace unfamiliar epistemologies and methodologies;
- The perception that cross-disciplinary work is softer or not as rigorous as disciplinary research. This can have career implications for those choosing this path of research;
- Perception that interdisciplinary research is hard to publish because most academic journals are discipline based;
- Resourcing and funding implications for research and staffing, given that university structures are still primarily based around traditional disciplines.

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28 It is not clear whether the non-attribution of these words to Nicolescu first occurred in the OECD report or is an omission by Grigg et al. I have been unable to locate the particular OECD report referred to.
Further to these challenges there is a critique of interdisciplinarity and kindred approaches concerning the view that some applications may be pseudo-interdisciplinary—amounting to “a "destructuring eclecticism" and hodgepodge of "trial and error" techniques that are often a caricature of the interdisciplinary approach” (Klein, 2006, p. 3 of 9). How then, as professionals, academics, researchers, are we to work with these challenges and tackle the complexities of contemporary social issues, to address the big picture dimensions of the 21st century global problematique?

3.2 Transdisciplinarity

Transdisciplinarity is not concerned with the simple transfer of a model from one branch of knowledge to another, but rather with the study of isomorphisms between the different domains of knowledge... permitting the emergence of unity amidst the diversity and diversity through the unity... Its principal task is the elaboration of a new language, a new logic, and new concepts to permit the emergence of a real dialogue between the specialists in the different domains of knowledge (Nicolescu, 1987, para. 5).

In this statement, Nicolescu attempts to clearly distinguish between transdisciplinarity and the various other projects such as multidisciplinarity and interdisciplinarity, which—according to Nicolescu—remain within the framework of disciplinary research. He argues that “the goal of transdisciplinary research is the understanding of the present world" ... “it is radically distinct from disciplinary research ... [though] entirely complementary” (Nicolescu, 2002, p. 44).

The origin of the term transdisciplinarity has often been attributed to Erich Jantsch as he was apparently the first to use the term in a publication (Jantsch, 1972; Lawrence & Despres, 2004; Ramadier, 2004). Nicolescu initially countered this with the following broad claim:

The term transdisciplinarity first appeared three decades ago almost simultaneously in the works of such varied scholars as Jean Piaget, Edgar Morin, and Erich Jantsch... to give expression to a need that was perceived—especially in the area of education—to celebrate the transgression of disciplinary boundaries. (Nicolescu, 2002, p. 1)

Nicolescu has recently refined this broad statement by specifically attributing the coining of transdisciplinarity to Piaget.29 Nicolescu and his colleagues—notably Edgar Morin—have been

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29 “Let me recall the historical fact that Jean Piaget was the thinker who first coined the word “transdisciplinarity”, around one year before the workshop “L’interdisciplinarité - Problèmes d’enseignement et de recherche dans les universités”, held in Nice (France) from 7 to 12 of September 1970 (Proceedings published by OECD in 1972). It is true that several other contributors (Erich Jantsch, André Lichnerowicz, Guy Michaud, Pierre Duquet, etc.) use this word in their contributions, but Guy Michaud, one of the organizers of the meeting, and also André Lichnerowicz,
researching and developing this approach through the International Centre for Transdisciplinary Research in Paris. Based on my evaluation of Nicolescu’s work among others, his approach is the most aligned with what I am attempting to achieve in this research. It is a complex model, which I can only briefly summarise here.

Some clarification may be needed on the operational domains in which Nicolescu’s transdisciplinarity may be placed. Perhaps it is not a surprise that—rather like hermeneutics—the term transdisciplinarity can be used as a philosophy, an epistemology and a methodology. Nicolescu’s own complex theorizing both contributes to, and allows for, its flexible use. In the first chapter of his Manifesto of Transdisciplinarity he refers to transdisciplinarity as a “new philosophical movement” (Nicolescu, 2002, p. 2). From this philosophical perspective, he describes “three fundamental characteristics of the transdisciplinary attitude” (ibid: p. 119). These are rigour, opening and tolerance. I will briefly introduce these attitudes as they are an important indicator of the many ways that Nicolescu’s transdisciplinarity transcends more instrumental approaches. Transdisciplinary rigour is a “deepening of scientific rigor to the extent that it takes into account not only things, but also beings and their relations to other beings and things” (ibid., p. 120). Secondly, “the opening of transdisciplinarity implies, by its very nature, the rejection of all dogma, all ideology, all closed systems of thought” (ibid., p. 121). Thirdly, “tolerance results from accepting the fact that ideas contrary to the fundamental principle of transdisciplinarity exist” (ibid., p. 121).

Nicolescu (2002) also refers to the degrees of practice of transdisciplinarity, which range from “the fertilization of disciplinary research to the elaboration of a master plan for civilization” (p. 122). He notes that it can be used as an epistemology (p. 46) and also as a method—though it does not replace disciplinary methods but rather enriches them (p. 122). Later in the book when describing the main features of transdisciplinarity—which he refers to, variously, as the three axioms, postulates or pillars of transdisciplinarity—he refers to them as “three methodological pillars.” These three pillars\(^{30}\) are: “levels of Reality, the logic of the included middle, and complexity” (Nicolescu, 2002, p. 45).

\[^{30}\] A recent elaborated summary is expressed as follows: “Transdisciplinarity is the new “in vivo” knowledge, founded on the following three postulates: 1. There are, in Nature and in our knowledge of Nature, different levels of Reality and, correspondingly, different levels of perception; 2. The passage from one level of Reality to another is insured by the logic of the included middle; 3. The structure of the totality of levels of Reality and perception is a complex structure: every level is what it is because all the levels exist at the same time.” (Nicolescu, 2003)
Transdisciplinarity is increasingly used as a method in problem oriented scientific research, and in some cases is referred to as an epistemological approach (Balsiger, 2004). One view is that the process of integrating different methodologies from different disciplines leads to “an evolving methodology which transcends ‘pure’ disciplines. In epistemological terms, transdisciplinarity involves an integration of knowledges” (Horlick-Jones & Sime, 2004, § 2.1, para. 1). In an in-depth study of Nicolescu’s transdisciplinarity, philosopher Predag Cicovacki, proposes a renaming of the three pillars such that levels of reality would become “transdisciplinary ontology,” the logic of the included middle would become “transdisciplinary logic”, and the third pillar, complexity would be renamed “transdisciplinary epistemology.” In addition, Cicovacki suggests a fourth pillar: transdisciplinary values (Cicovacki, 2004).

My research calls on the three pillars of Nicolescu’s transdisciplinary project in several ways. It honours the existence of levels of reality through the hierarchy of knowledge domains that was referred to above under adeequatio (see also Chapter Two, p. 42, Vertical Dimension). Secondly, my research counters the exclusionary methods of binary logic through a conscious acknowledgement of the logic of the included middle, which I identify as an important feature of postformal thinking to assist in moving beyond the limitations of dualism (see Prologue, Table P1; Chapter Two, pp. 50-52; Chapter Three, pp. 110-116). Thirdly, my research embodies many features of epistemological complexity31 (see particularly Prologue; Chapter Three, Part 1; and Chapter Five). These are all features that have been expressed in my research, particularly in Section 8 of Chapter Three. While my research does not constitute a physical dialogue between specialists in different domains of knowledge, my entire project is a hermeneutic dialogue between different specialists, and generalists, in numerous domains of knowledge.32

Although, I resonate with his philosophical attitudes— rigour, opening and tolerance— and strive to enact them, my primary interest in Nicolescu’s transdisciplinarity is the epistemological role it can fulfil in complex multidimensional research, such as I have undertaken. My research into the evolution of consciousness includes perspectives from a wide range of disciplinary and interdisciplinary territories (see Chapter Three, Figure 1, p. 24) but is not limited to any one. I discuss the way that transdisciplinarity is able to balance breadth of span with depth dives into

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31 My approach to complexity is informed by what has been termed third generation complexity (as enacted by Nicolescu and Morin) and thus is not restricted to the mathematical and cybernetic approaches of first and second generation complexity science (Alhadeff-Jones, 2008; Morin, 2005b; Nicolescu, 2002).

32 This reaching towards transdisciplinary research is challenging— not the least in finding a common language. Multilingualism is also relevant here but cannot be elaborated in the space available.
disciplinary detail in Chapter Three (pp. 23-26). One of my conscious struggles has been to find common ground among different discourses through in-depth hermeneutic analysis of terminological and textual convergences and divergences. In Chapter Three, I weave a theoretic narrative between, across and beyond these domains of knowledge, reflecting on the isomorphisms and dissonances to arrive at new perspectives on the evolution of consciousness, thus enacting Nicolescu’s transdisciplinary project. Finally, Nicolescu (2002) refers to the goal of his project as “the understanding of the present world, of which one of the imperatives is the unity of knowledge” (p. 44). My dissertation engages with the present world through its pragmatic interest in transforming cultural pedagogical practice (see Chapters Four and Five).

4. Methodology: Bricolage as Methodological Pluralism

The bricolage understands that the frontiers of knowledge rest in the liminal zones where disciplines collide… the facilitation and cultivation of boundary work is a central theme of this process… a key aspect of ‘doing bricolage’ involves the development of conceptual tools for boundary work. (Kincheloe, 2001, p. 688-691)

This signature quote of Kincheloe on the potential role of bricolage as “boundary work” between disciplines demonstrates the intimate relationship that can be enacted between this methodological approach and the epistemological boundary work of Nicolescu’s transdisciplinarity. Theoretical bricolage as methodology is contextualised in the contemporary movement within qualitative research towards a strengthening of methodological pluralism.

The term methodological pluralism emerged in the 1970s as a sociological response to the dominance of positivist scientific research methods (Marsh, 1998). It was an attempt to go beyond the dualisms of post-positivist versus positivist, qualitative versus quantitative, and interpretive versus empirical methods. Various overarching terms have been used, such as post-positivist research—a general term for qualitative research during the modernist moment (Caulley, 1992); mixed methods research—which has been associated with pragmatism and refers in this context to mixing quantitative and qualitative methods (Johnson & Onwuegbuzie, 2004); methodological eclecticism, which often also refers to mixing quantitative and qualitative methods rather than following one or other research paradigm (Richardson, 1996); and

33 Philosopher Jürgen Habermas was influential in foregrounding the significance of post-positivist methods. He introduced the three notions of technical interests (through positivist methods for obtaining instrumental knowledge); practical interests (through interpretive/hermeneutic methods for obtaining practical knowledge); and emancipatory interests (through critical methods for obtaining emancipatory knowledge) (Habermas, 1972).
methodological pluralism, which is now common practice in British sociology research (Payne, Williams, & Chamberlain, 2004, 2005). Some researchers associate methodological pluralism with holism (Morse & Chung, 2003) and/or integral theory (Wilber, 2006). Over time, as qualitative research methodologies in general have become more established, notions of methodological pluralism have also become more comprehensive and nuanced.

In regard to the overall development of post-positivist— or qualitative— research, seven historical research moments have been identified in North America throughout the last century. These are referred to as: traditional (1900-1950); modernist, or golden age (1950-1970; blurred genres (1970-1986); the crisis of representation (1986-1990); the postmodern, a period of experimental and new ethnographies (1990-1995); postexperimental inquiry (1995-2000); and the methodologically contested present (2000-2004) (Denzin & Lincoln, 2005, p. 3). Denzin and Lincoln also refer to eighth and ninth future moments in qualitative research, in particular noting the idea of a fractured future in which the current polarisation may intensify between the neoliberal evidence-based research agenda and the qualitative researchers drawing on methods that have arisen from the more recent moments (Denzin & Lincoln, 2005, p. 1123).

As I considered the successive “waves of epistemological theorizing [that moved] across these eight moments” (Denzin & Lincoln, 2005, p. 3), I recognised that the way in which I have constructed my postformal conceptual research has been strongly influenced by several of these research moments. According to Denzin and Lincoln, the modernist and blurred genres moments gave rise to a range of new interpretive methodologies such as “hermeneutics, structuralism, semiotics, phenomenology, cultural studies and feminism” (p. 3). They note also that in the blurred genres moment, critical interpretive theory saw the researcher becoming a bricoleur as the boundaries blurred and intermingled between the humanities and the social sciences, and between text and context. In the overlapping postmodern and postexperimental moments, qualitative researchers embraced the narrative turn and new types of ethnographies. These overlapping and simultaneously operating moments continue to gather strength in order to deal with the methodological backlash of the evidence-based movement. They reflect a strengthening of methodological pluralism in qualitative research— through their “refusal to privilege any method or theory” (Denzin & Lincoln, 2005, p. 3). A recent discussion within sociological research in the UK debates the significance of methodological pluralism for qualitative researchers in the evidence-based research context of the UK, though it is beyond the scope of this research to enter into this debate (May, 2005; Payne, Williams, & Chamberlain, 2004, 2005).
Several theorists and researchers have constructed specific approaches that embrace the notion of methodological pluralism. Three approaches which may have been suitable for this research, include:

- The seven arts of inquiry that have been proposed by curriculum researchers James Henderson and Kathleen Kesson—including techne, poesis, praxis, dialogos, phronesis, polis and theoria (Henderson & Kesson, 2004);
- The eight perspectives in Ken Wilber’s methodological pluralism—including structuralism, phenomenology, hermeneutics, ethnomethodology, empiricism, autopoiesis, systems theory and social autopoiesis (Wilber, 2006);
- Bricolage as developed by Joe Kincheloe—a flexible methodology suited to postformal educational research (Kincheloe, 2001, 2005; Kincheloe & Berry, 2004).

After due consideration of these options theoretical bricolage appeared to be the most suitable overarching methodology for my research, given its flexibility, organic elasticity, creativity and scope. This enabled me to incorporate aspects of the other approaches as appropriate. I engage to some degree with five of Wilber’s eight methods—structuralism, phenomenology, hermeneutics, autopoiesis and systems theory; while not being limited to those. Although I do not foreground the seven arts of inquiry of Henderson and Kesson (2004) I retrospectively examine the breadth of my bricolage by casting them over my research as an additional evaluative lens. On reflection, I find that I intuitively enact each of these modes through the processes that I engage in: techne—through reflecting on and honing the craft of my writing; poesis—through the bringing together of structure, content, and form to create beauty and meaning; praxis—through my critical inquiry; dialogos through the multivocal nature of my narrative; phronesis through the practical wisdom of my intuitive process; polis as public moral inquiry through a normative approach particularly to education; and theoria as enacted through contemplative wisdom (Henderson & Kesson, 2004, pp. 48-62). Arguably there are other broad-spectrum methodological approaches, which may also have been useful.34

34 I wish to acknowledge the transpersonal research approach of William Braud, called integral inquiry (Braud, 1998). While this was a comforting discovery early in my research process, as my process matured I did not find that it met my needs as adequately as the theoretical bricolage, which I have tailored to meet my research needs.
4.1 Theoretical Bricolage

The theoretical bricoleur reads widely and is knowledgeable about the many interpretive paradigms... that can be brought to any particular problem... the researcher as bricoleur-theorist works between and within competing and overlapping perspectives and paradigms (Denzin & Lincoln, 2005, p. 6).

This characterisation by Denzin and Lincoln of the role of the theoretical bricoleur further confirms the alignment of this approach to my use of transdisciplinarity. They attribute the term bricolage to anthropologist, Claude Lévi-Strauss (Denzin & Lincoln, 2005). Kincheloe has furthered bricolage as a postformal methodology to account for complexity, creativity and multidimensionality as research factors (Kincheloe & Berry, 2004). Bricolage is an elastic term that has been used in a variety of settings as a complex, creative, postformal multi-modal methodology for educational research. Moreover, evolutionary theorists have used bricolage as a metaphor for representing evolutionary processes that cannot be explained by reductionism and accident. The tinkering involved in evolutionary bricolage embraces biological principles of self-organisation, emergence and creativity (Bocchi & Ceruti, 2002; Montuori, Combs, & Richards, 2004; Varela, Thompson, & Rosch, 1993). My research process reflects these features, as will be discussed below.

Denzin and Lincoln propose that there are many kinds of bricoleurs, implying that there are also many types of bricolage: methodological, theoretical, interpretive, critical, political and narrative (Denzin & Lincoln, 2005). In this research, which is conceptual research, I primarily use theoretical bricolage as my overall methodological metaphor as this is most aligned with my postformal-integral-planetary philosophy and my transdisciplinary epistemology. However, I do not see Denzin and Lincoln’s (2005) bricolage types as mutually exclusive. I incorporate aspects of interpretive bricolage through my appreciation of the contextualism of my “own personal history, biography, gender” (p. 6) (see Chapter Three, pp. 39-41); of critical bricolage through “stressing the dialectical and hermeneutic nature of interdisciplinary [or rather transdisciplinary] inquiry, knowing that the boundaries that previously separated traditional disciplines no longer hold” (p. 6) (see above); of political bricolage through my recognition of the political implications of scientific and other forms of knowledge and my investment in “a politics of hope” (p. 6) (see Chapter One); and of narrative bricolage in that I accept that “researchers all tell stories about the worlds they have studied” (p. 6) and indeed I foreground the role of narrative
both in my central hermeneutic analysis (Chapter Three, pp. 45-46) and in my accompanying reflective narratives (the Interludes).

From a philosophical perspective, Derrida discussed Lévi-Strauss’ critical and mythopoetic use of bricolage as a means of critical analysis in all discourse. This semiotic nature of bricolage was elaborated by Lévi-Strauss: “The bricoleur works with signs, constructing new arrangements by adopting existing signifieds as signifiers and ‘speaking’ through the medium of things’ - by the choices made from ‘limited possibilities’” (Lévi-Strauss, 1962/1974, pp. 20-21).

Derrida notes that Lévi-Strauss contrasts the bricoleur with the engineer who constructs “the totality of his language, syntax, and lexicon.” Derrida paraphrases Lévi-Strauss’ bricoleur in the following words.

Someone who uses "the means at hand," that is, the instruments ... which are already there, which had not been especially conceived with an eye to the operation for which they are to be used and to which one tries by trial and error to adapt them, not hesitating to change them whenever it appears necessary, or to try several of them at once, even if their form and their origin are heterogenous. (Derrida, 2001, para. 17)

Derrida claims "If one calls bricolage the necessity of borrowing one's concept from the text of a heritage which is more or less coherent or ruined, it must be said that every discourse is bricoleur" (Derrida, 2001, para. 18). In Derrida’s view of Lévi-Strauss’ stance, science and engineering are as dependent on bricolage as mythology and ethnography. This leads into the notion of intertextuality, which is discussed below, under research process. Kincheloe also notes the significant role of intertextuality in bricolage (Kincheloe, 2005).

My choice of theoretic bricolage as overarching methodology honours its semiotic richness and layered possibilities. My bricolage can thus be read at a variety of levels depending on the reader’s interest and level of engagement with the text. At the surface, my bricolage may be read as mere methodological eclecticism. A deeper engagement will observe the emergent evolutionary “tinkering” and progressive recursion of my approach. An even deeper engagement with the explicit intertextuality of my dissertation will reveal support for Derrida’s claim that “every discourse is bricoleur.”

4.2 Features of my Bricolage

Of significance to my research is that Kincheloe’s theoretical and methodological development of bricolage (Kincheloe, 2001, 2005; Kincheloe & Berry, 2004) occurred after his
conceptual work on the notion of post-formal thinking in education (Kincheloe & Steinberg, 1993; Kincheloe, Steinberg, & Hinchey, 1999). His theorising of bricolage builds on Lévi-Strauss’ “understanding of the complexity and unpredictability of the cultural domain” (Kincheloe & Berry, 2004, p. 25). Kincheloe refers to his features of bricolage as a literacy of complexity (Kincheloe & Berry, 2004, pp. 25-27). As noted in the Prologue, complexity is a widely recognised feature of postformal reasoning in adult developmental psychology.

Although Kincheloe has not explicitly developed the theoretical links between his two theories, the following table demonstrates quite a strong interrelationship between Kincheloe’s bricolage methodology and his theory of post-formality (see Table M2). It suggests that Kincheloe’s conceptualisation of bricolage theoretically emerged from his conceptualisation of postformal thinking. However, this table should not be viewed as a formal categorisation of either. My interest in drawing out this relationship is to indicate the coherence between my substantive content (evolution of postformal-integral-planetary consciousness), my pragmatic interest (cultural pedagogical practice) and my methodology (bricolage), via the relationship between Kincheloe’s bricolage as pedagogical method and Kincheloe and Steinberg’s postformal thinking. The information in Table M2 also demonstrates the postformal conceptual development of Kincheloe’s bricolage in contrast to the notion of bricolage as mere eclecticism—mixing quantitative and qualitative methods—within what may be a formal research paradigm.

In spite of the importance of such pluralistic methodologies for more holistic and integrative approaches to complex research, disciplinary specialists may critique such expanded approaches. According to Kincheloe there is a concern among academics that broad attempts to integrate too many areas of knowledge can lead to superficiality and even dilettantism. This is part of the challenge for complex, postformal and pluralistic methodologies. Kathleen Berry warns about the challenges of undertaking postformal research within formal settings.

How does the bricoleur avoid slippage into formalist discourses to describe and interpret the narratives, data, collected knowledge by self and other researchers? How and why can the bricoleur negotiate the borders between formalist and postformalist discourses that recognize the contradictions between and the limitations of both yet produce new insights, social values, structuring devices, and actions? (Kincheloe & Berry, 2004, p. 136)

35 Integral transformative education theorist, Jorge Ferrer, has used the terms bricolage and eclecticism interchangeably (Ferrer, Romero, & Albareda, 2005). I draw distinctions between them.
Table M2: A Comparison of Bricolage and Post-formal Thinking in Kincheloe’s Research

<table>
<thead>
<tr>
<th>Post-formal Thinking (Kincheloe &amp; Steinberg, 1999, pp. 62-81)</th>
<th>Bricolage (Kincheloe &amp; Berry, 2004, pp. 25-29)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Etymology</strong></td>
<td></td>
</tr>
<tr>
<td>The origins of knowledge; thinking about thinking and imagination; problem detection</td>
<td>Multiple epistemologies; interpretive aspect of knowledge; discursive construction</td>
</tr>
<tr>
<td><strong>Pattern</strong></td>
<td></td>
</tr>
<tr>
<td>Deep patterns and structures; metaphorical cognition; uncovering connection between mind and ecosystem</td>
<td>Explicate/implicate orders of reality; fictive dimension of research; living process in which cultural entities are situated</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td></td>
</tr>
<tr>
<td>Deconstruction—the world as text; logic-emotion links; non-linear holism</td>
<td>Intertextuality; ontology of relationships and connections; the utility of feedback loops</td>
</tr>
<tr>
<td><strong>Contextualisation</strong></td>
<td></td>
</tr>
<tr>
<td>Attending to the contextual setting; subtle interaction of particularity and generalization; uncovering the role of power.</td>
<td>Intersecting contexts; contextual specificities and questioning of universalism; cultural assumptions, power and knowledge.</td>
</tr>
</tbody>
</table>

Kincheloe suggests that to overcome the possibility of superficiality in interdisciplinary research, there needs to be a dialectical relationship between disciplinarity and interdisciplinarity (Kincheloe, 2001, p. 683). Another perspective that could be taken is to use the metaphor of varying the focal depth of one’s research (see Chapter Three, pp. 24-25).

Navigating through the midst of this complex and contested research context I weave my hermeneutic text.36 The actual methods I emphasise in my theoretic bricolage include hermeneutics, futures methods and postmodern approaches such as archaeology/genealogy. My process as bricoleur reveals intertextuality and reflexivity, intuition and emergence.

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36 "‘Text’ is derived from the Latin ‘texere’ which means ‘to weave’, or ‘textum’, meaning ‘web’ or ‘fabric.’ Web implies that there is no root, no center, no origin.” (Cobusson, 2002).
4.2.1 Integral Hermeneutics

Hermes ... remains a God of roads, crossroads, thresholds, boundaries. ... the patron God of professional “boundary-crossers”... And it would seem to be the essence of hermeneutics to be liminal... a mediation between worlds. And in the strongest instances, Hermes' message is "world-shaking": it brings, as Heidegger says, "a transformation of thinking." (Palmer, 2001, para. 21)

Modern hermeneutics is arguably a complex, postformal methodology. Firstly, hermeneutics is about interpretation and understanding. Secondly, there are multiple types of hermeneutics, which have developed in some kind of historical sequence (Palmer, 1969). I briefly discuss the varieties of hermeneutics that I primarily draw on (empathic, phenomenological, cultural and critical). I then demonstrate how these apparently disparate approaches can be incorporated into an integral hermeneutic approach to analysis, based on Ricoeur’s reconciliation of the Gadamer-Habermas debate (Paul Ricoeur, 1986), and with reference to Wilber’s four-quadrants model (Wilber, 2001) (see Chapter Three, pp 36-37).

Hermeneutics scholar, Richard Palmer refers to three major directions of meaning that can be given to hermeneutics as interpretation: to say, to explain and to translate (Palmer, 1969).

To say refers to the “announcing function of Hermes” (p. 15). Palmer refers to the process whereby language and literature have lost much of their power over time as they developed from primarily oral processes to written processes. He claims “theology and literary interpretation must retransform writing into speech” (p. 20). This echoes Gebser and Steiner in relation to the evolution of language and writing as part of evolution of consciousness (see Chapter Three, particularly Appendix C: Literacy Unveiled).

To explain refers to a hermeneutic process of interpretation, which goes beyond the pure expression in language to engage the rational thinking processes, particularly as found in philosophical hermeneutics. Palmer claims “the function of explanatory interpretation ... [is] an effort to lay the foundations in 'pre-understanding' for an understanding of the text” (p. 25). This is a key function of the abstract— and/or introduction— in academic writing. When the explanatory process enables a pre-understanding of the text, what Gadamer calls a fusion of horizons occurs between the reader’s horizon of understanding and the horizon of understanding that emerges from the text. This is at the heart of Gadamer’s philosophical hermeneutics (Gadamer, 1986b). My Prologue provides a pre-understanding of my dissertation.

To translate refers not just to translation from a foreign language but translation of any text. Palmer (1969) suggests that to interpret a historical text— even from 100 years ago— what is
required is “an effort of historical imagination and ‘translation’” (p. 31). This applies doubly in my research in regard to my interpretations of Steiner and Gebser. The first translation of their works from German into English was already completed. The second layer of translation involving sensitivity to historico-cultural contexts also applies to my interpretation of Wilber’s writing as it does to all hermeneutic interpretation. To assist in understanding my process of translation I have discussed hermeneutic context in Chapter Three (pp. 37-41).

The development of hermeneutics can be viewed within a historical context. Palmer (1969) claims that hermeneutics has been defined in at least six fairly distinct ways over the last three to four centuries. The first four are: biblical hermeneutics, or exegesis; philological hermeneutics influenced by Spinoza and Lessing; the romantic [empathic] hermeneutics of Schleiermacher; and the Geisteswissenschaften37 hermeneutics of Dilthey, who formalised hermeneutics as an authentically humanistic methodology. Palmer’s fifth category existential—or philosophical—hermeneutics includes the work of philosophers such as Husserl, Heidegger and Gadamer. His sixth category refers to the cultural hermeneutics of Paul Ricoeur. In addition to Palmer’s six hermeneutic types, there is a seventh—critical hermeneutics (Habermas, 1986).

There has been much debate in recent decades about the different versions of hermeneutics discussed above. The most notable debate of the late 20th century was that between Gadamer’s ontological/philosophical hermeneutics—grounded in the Romantic tradition—with its focus on the historico-cultural context of tradition (Gadamer, 1986a), and Habermas’ critique of ideology, which Ricoeur links with the rationalist stream coming from the European Enlightenment—referring to it as a hermeneutics of suspicion (Paul Ricoeur, 1986). Ricoeur has undertaken a complex reconciliation between these two opposing approaches. In the process of this analysis and synthesis, Ricoeur has developed an integrative approach, which identifies four potential components to a hermeneutic analysis. This is discussed further in Chapter Three, Part 1, (pp. 36-37). Recently, Ken Wilber has taken a similarly comprehensive view of the different streams and influences playing into hermeneutics by analysing it using his Integral Operating System (Wilber, 2001, 2004). As a result Wilber (2001) has developed what he calls integral hermeneutics (p. 88).

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37 Geisteswissenschaften is a German term for the social sciences. It can also be translated as sciences of mind or spiritual sciences. Steiner noted Dilthey’s attempts to develop authentic human sciences in which “a science of the spirit appears as a possibility beside the science of nature (Steiner, 1901/1973, p. 434). Dilthey’s hermeneutics theory was a step in this direction. Steiner also distinguished between Dilthey’s spiritual science, which referred to the sum total of human culture [JG: rather like Popper’s World 3] and his own conception of spiritual science, which went beyond this.
My approach to hermeneutic analysis in this research is influenced by the integral approaches of Ricoeur (1986) and Wilber (2001). I have undertaken a similar integration in my hermeneutic analysis of the evolutionary writings of Steiner and Wilber in the light of Gebser’s structures of consciousness in Chapter Three (pp. 36-37). I integrate several of the hermeneutic methods (empathic/romantic; phenomenological/textual; philosophical/cultural; and critical/ideological).

The autonomy of the text with respect to the original intent of the author

Ricoeur (1986) refers to “the autonomy of the text with respect to the original intent of the author” (p. 328), which Wilber calls intentionalidad (Upper Left). In this regard I have drawn primarily from the empathic/romantic\(^{39}\) hermeneutics of Schleiermacher and Dilthey, which sought to uncover the original intent of the author. Since my integral hermeneutic method weighs down in favour of the empathic/romantic approach, a brief further note on this approach is appropriate. One of the styles of hermeneutics created by the German Romantic philosophers, Friedrich Schlegel and Novalis,\(^{40}\) was hermeneutic fragments (Gillies, 1997). Their deliberate use of poetic, literary and philosophic fragments foreshadowed aspects of postmodern thinking, Gestalt psychology, and even postformal-integral thinking, almost 200 years before the term integral was used to reconstruct what had become divided by an overextended rationality. According to Steven Gillies, Schlegel originally used fragments to “approach discourse as process” in which the reader is required to actively engage in a reconstruction of the whole from the fragments (Gillies, 1997). Gillies summarised their view: “Since all existence, all thoughts and actions, even life and death, are interconnected within a totality that can never be conceived of as such, the way fragments split apart existence actually reveals how interconnected everything is” (Gillies, 1997, p. 2 of 7). My approach\(^{41}\) engages the creative use of fragments to stimulate hermeneutic activity in the reader in honour of this philosophical initiative of Novalis and Schlegel (see also Fragments of a Postmodern Turn, below).

Schleiermacher was the first to systematise hermeneutics as an academic field concerned with “the study of understanding itself” (p. 40). Philosopher Feorello Demeterio III discusses

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\(^{38}\) This organization is a variation of Palmer’s historical arrangement.

\(^{39}\) Palmer (1969) called this empathic/romantic hermeneutics scientific hermeneutics, noting however that scientific in this context referred to “the ‘science’ of linguistic understanding” (p. 40).

\(^{40}\) Novalis was the pseudonym of German romantic philosopher Georg Philipp Friedrich von Hardenberg.

\(^{41}\) As it is impossible to present the whole of Steiner’s, Gebser’s or Wilber’s work I carefully choose relevant fragments that point to the whole corpus of their views.
Schleiermacher’s apparently radical claim that it is possible for an interpreter to actually understand the author’s work even better than they do themselves. Demeterio III (2001) summarised Schleiermacher’s systematic approach as follows.

Whenever a text is produced, its author follows a set of unconscious, and semiconscious rules and conventions of his own language, time and culture. The reader, who most often belongs to a different language, time and culture... [reconstructs] these unconscious and semiconscious rules and conventions and [brings] them into full consciousness first before undertaking any interpretive move. (p. 1 of 5)

Demeterio III claims that this enables the interpreter to have a higher level of insight into the text than the author him/herself.

The autonomy of the text [in and of itself]

Regarding Ricoeur’s “autonomy of the text”— which Wilber calls formalism (Upper Right), I have payed close attention in a Heideggerian sense to the phenomenology of the text itself. Martin Heidegger built on the phenomenological method of his mentor Edmund Husserl. This has been demonstrated in my work by the extensive quoting of the original texts of Steiner, Gebser, Wilber and other authors. Chapter Three includes substantial textual analysis of their writings, particularly where I specifically analyse and evaluate their language (Part 9, pp. 134-140). However, I do not rely only on the particular text in isolation from considering the other contextual components. Indeed, I view the text as intimately related to its broader context, both historically, and dialogically, hence my integral hermeneutic approach. This text-contextualism is further discussed below under Intertextuality. Palmer (2001) builds on Heidegger’s textual phenomenology: “To exist hermeneutically as a human being is to exist intertextually” (para. 9).

Autonomy of the text with respect to the original addressee

What Ricoeur calls “autonomy of the text with respect to the original addressee,” Wilber refers to as historicity (Lower Left). It relates to Gadamer’s philosophical hermeneutics, which pays particular attention to tradition, historicity and cultural context of both writer and interpreter. Gadamer (1986b) also underwent what he called a “confrontation with the French continuation of Heidegger’s thought” (p. 381) via Derrida, leading to his incorporation of aspects of the linguistic turn into his philosophical hermeneutics. Gadamer (1986b) remained committed to an ontological dimension to reality— to the notion of the Being of “Logos and its metaphysical implications” (p.
Ricoeur’s cultural hermeneutics goes back to the original meaning of textual interpretation. He notes that all symbolic texts can have multiple meanings and identifies two radically different approaches to their interpretation: “demythologising” [which] deals lovingly with the symbol in an effort to recover a hidden meaning in it” and demystification or iconoclasm, which “destroys masks and illusions” regarding the symbol as “the representation of a false reality” (Palmer, 1969, p. 44).

Autonomy of the text with respect to the sociological conditions of the text

Ricoeur refers to the “autonomy of the text with respect to the cultural and sociological conditions of the text.” This appears to be similar to Wilber’s contextualism (Lower Right). In regard to both of these socio-cultural contextual dimensions, I have provided substantial context and potential biases for Steiner, Gebser, Wilber and myself, in the methodological sub-section of Chapter Three, Part 1. Habermas’ (1986) critical hermeneutics—often referred to as a critique of ideology—was largely developed after the writing of Palmer’s (1969) seminal work. One of the hallmarks of Habermas’ critical hermeneutics is the identification of power relations—which was forged through his relationship to the critical social theory of the Frankfurt School. In contrast to Gadamer’s ontological position on the Being of language, Habermas (1986) points to language as also being “a medium of domination and social power; it serves to legitimate relations of organized force” (p. 272). He claims that to the extent that those using language do not articulate the power relations residing within it, “language is also ideological” (p. 272).

In summary, I develop an integral hermeneutic process drawing on the above perspectives. My own original intent was to empathically uncover the original intent of Steiner, Gebser and Wilber—to de-mythologise their writings in Ricoeur’s sense of dealing lovingly with their texts “in an effort to recover meaning hidden in it” (Palmer, 1969, p. 44). This first required identification, and then bracketing, of the sociological and historico-cultural influences and biases that I could recognize, and a sensitive feeling into what I intuited was beyond the surface of their words to the underlying meaning. I also attempted to keep in mind the polysemous nature of words revealed by deconstruction (Derrida, 2001) and intertextuality (Kristeva, 1986).

### 4.2.2 Futures Studies

As mentioned in the Prologue, a futures-oriented lens informs my research. Consequently, the concepts and methods of futures thinking have been very significant influences
on my thinking before and throughout this research. It would be redundant to discuss in detail here as futures studies is introduced and discussed in Chapter One (see also Appendix 4). The major futures methodologies that I have engaged both explicitly and implicitly are macrohistory (Galtung & Inayatullah, 1998) and causal layered analysis (CLA) (Inayatullah, 2000). The primary process of CLA is to depth dive beneath various levels or layers of phenomena and social construction (the litany, the social causes, the underlying worldview) to the deep story, myth, metaphor that is embedded in the worldview that drives the policies and the discourses of our lives. Inayatullah developed CLA and has referred to it as poststructuralism as method (Inayatullah, 2004). This methodological approach has provided some valuable insights into the issues underlying youth suicide (Gidley, 2005) (see Chapter One). In a broad sense, the whole narrative of this dissertation is a causal layered analysis of the evolution of consciousness. The layered, poststructuralist, futures sensibility of CLA infuses the narrative.

Secondly, the concept of macrohistory also infuses my research. This was a perspective held implicitly by Steiner and to a lesser extent Gebser, and is also embedded in Wilber’s and other evolution of consciousness discourses, though not necessarily explicitly. It has been developed over the last decade as an explicit futures methodology to move thinking beyond the prevalence of political and economic short-termism and towards long-views of time (Galtung & Inayatullah, 1998). My use of this perspective is discussed in Chapter Three, Part 2, (pp. 45-46, 58, 131).

4.2.3. Fragments of a Postmodern Turn

The narrative projectory implicates and illuminates not only the present but also the future. The sweep of the narrative seems to bring the future more luminously present and possible because narratives inevitably point forward. Fueled by the dynamic of narrative, they inevitably move forward bearing insight on present and future. (Braud & Anderson, 1998, p. 23)

These words by transpersonal researcher, Braud, demonstrate the inherent connection between my futures orientation and my use of narrative, which is also influenced by the postmodern, postexperimental research moment that embraces the narrative turn (Denzin & Lincoln, 2005). My approach to narrative draws strength from Lyotard’s notion of petit-recits as an alternative to the grand narrative (Lyotard, 2004). Chapter Three was also particularly influenced by the notion of a narrative universe (Bocchi & Ceruti, 2002). Further discussion of
my use of narrative can be found in Chapter Three (pp. 48-50 & 130-131). My reconstructed evolutionary theoretic narrative could be viewed as a type of noospheric ethnography.42

Although the comments to follow here are rather more in relation to philosophy than methodology, these philosophical fragments have inspired my work in such a way that they are embedded in my overall approach to methodology. It is also a feature of Kincheloe’s conceptualisation of bricolage that it includes philosophy, history and other perspectives that are outside a narrow definition of method. In the philosophical section above, I have indicated a number of changes that have occurred as part of the shift from modernism to postmodernism. In the methodology section, I have referred to the numerous research moments that have developed in North American qualitative research. As a researcher of the evolution of consciousness, I am impelled to be cognisant of all these developments and to integrate them where appropriate into my research—if it is to be adequate to my task. Some risks of such an inclusive research palette have been identified by such terms as destructuring eclecticism, hodge podge, dilletantism and even chaos. However, in an age of hyperspecialisation and academic isolationism the risk of foreclosing on maximum inclusiveness was, to my judgement, a greater error. So at the risk of spreading the cloak of my bricolage too thinly, I make brief reference to several other, particularly postmodern, influences on my research.

I have been influenced in my framing of perspectives by some aspects of critical social theory (Habermas, 1979) and drawn from several critical and postcolonial researchers, particularly in education theory (Giroux, 1992; Jain, Miller, & Jain, 2001; McLaren & Kincheloe, 2007; Milojevic, 2005; Steinberg & Kincheloe, 2004). I have been influenced by the rigour of Foucault’s critical scholarship (Foucault, 2005) and particularly by those features of his archaeology, which he refers to as savoir and connaissance (Schurich & McKenzie, 2005). They provided important new philosophical concepts for ideas I already held intuitively. Also Foucault’s and Nietzsche’s critiques of history and notions of genealogy have been formative as I rethought macro-time periods. My understanding of the linguistic turn, deconstruction and poststructuralism, though limited, has been influenced by reading Derrida’s actual text (Derrida, 1989, 1995, 2001) and in particular, by Benedikter’s interpretation of the late works of the French postmodern philosophers (Benedikter, 2005). Although my rediscovery of French philosophy is relatively recent, I have been by encouraged in my postformal-integral writing endeavours by Julia Kristeva’s intertextuality and Hélène Cixous’ embodied writing (see below and Interlude

42 As far as I know I have coined the term noospheric ethnography.
Six). I have also been inspired by Deleuze’s notion of conceptual lines of flight (St. Pierre, 2004), and the creative philosophy of Deleuze and Guattari, particularly de-territorialisation. Edgar Morin is also a significant philosophical influence as discussed in several other sections. His complex conceptualisation is incorporated into my use of hyphenation of terms and like Deleuze, his integration of poetic and philosophical writing inspires my style of writing.

Returning to Wilber’s integral methodological pluralism, as mentioned earlier, I also engaged in some way with structuralism, phenomenology, hermeneutics, autopoiesis and systems theory. Clearly, hermeneutics has already been addressed. Briefly, the methods of structuralism underlie both the developmental approaches of the psychologists researching postformal thinking, and Steiner’s, Gebser’s and Wilber’s approaches to stages/structures of consciousness. The phenomenology of the text has been adequately considered particularly throughout Chapter Three. Also the underlying Goethean phenomenological sensibility in my research gaze was highlighted in the Prologue. Autopoiesis has emerged within my own process and will be discussed below under research as process. The perspectives of systems theory have subtly influenced my understanding primarily through my engagement with the integral theory of Ervin László (2006, 2007) though I do not claim systems theory as a major influence.

4.2.4 Further Methodological Considerations

In addition to the above, several other methodological issues need to be addressed because of the wide scope and complexity of my research.

- My rationale for selecting Steiner, Gebser and Wilber as major theorists of the evolution of consciousness is addressed in detail in Chapter Three, pages 12-14;
- Because of the vastness of the potential discourse, criteria for exclusion and inclusion of other research is discussed in Chapter Three, pages 27-28;
- The methodological approaches of Steiner, Gebser and Wilber are discussed in some detail in Chapter Three, pages 29-34.

5. The Return of the Subject

Subjectivity reappears ... as a factor in the discourses which needs to be taken into account. Instead of subjectivity being that which explains what occurs, it is that which gets explained in so far as it results from social processes. (Hoy, 1991, p. 278)
Philosopher, David Couzens Hoy, studied the history of consciousness from Kant and Hegel to Derrida and Foucault and notes the return of the subject in contemporary philosophical discourse. As an outcome of the aim of the epistemology of formal scientific positivism to arrive at objective knowledge, it effectively eliminated the subjectivity of the researcher—the subject. However, as this research shows in Chapter Three, the emergence of postformal-integral-planetary consciousness has spawned diverse philosophical perspectives that critique and counter the objectivist paradigm of scientific positivism. Montuori points out “Humberto Maturana reminds us that everything that is said is said by somebody” (Montuori, n. d., p. 9 of 14).

The philosophical resurgence of interest in subjectivity, has co-arisen with the emergence of transpersonal psychology (Zahavi, 2004) and feminist literature, perhaps stimulated by Foucault’s seminal lectures on the Hermeneutics of the Subject (Foucault, 1994, 2005). While critics of postmodernity claim that notions of multiplicity in subjectivity can debilitate action, this is countered by radical subjectivity in a recent feminist approach to resistance (Pludwin, 2008).

Most contemporary post-positivist perspectives are more inclusive than a one-sided romanticism that privileges the subject at the expense of objectivity. There is an emerging interest in the dialectical notion of subjective-objective ways of understanding reality (Benedikter, 2005; Kegan, 1994, 2002). Benedikter identifies four significant postmodern philosophers—Derrida, Lyotard, Foucault and Feyerabend—who demonstrated the beginnings of a “subjective-objective” or “integrative” philosophical paradigm in their last years (Benedikter, 2005). Steiner foreshadowed subjective-objective thinking over a century ago, in his Philosophy of Freedom (Steiner, 1894/1964).

5.1 Intertextuality and Reflexivity

The word, directed towards its object, enters a dialogically agitated and tension-filled environment of alien words, value-judgements and accents, and weaves in and out of complex interrelationships, merges with some, recoils from others, intersects with a third group: and all this may crucially shape discourse, may leave a trace in all its semantic layers, may complicate its expression and influence its entire stylistic profile.” (Bakhtin, 1981: 276), cited in (Allen, 2000, p. 29)

[Intertextuality is]... a mosaic of quotations; any text is the absorption and transformation of another. The notion of intertextuality replaces that of intersubjectivity, and poetic language is read as at least double. (Kristeva cited in (Orr, 2003, p. 107))
One of the ways that the subjective-objective approach to knowledge can play itself out is through intertextuality. Although the term intertextuality is often associated with the linguistic turn pioneered by the work of de Saussure, it was coined by Bulgarian-French philosopher, Julia Kristeva, in France in the late 1960s (Orr, 2003). Since my use of intertextuality is informed by Kristeva’s contribution, I will briefly summarise her contribution and then clarify some of the distinctions between her theory and others. Professor of modern French studies, Mary Orr (2003), notes that Kristeva’s phrase “mosaic of quotations” has often been cited and used as evidence of “the imprecision” of her theory (p. 21). However, there is more to Kristeva’s theory than meets the eye of the critic.

Kristeva introduced to the French-speaking world, the work of the Russian literary theorist Mikhail Bakhtin, whose pioneering ideas laid a foundation for intertextuality (Allen, 2000). Orr claims that Kristeva—a linguist and translator—made a significant original contribution to the theory through “her combinatorial exploration of Russian formalist and structuralist ideas (not least Bakhtin’s), and the grafting of these with Saussurian linguistics and the Barthes/Teil Qel politics of post-Marxist materialism to envisage a theory of intersubjectivity as text” (Orr, 2003, p. 24). Kristeva incorporated into linguistics Bakhtin’s terms, dialogism, carnival, polyphony and heteroglossia, thus revitalizing, decentering and pluralizing the structuralism of the day. Perhaps her most significant contribution to theorising intertextuality was the way she extended Bakhtin’s notion of two textual axes: dialogue and ambivalence. She created her own theory of intertextuality, where “horizontal axis (subject-addresssee) and vertical axis (text-context) coincide” within the textual space (Allen, 2000, p. 39). Bakhtin’s vision of human society, “that the dialogic, heteroglot aspects of language are essentially threatening to any unitary, authoritarian and hierarchical conception of society” stands behind Kristeva’s concept of intersexuality and she incorporated this vision “into the apparently methodologically rigorous and systematic field of structuralist theory” (Allen, 2000, p. 30).

One of her major interests was poetic language, which included her dynamic conception of the “‘literary word’ as an intersection of textual surfaces rather than a point (a fixed meaning), as a dialogue among several writings: that of the writer, the addressee... and the contemporary or earlier cultural context” (Kristeva, cited in Allen, 2000, p. 38). Like Kristeva, Lévi-Strauss also saw artistic creation as in part a dialogue with the materials (Chandler, 2007). Kristeva’s

43 Bakhtin’s rich semiotic theory included concepts such as polyphony, double-voiced discourse, dialogism and heteroglossia to name a few (Allen, 2000).
linguistic theorising reflects both the artistry of the mosaic and the rigour of postformal logics, not the least demonstrating postformal construct-awareness (Cook-Greuter, 2000). Kristeva’s intertextuality also includes several other distinct features.

Firstly, Kristeva’s intertextuality focuses on “interconnection of ideas where previously none existed” (Orr, 2003, p. 24), in contrast with other forms of intertextuality, which “disrupt (Bloom, Derrida)” (ibid., p. 106). Secondly, unlike the Barthesian notion of the “death of the author” (Orr, 2003, p. 22), “both Bakhtin and Kristeva honour the author as funnel, so that textuality enters into dialogue with other determining elements” (ibid., p. 26). Thirdly, while some forms of postmodern intertextuality set themselves “against origins, lineages, inheritance”, Kristeva’s intertextuality both honours its lineage—in Bakhtin and others—while recognising their intertextual multiplicity. Orr (2003) describes Kristeva’s intertextuality as: “comparative critical plaiting and braiding [which] … cannot be monodirectional, monologic, monochrome or monolingual” (p. 91).

In spite of these major theoretic contributions, Orr notes that Kristeva’s seminal philosophical writings were consistently marginalised within French philosophical circles—and eclipsed by others such as Barthes and Genette. This appears to have resulted from several factors, including: poor translation of her writing, the lack of women philosopher-forebears, and the presciently interdisciplinary nature of her work, which was not at the time regarded as pure philosophy. Orr goes as far as to suggest plagiarism of Kristeva by Barthes. Orr notes that Barthes “provided the entry for ‘Texte (théorie du)” in the Encyclopédie universalis in 1973 [which included] the unmistakable echoes and reworkings of Kristeva’s phrases, even plagiarisms if one has prior access to Semeiotike” (p. 33). By contrast, Orr claims that Kristeva, whose work was infused by the creative literary spirit of Bakhtin, enacted “scrupulousness (unlike Barthes or Derrida for example) in citing or referencing ideas” and interconnections (Orr, 2003, p. 26).

Clearly from some views of postmodern intertextuality all text is intertextual and thus does not need to be identified as such. However, my intention here is to highlight particular features of my textual production that echo the creativity and rigour of Kristeva’s poststructuralist intertextual theory. Notably, my text is a conscious, intertextual, mosaic of quotations where I

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44 Orr (2003) notes in particular here Harold Bloom’s “anxiety of influence” as a typically American reaction against the “long tradition of influence in European high-cultural forms” (p. 62).

45 Orr (2003) notes that Kristeva’s enormous philosophical “contribution (via Semeiotike) to intertextuality’s wider theoretical contexts in linguistics, poetics, psychoanalysis, comparative religion, and philosophy of language has always been perceived derivatively, and differently to theirs” (p. 23).
explicitly interweave the texts of Steiner, Gebser and Wilber as an echo of Kristeva's comparative critical “plaiting and braiding of texts”. My work also emphasizes the “interconnection of ideas where previously none existed”, through my critical comparison of these three theorists. My intertextuality, like that of Bakhtin and Kristeva, scrupulously honours the genealogical heritage of the ideas I interweave, while recognizing the multiplicity of lineages that constitute them. As author, I also take responsibility for my own agency and contribution to the creative and reconstructive role of my intertextual production through my participatory gaze.

I also utilize specific techniques to draw attention to the intertextual texture of my text by: referring to my major narrative as a tapestry (Chapter Three, Part 2), by multi-layered reflexive commentary, and by enacting copious footnoting.

My complex intertextuality utilises three distinct types of texts: 1) the five chapters/publications, which develop my main conceptual contributions, reflect my academic multivocality, in that each uses a subtly different voice depending on the particular academic readership context; 2) the Prologue, Metologue and Epilogue anchor my text in an academic discourse suitable for a doctoral dissertation; and 3) the reflexive narratival thread of Prelude, Interludes and Coda are a means of reflectively interconnecting the threads of my conceptual text horizontally, through a dialogue with my readers, and simultaneously interconnecting my text vertically, through reflecting on the influence of the broader academic context.

The significance of the reflexivity of the Interludes will now be elaborated. Arising from both the philosophical reconsideration of subjectivity and the development of intertextuality as a linguistic and philosophical method, there has also been a growing enactment of the subjective—the personal, the self—through the process of narrative, journaling and autobiography. Personal narrative in these forms can be re-valued as the first-person perspective in integral-postformal, academic writing. While this could fall into narcissistic self-absorption, it could also be regarded as a postformal-integral writing genre if it is held in a dialectical relationship with the philosophical-theoretic-conceptual pole. It has been observed that “Kristeva characterised her later work as a defiance of limitation ... by the combination in the text of autobiography and theory” (Holmes, 1998, p. 87). Morin also enacts journaling as a way of demonstrating the full-bodied integrality of his living philosophy. Montuori characterises Morin’s journals as a

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46 These could also be called paratexts or forms of intratextuality. A plethora of new forms of intertextuality has been developed by Gerard Genette, such as: paratextuality, architextuality, metatextuality, hypotextuality and hypertextuality (Chandler, 2007). However, it is beyond the scope of this dissertation to enter fully into the various taxonomies used by different branches of intertextuality theory.
significant and timely philosophical contribution by providing an example of “embodied” inquiry and personal reflection” (Montuori, n. d., p. 9 of 14). It is notable that both Steiner and Wilber have written autobiographical material. Steiner in a rather standard manner (Steiner, 1925/1928) and Wilber by way of a daily personal journal for one year (Wilber, 2000b). It is in this context of embodied philosophical inquiry—where the researcher as subject is in a participatory relationship with the object of research—that I locate the reflective narratives (the Interludes) that thread throughout my dissertation. This additional layer of intertextuality models a postformal academic approach that facilitates movement toward subjective-objective knowledge development.

5.2 Research Process: Living Thinking <-> Intuition <-> Emergence

The living human being ... demands a living kind of thinking ... You must get your head so strong again that it can stand not only logical, abstract thinking, but even living thinking. You must not immediately get a buzzing head when it is a matter of thinking in a living way... pure intellectualism had dead thinking. The purpose of this dead thinking was the materialistic education of the West. (Steiner, 1967, Chapter III, para. 16)

Arguably, the resuscitation of education will require a revival of living thinking in educational philosophy (see Chapter Five). With regard to my research process, the role of imaginative/living thinking is significant—as are the notions of intuition and emergence. Before discussing the marginalisation of intuition as a research method over the past century, I seek to uncover the potential interrelationships among intuition, living thinking and emergence. I propose that a noospheric symbiosis between intuition and imaginative/living thinking leads to the organically emergent or autopoietic nature of my dissertation (see Prologue, Table P3: Organically Emergent Dissertation Structure). A full elaboration of these issues is beyond the scope of this project, so my comments are to be regarded as pointers to further research. This section briefly traces two notions—living thinking and intuition—as two minor, yet parallel, threads in the evolution of consciousness literature that have been significantly underappreciated. I theoretically link them through a furthering of the notion of emergence beyond any territorial claims of the biological sciences.

5.2.1 Living Thinking in Lebensphilosophie

The turn of the 20th century was also a time when several philosophers, particularly in Europe, were moving beyond mechanistic metaphors to organic metaphors of thinking—known
in German as Lebensphilosophie—or life-philosophy. This period was punctuated by Eduard Suess’ notion of the biosphere; Bergson’s élan vital; Dilthey’s life-nexus;[^47] Steiner’s notion of living thinking and Whitehead’s process philosophy (see earlier section, 2.1 Beyond Boundaries and Territories: Is Philosophy Evolving?). The genealogical lineages and linkages among these thinkers is complex and beyond the scope of this work to fully explore. Steiner honoured the influence of Goethe’s metamorphosis and Schelling’s naturephilosophie and intellectual imagination in his notions of organic/living thinking (Steiner, 1901/1973). Schelling’s philosophical integration of spirit, nature and intellectual imagination had a significant philosophical influence on Steiner and Wilber, and also on both deconstructive and reconstructive streams of postmodern philosophy (Gare, 2002). However, the dominant mechanistic models of science led to the sidelineing of this small philosophical flourishing of organic/process/living thinking. Steiner noted in 1922:

> Present-day thinking is directed essentially to the dead world... The intellectualistic thinking current since the middle of the fifteenth century [is] a corpse... There is a real tendency today to embalm thinking so that it becomes pedantically logical, without a single spark of fiery life. (Steiner, 1956, Lecture V, para. 9, 25)

Whitehead wrote a few years earlier on the problems of inert ideas in education. He noted: “we must beware of what I will call ‘iner ideas’... ideas that are merely received into the mind without being utilized ... or thrown into fresh combination... Education with inert ideas is not only useless: it is ... harmful” (Whitehead, 1916/1967, p.1). Steiner’s and Whitehead’s ideas are aligned to Lyotard’s movement beyong the “already-said” (Lyotard, 2004) and Deleuze and Guattari’s living philosophical concepts (Deleuze & Guattari, 1994).

### 5.2.1 Intuition as Method and Process

In parallel with these developments, Henri Bergson was systematically formulating his theory of intuition as method. Deleuze regarded Bergson as a significant contributor to what he called the “counter-history” of philosophy. He undertook a study of Bergson’s intuition as method in an attempt to resurrect philosophical interest in the lesser-known aspects of Bergson’s efforts (Deleuze, 1988/2006, p. 7). Deleuze noted: “Intuition is the method of Bergsonism. Intuition is neither a feeling, an inspiration, nor a disorderly sympathy, but a fully developed

[^47]: Dilthey’s notion of life-nexus appears to have informed Husserl’s 1949 notion of lifeworld.
[^48]: Schelling was himself influenced by the philosophical imagination of German mystic Jacob Boehme (Steiner, 1901/1973, p. 158), whose cosmology has also influenced Nicolescu’s transdisciplinarity (Nicolescu, 1991)
method, one of the most fully developed methods in philosophy” (Deleuze, 1988/2006, p. 13). During the same broad period, from 1904, Steiner wrote extensively on the significance of the cultivation of imagination, inspiration and intuition for the development of higher cognitive faculties. He developed a comprehensive and systematic methodology to assist others to cultivate these facets of consciousness and also diligently practiced these methods, which were at the heart of his spiritual research (Steiner, 1904/1993, 1905/1981) (see also Chapter Three, p. 135). He specifically linked imagination with the cultivation of living thinking, regarded the latter as a foundation for the rigorous development of intuition (Steiner, 1904/1993).

However, these philosophical contributions to an understanding of the role of intuition were also marginalised as part of the positivist striving for objectivity through elimination of the researcher as subject. Over recent decades, with the return of the subject, several researchers have attempted to establish intuition as a legitimate research method. It is beyond the scope of this research to discuss these developments in detail, however, I wish to point to the major theorists who have discussed the importance of intuition or developed methods for its engagement. Several significant central-eastern European thinkers over the last century have highlighted the significance of intuition as a way of knowing, including Russian-American sociologist, Pitirim Sorokin49 (1941/1992) and Hungarian philosopher of science, M ichael Polanyi. Notions of the intuitive, tacit— and personal— component of all knowledge, including that purporting to be objective and scientific, was given momentum by Polanyi’s (1958) seminal text. More recently, Hungarian systems scientist L ászl ó emphasized the role of intuition in the thinking of all the great scientists (L ászl ó, 2007) (see also Chapter Three, pp. 18, 41). In a contemporary scientific research project with potentially profound implications for describing the emergence of global consciousness, Roger Nelson50 refers to the circular feedback loop between the creative, intuitive process that guides his questions and his empirical research (Nelson, 2005). While Gebser and Wilber do not explicitly speak of any tacit intuitive side to their research methods, Steiner, like Bergson, actually foregrounded intuition as one of his major research methodologies.

49 Sorokin was a student of Sri Aurobindo and drew strongly on the latter’s writings.
50 Roger Nelson, Ph.D., was the architect of the Global Consciousness Project, in Princeton University’s Engineering Anomalies Research lab from 1980 to 2002, seeking to capture signals from the “global mind,” like a world-scale EEG... designed to map our collective “brainwaves.”
http://www.consciouscreativity.com/1/index.php?option=content&task=view&id=31
5.2.3 Living Thinking and Intuition: Towards Noospheric Emergence

It is unscientific to accept the concept of a biosphere and to reject the concept of a noosphere. The noosphere is as much a part of earth as any other sphere ... by virtue of its being the cause of most ecological woes and the seat of all ecological action, the noosphere should, from the ecologist's standpoint, be the most crucial layer ... obviously noospheric pollution is the source of all pollution. (Masani, 1995, § 2, para. 5)

While the biosphere is now a well-recognised domain for the attention of science, the noosphere is not well recognised as a domain independent from the biosphere and thus requiring qualitatively different epistemologies and methods to understand it. While previous discussion focused on the differentiation between the two spheres, the following discussion points to the coherence between biospheric and noospheric principles through a close observation of organic qualities that can be observed in imaginative, living thinking.

Two parallel threads of imaginative/living thinking and intuition can be observed to converge in several ways. Firstly, they converge in the persons of three 20th century philosophers, as far as I am aware.51 Bergson wrote significantly on intuition, and his notion of élan vital, which although discredited by formal science, is making a comeback as living thinking via the new vitalism at the metaphoric level (Fraser, Kember, & Lury, 2005). Steiner made explicit theoretical links between imagination as a discipline for enlivening thought and intuition as a method for accessing postformal, even spiritual, knowledge. His philosophical aim was that “knowledge itself shall become organically alive” (Steiner, 1894/1964); Deleuze was clearly interested in intuition, having devoted a book to elaborating on Bergson’s intuitive method (Deleuze, 1988/2006). His philosophy, along with his collaborator Guattari, could resuscitate the languishing continental life-philosophy project through their claim that: “philosophy is the art of forming, inventing and fabricating concepts” (Deleuze & Guattari, 1994, p. 2).

Secondly, these threads converge in a collection of transpersonal and feminist methodologies. In the late 1990s the edited book Transpersonal Research Methods in the Social Sciences, broke new ground in methodology by drawing together contemporary endeavours to re-enact these century-old seeds52 (Braud & Anderson, 1998). Chapters were included on organic research, intuitive inquiry and integral inquiry to name a few (Anderson, 1998; Braud, 1998; Clements, Ettling, Jenett, & Shields, 1998). The organic and intuitive methods will be briefly...

51 There are also other philosophers who highlight the significance of these two postformal modes of thinking, but whose major works are not available in English: e.g., Benedikter (2005).
52 A critique of this collection is that the authors do not tend to refer to the broader historical context in which their research sits, for example the 20th century developments that I discuss here.
explored for their relevance to my project. Four feminist transpersonal researchers have
developed a methodology called organic research, which focuses more on the research process
than the product (Clements, Ettling, Jenett, & Shields, 1998). Clements, et al. identify five stages
in their process: sacred: preparing the soil; personal: planting the seed; chthonic: the roots
emerge; relational: growing the tree; transformative: harvesting the fruit (p. 117). I am able to
identify all of these phases in my research, however, it seems that they are fairly self-explanatory,
so for lack of space, I will bypass further explication. While this organic research method is a
step beyond mechanical structures, it does not take the next step to explore the relationship
between organic methods and living thinking. Nor do they identify the organic notion of
emergence that appears in the new biological literature on the evolution of consciousness.

Likewise, Rosemary Anderson’s intuitive inquiry takes significant steps but does not
make the additional links with imagination and/or organic thinking processes. Nor does she refer
to other seminal research in this field (Anderson, 1998). Anderson identifies ten essential
features, which I intuitively utilise, thus finding support for my own methodological process.
Anderson (1998) identifies “sympathetic resonance as a validation procedure” (p. 73) further
noting that the researcher constructs “the social context of knowledge: building validity through
circles of sympathetic resonance” (p. 74). Examples of my use of intuitive resonance and circling
are demonstrated in Chapter Three (pp. 11, 28). Anderson also highlights the intuitive dimension
in such notions as “the personal is universal (the heuristic contribution)” (ibid., p. 75) and “the
personal is political (the feminist contribution)” (ibid., p. 76). These heuristic and feminist
components of my work are particularly evident in my reflective narrative and my critical
engagement with cultural pedagogical practice (see also Preface to Chapter Three). My interest in
enacting Anderson’s “compassionate knowing (the soft wisdoms of the heart)” (ibid., p. 80) in
my research is demonstrated in several places but particularly through my notion of critical
reverence (see Chapter Three, p. 35). The intuitive elements of “delight and surprise” (ibid., p. 80)
have been consistent threads throughout my research and are sprinkled through my narrative.
Finally, Anderson elucidates the uniqueness and particularity of the individual “human voice”
(ibid., p. 81). This has clearly been enacted throughout via my reflective narrative, but I have also
identified voice as a significant theoretical issue in my educational philosophy (Chapter Five).
While it is evident that imagination would be required to develop such a methodology, Anderson
does not explore this possibility.
Another area of research that is relevant to this discussion is the new biological research on emergence arising from complexity theory. Although the notion of emergence has gathered strength in the last two decades (Deacon, 2003; Goodenough & Deacon, 2006; Maturana & Varela, 1980/1991; Thompson, 1991; Varela, Thompson, & Rosch, 1993), it was not well-received when it was first proposed in the 1970s (Popper & Eccles, 1977). The notions of self-organisation/autopoiesis and emergence in evolution (Maturana & Varela, 1980/1991; Varela, Thompson, & Rosch, 1993) are discussed in Chapter Three, Appendix B (p. 196). A limitation of the biological science literature on emergence is that much of it does not go far enough to consider emergence at the noospheric level or beyond. One of my research interests is the application of the notion of emergence beyond biology into psycho-socio-cultural, philosophical and spiritual domains. This research is as yet embryonic (Braxton, 2006; Clayton, 2006; Gidley, 2002; Hurlbut & Kalanithi, 2001; Swimme & Tucker, 2006).

Thirdly, I propose that the parallel threads of living thinking and intuition converge in my dissertation through organic emergence (see Prologue, Table P3: Organically Emergent Dissertation Structure). My research began with an intuitive sense of the research focus and a long-term trust in the vitality of imaginative thinking. My personal approach to intuitive inquiry is a practiced skill with a double focus. One dimension of it is directed outward towards scanning the external environment for new knowledge, across and between disciplines. The other dimension is an inner-directed heuristic evaluative method for discerning the value of new material and weighing up new ways of cohering it against my internal interpretive understanding. In this liminal place I constantly enacted internal hermeneutic dialogue about my research process. I reflectively checked and grounded my interpretations against my intuition. This is part of the phenomenology of my research gaze. My confidence in this process is not random, but rather has been grounded in over 25 years of practice of the spiritual intuitive methods developed by Steiner. In terms of my research process, this dissertation enacts a symbiosis of imaginative/living thinking with intuitive inquiry whereby a context was created that enabled a harmony between structure and emergence. To my surprise, upon reflection, I experience what emerged from this symbiotic process as a conceptual flowering of the seeds I planted at the beginning of the research. I experience in this process a higher resonance of the biological process of autopoiesis. I would characterise this as a noospheric emergence.

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53 I have research in progress on the relationship between evolution, involution and emergence (Gidley, 2008).
54 I also wish to thank Gary Hampson for encouraging me to trust the emergence process.
6. Summary

I have elaborated on my integral evolutionary philosophy, my transdisciplinary epistemology, my methodological bricolage and my subjective-objective research process, all of which were introduced in the Prologue. I have also demonstrated the internal coherence between all these aspects of my research.

In this Metalogue I explore the different interpretations of evolutionary philosophy and the role of formal conceptual boundaries and philosophical territorialism in hindering the evolution of consciousness. I note several 20th century philosophical developments that mark the shift from modernism to postmodernism, identifying philosophical pluralism as a key indicator of this shift. As a balance to the cultural relativism that is often associated with pluralism, I utilise the notion of adequatio as significant for a hierarchical cohering of knowledge spheres and associated epistemologies. This analysis points to the possibility that philosophy itself is evolving in ways reflective of the shift of consciousness that this dissertation reveals.

Consistent with the proposed evolution of philosophy, I trace the epistemological development from disciplinary hyper-specialisation through a plethora of pluri-disciplinarities to Nicolescu's transdisciplinarity. I justify the suitability of this epistemological approach and its adequacy for postformal-integral-planetary research through its recognition of levels of reality, the logic of the included middle, and complexity. As an approach that operates “between the disciplines, across the disciplines, and beyond all disciplines” it is closely related to my chosen methodology of theoretical bricolage, which works “between and within competing and overlapping perspectives and paradigms.” Both of these approaches are infused with the spirit of Hermes, the archetypal boundary-crosser and patron of hermeneutics who inspires my enactment of the complex art and science of interpretation throughout this dissertation.

Nicolescu claims that when there is coherence between the “flow of information” (exterior knowledge) and the “flow of consciousness” (interior knowledge), then “open unity” can arise (Nicolescu, 2002, p. 56). I have demonstrated that this open unity is facilitated in my research through the transparency of my role as subject in the research, and by explicating the tacit but significant role of interior knowledges such as imagination and intuition. A significant feature of my deliberate use of imagination and intuition, as revealed in this Metalogue, is the extent to which the various components of my research have been intimately and intertextually woven together through my imaginative and creative selection of adequate and internally...
consistent approaches. Like Kristeva, I have focused on “interconnection of ideas where previously none existed” (Orr, 2003, p. 24).

A more detailed articulation of the significance of my philosophical and theoretical contributions is undertaken in the Epilogue, in the context of the research limitations and an evaluative discussion.

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Interlude Four: The Integration of Integrals

My decision to focus my central analysis on the integral evolutionary narratives of Steiner and Wilber, in the light of Gebser’s structures of consciousness, has been discussed conceptually in the Prologue and Chapter Three. This interlude reflects briefly on the inner journey that I underwent in parallel with the broadening of my conceptual understanding.

An informal heuristic analysis indicates that throughout almost three decades, since I first encountered Steiner’s philosophy, I have engaged in an internal hermeneutic process. Partly because of the interweaving in Steiner’s own style and partly because of my own networking style of thinking, I have actively engaged in a process of evaluating, interweaving and interconnecting Steiner’s knowledge content to create my own tapestry of meaning and interpretation. Because I have also worked with the concepts in the life-world of pedagogy rather than merely holding them in mind abstractly, as dogma, I have created a living-working-knowledge of Steiner’s writings. Although it is impossible to locate the original source of some of it, I am aware that I draw tacitly to some degree on this inner knowing of Steiner in my research—in addition to all the explicit references I cite.

My (re-) discovery of Ken Wilber’s writings around 2001 (I had read some of his work earlier) brought a new and exciting element into my consciousness. The more I read of Wilber, the more I could feel the synergies with Steiner’s work and the more confused I became that Wilber had not substantially included Steiner’s writing in his integral philosophy. After an initial period of assessing/judging/evaluating everything I read of Wilber from my ‘internalised Steiner lens’ (albeit my own interpretive version of Steiner), I began to internalise Wilber’s philosophy as well. I felt I was becoming “philosophically bilingual.” As I began to consciously experience the dynamic interplay in my mind between the concepts, language, socio-cultural and historical contexts of these two approaches, I deeply experienced what I want to call the ‘Being’ of hermeneutics, or, the Presence of Hermes. I felt I knew what Gadamer meant by merging of horizons, not just as a mental construct, rather as a lived experience.

This hermeneutic merging of horizons between my interpretations of Steiner’s and Wilber’s philosophies has placed me in a somewhat unusual position of being able to write from both an emic perspective as an ‘insider’ and also an etic perspective as an ‘outsider’ with respect to each approach. Interestingly, there is a tendency for both approaches to attract an ‘ingroup’ and an ‘outgroup’. There is also a tendency for those within the ‘ingroup’ to be reluctant to be open to critique and/or to perceive it as an attack on the philosophy. Another similarity is the tendency of the ‘ingroup’ to speak/write in a particular style of language where particular words have taken on particular mythic meanings within that approach, and where that meaning becomes absolutised or even fundamentalised. I have had to do considerable deconstruction of my own languaging of particular concepts that I had inherited and internalised from Steiner. I became aware that I needed to break through to the notion of more multiplicitous meanings of words and concepts. For this realisation I give thanks to Derrida’s deconstruction and also to my hermeneutic collaborator Gary Hampson for our endless dialogues on meanings of words and concepts.
This postmodern/poststructuralist turn in the second phase of my philosophical journey had several consequences. In addition to assisting me to better contextualise the dominance of the scientific, biological evolutionary narratives, it also had the unexpected side effect of opening up my concept of integral theory. The notion of a plurality of integrals began to emerge.

Secondly, my immersion in the postmodern philosophical writings awakened my awareness to new types of scholarship and new styles of academic writing—from Chapter Three onwards) increasingly expresses the layered contextualism of the poststructuralist influence, particularly intertextuality.

I became more empowered by my reading of Foucault and Derrida. My confidence began to increase that my pluralistic, transdisciplinary, bricolage of hermeneutic dialogues could contribute something new to the evolutionary discourse. A flow of other relevant evolutionary literature appeared. I also became more aware of the diversity within the scientific evolutionary narratives. A rising from within science but moving beyond materialistic scientism, a soft voice of spirituality was beginning to be voiced—in the emergence theories of Ursula Goodenough and Terrence Deacon and autopoiesis theories of Varela and others. This conceptual evolution in science—an important marker of the new consciousness—arose from the 20th century postformal extension of 19th century formal-classical physics and biology. It includes the theories of relativity, quantum physics, chaos, complexity, and self-organisation.

I also began to uncover other relevant academic voices contesting the dominance of scientism in qualitative social science research, philosophy, and the arts. A landmark conference in the USA in 2006, called together qualitative researchers worldwide to discuss the increasing hegemony of the scientific evidence-based research agenda. Social scientists coined new terms such as neo-fundamentalism, and the audit culture. Significant players in raising awareness of the scientistic control agenda and its damaging affect on research freedom and creativity are Norman Denzin and Elizabeth St Pierre in the USA. In the UK, Maggie MacLure’s baroque and Peter A bb’s poetic philosophy offer creative ways forward. A major concern for research such as mine, is that if the dominance of the scientific and materialistic trends continue it may further marginalise unquantifiable research interests such as spirituality.

My emerging notion of a plurality of integrals created the opening for my interest in integration of integrals, initially focused on integrating the evolutionary writings of Steiner and Wilber. Through my searching for researchers who may have already undertaken such a project, integral philosopher Roland Benedikter emerged as a fellow-researcher with an interest in integrating the work of Steiner, Wilber and others. Benedikter’s Postmodern Spirituality was particularly significant in overturning my taken-for-granted assumptions about postmodern philosophy, and widening my horizons in terms of what I included as integral theory. My journey then proceeded to a deeper exploration of many of the primary sources that Wilber had referenced in his writing: particularly Gebser, Sri Aurobindo, Teilhard de Chardin, Whitehead and many others. This deepening of engagement with a variety of integral evolutionary philosophers has infused my writing with a rich multivocality of integral perspectives.

Chapter Three is the broad, deep and lengthy product of this fascinating, macrohistorical journey.
Chapter Three

The Evolution of Consciousness as a Planetary Imperative: An Integration of Integral Views

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[Chapter Three covers dissertation pages 174-396 inclusive]
Interlude Five: Educational Aporias, Dialogues and Coherences

The extensive integral evolutionary journey of Chapter Three points ineluctibly to a global epistemic shift affecting most fields of knowledge in the 21st century. I identified a critical imperative to bring this new understanding to the attention of educational theorists, practitioners and policy makers. Yet by the time the central analysis was nearing completion I became aware that much of the material in Chapter Three may seem too esoteric, academic, or tangential, to be relevant to those concerned with the day-to-day realities of the classroom or the departmental budget. I began to realise that if my research were to be useful to educators and policy makers, the burden of the latter part of my dissertation would be a hermeneutic translation of my integral evolutionary philosophy, my transdisciplinary epistemology, and my complex bricolage of methods. My theoretical contributions and insights need to make sense to those responsible for both institutional education and the broader enculturation of children and young people. I had educational experience to draw from in two directions. Yet both these experiences had left me bereaved, creating aporias in terms of how to approach the translation. My lived experience of working creatively with Steiner education had revealed both its educational power and the weakness of its isolationism, leading to my interest in creating conceptual bridges between Steiner and the academy. My later lived experience of the structural rigidity in mainstream education affirmed my commitment to educational transformation and stimulated my interest in pursuing additional educational and philosophical alternatives to the factory model of education.

When the time came to write these educational chapters, I experienced a significant writer’s block in terms of bringing the complexity of my integral evolutionary analysis into a suitable form that would be of interest and relevance to educators. This aporia was overcome through a dialogic process with Gary Hampson, in which I began to process my insights pedagogically. This process facilitated a significant shift in my own consciousness from a more monological writing process to a more dialogic one—enacting the dialogic consciousness I was theorising.

Another development in these following chapters was a shift from a largely topographical narrative approach to one that was more theoretical and topological. I needed to begin to map the relevance of the evolutionary narratives to education. I needed to move beyond the rich aesthetics of the phenomenological tapestry and begin to enact some delicate theorising. Having confirmed that Wilber’s and Steiner’s narratives were aligned, I analysed Steiner education using Wilber’s AQAL integral framework—an authentic, meaningful way to integrate them pedagogically. I aimed to translate Steiner’s content through Wilber’s more accessible topology and to translate Wilber for Steiner educators looking for a new impulse for Steiner education in the 21st Century.

As discussed in the previous Interlude, I began this dissertation by viewing the ‘outside’ of Wilber’s philosophy from the ‘inside’ of Steiner’s as I struggled to find a ‘way in.’ Now, largely at the other side of this process, I find myself as a former Steiner ‘insider’ on the ‘outside’ looking ‘in’, ironically, from the conceptual ‘inside’ of Wilber’s AQAL framework, as I ask the question in the following chapter: How integral is Steiner education?

Chapter Four is a distillation and translation of my integral evolutionary narrative in a way that it may be of interest and relevance to educators and other researchers seeking less fragmented and more spiritually oriented alternatives to the dominant educational model.
Chapter Four

Educational Imperatives of the Evolution of Consciousness: The Integral Visions of Rudolf Steiner and Ken Wilber

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[Chapter Four covers dissertation pages 399-417 inclusive]
Interlude Six: Finding my Aesthetic-Philosophical Voice

The final struggle in writing this dissertation was to find my own authentic voice. My academic mentors have been men. The philosophers that I chose to research were also men. The modus operandi for formal academic writing is archetypally male. Having previously believed I had left my feminism behind in the seventies, to my surprise, as I approached the end of my doctorate, a deep, tacit layer of hindrance—an inner patriarch—arose in my psyche. This manifested as a fear that my work was not sufficiently theoretical, topological, nor philosophical—in an analytic sense. I reflected on the maleness of my research territory and the conversations I was contributing to. I became acutely aware of the lack of female philosopher forebears in grand philosophising. Arguably there are isolated instances of women polymaths, even from medieval times, such as Hildegard von Bingen (1098-1179). Women also made a significant contribution to 20th century philosophy, especially the French feminists (Hélène Cixous, Simone de Beauvoir and Julia Kristeva). However, much 20th century feminist philosophy has focused primarily on gender issues, which can lead to further marginalisation from the main philosophical conversations. The lack of women evolutionary philosophers leaves me feeling adrift as a woman, entering philosophical conversations held mostly by men. To overcome this final aporia I gained encouragement from Kristeva’s “defiance of limitation... by the combination in the text of autobiography and theory” and Cixous’ écriture feminine. So... against the entrenchment of scientific materialism, and the intransigence of dominant voices, I humbly offer an educational philosophy for evolving consciousness.

My authentic aesthetic-philosophic voice emerged in poetic fragments as I journaled my way through this aporia and speaks increasingly strongly through Chapter Five and the Epilogue.

What am I doing here? What can I bring? What can I give?

I am a tiny/giant receptor/transmitter.
Gathering pearls, (and casting them). Who will hear?
Elucidating the illuminators. Herming the messengers.

I am a holding pattern, holding a pattern of active imagination, a visionary-woman in a conceptual-man’s world, a mermaid in a nautilus shell spiralling in and out, gathering the visions and sounds of the masters of hard-head-work, treasuring them, swirling them round in my own interior spaces, dancing with them in my mind. But which mind exactly am I using, my rational mind wonders? Am I making the mistake Ken accuses the German Idealists of making, trying to present the transpersonal ideas of the spiritual world with only the tools of vision-logic?

... I am a hard-headed woman actually, but not so hard-headed that I can live for long in pure Hegelian concepts without wanting to ever and always pull them down and tease them out so they can interweave with the living ground of earth and forest, endangered animal, endangered child and all of our creations. In semi-deep contemplation, with Goethean grounded spirit, and Schillerian sensual spirituality I play with concepts in my imagination, visualising how they dance with each other as I weave patterns in the Gebserian spherical architecture of my mind, like St Theresa in her interior castle, only mine is a geodesic dome made of the finest feathers and silk like a translucent dandelion head with a place for everything—even the flickering shadows of my own fundamentalism. (Gidley, PhD Journal)
Chapter Five

Education for Evolving Consciousness:
Voicing the Emergence for Love, Life and Wisdom

SUBMITTED as:


Chapter removed due to copyright restrictions pp. 420-448.

Pre-print of chapter available online at http://researchbank.rmit.edu.au/view/rmit:3679

[Chapter Five covers dissertation pages 420-448 inclusive]
Towards the latter stages of my dissertation, a nagging doubt began to emerge that my research was too Anglocentric and even rather American-centric. Since I could not become multilingual in a short time, to address the Anglocentrism, I began much more actively to seek out non-American literature, and especially contributions to the relevant discourses from non-English integral/holistic authors whose work was available in English. This process led to the curious realisation that the term integral is particularly favoured in North American circles and is far less visible in other national or regional spaces, including discourses arising from French, German, Italian, Spanish and other European languages. Yet many of the writers I was drawn to were very highly integrative in the sensibility of their thinking and writing, but without foregrounding the term integral. I had the opportunity to visit Europe in 2007 and to meet face-to-face several people whose work I have been researching. While it is beyond the scope of this short reflection to explore in detail the insights that arose from these meetings, the broader, more planetary understanding of integral theory that I acquired during these encounters has enabled the confidence to bring closure to my delicate theorising.

At the beginning of this dissertation I introduced the type of inquiry that I enact as postformal conceptual research (see Prologue, Table 1). As I approach the end of my dissertation, I now understand for the first time, one of the unique differences between my dissertation and formal conceptual research. My conceptual research has a strong element of embodiment—I embody my idealism. Although I did not explicitly undertake field research, the thoroughness which which I sought conceptual clarity took me on two field trips: 1) three months in Boulder, Colorado, with side trips to San Francisco, Amherst and Haverford—centres of integral thinking; 2) five weeks in Europe, including Weimar/Jena, Prague, Bolzano, London, Eyragues, Paris, Dornach and Luxemberg on a philosophical pilgrimage to discuss the developments of integral and transdisciplinary thought and education in contemporary Europe. I do not believe that the high degree of embodied cohering that I have been able to bring through in the Epilogue could have occurred without both of these embodied-conceptual excursions.

Finally, as I strove to draw together the diversity of threads I had uncovered, I “accidentally” drew an online Zen Tarot Card. Here is an extract:

“This is the way of Zen, not to say things to their completion. This has to be understood; it is a very important methodology. Not to say everything means to give an opportunity to the listener to complete it. All answers are incomplete. ... Here, the last piece of a jigsaw puzzle is being put into its place ... Even in the ever-changing flow of life there are moments in which we come to a point of completion. In these moments we are able to perceive the whole picture, the composite of all the small pieces that have occupied our attention for so long. In the finishing, we can either be in despair because we don't want the situation to come to an end, or we can be grateful and accepting of the fact that life is full of endings and new beginnings. Whatever has been absorbing your time and energy is now coming to an end. In completing it, you will be clearing the space for something new to begin. Use this interval to celebrate both - the end of the old and the coming of the new.”

My reflection here is that the closure I required for my dissertation was to recognise and accept that my PhD is, and indeed needs to be, incomplete—in a postformal-paradoxical way.
EPILOGUE

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1. Summary and Significance of Dissertation

1.1 Offering a New Evolutionary Narrative: Unity of Dissertation

Since our insight into the energies pressing toward development aids their unfolding, the seedlings and inceptive beginnings must be made visible and comprehensible. (Gebser, 1949/1985, p. 4)

This dissertation is a reflective response to the call by Gebser to make “visible and comprehensible” “the seedlings and inceptive beginnings” of the new consciousness that he elaborated fifty years ago. The dissertation Prologue introduced several contemporary challenges that, arguably, can be more fully comprehended and addressed by the strengthening of these new beginnings. It was noted that if the complexity of current planetary challenges is to be adequately addressed, an epistemological shift is needed beyond the limitations of formal thinking. The impact of these challenges on the psycho-social well-being of young people was referred to as the global youth problematique and it was proposed that the modernist, formal education model is ill-equipped to meet these challenges. The Prologue also indicated how this dissertation would address these challenges, by elucidating the type of inquiry (postformal conceptual research); the substantive conceptual content (evolution of consciousness); and the pragmatic interest (futures of cultural pedagogical practice).

Chapter One identified features of the youth problematique and the broad cultural pedagogical context surrounding it, through a causal layered analysis. This chapter revealed that young people “sense a spiritual vacuum in their society” and pointed to the need for a deep reconfiguring of the narratives underlying the dominant materialist culture to re-integrate— albeit in de- and re-constructed forms— the wisdom of the perennial traditions. Chapter Two provided a macrohistorical context for understanding the relationships among education, consciousness and culture. It provided a broad overview of the literature on the macrohistory of culture and consciousness and pointed to an emerging postformal, integral consciousness that is creative, dialogic, imaginal and paradoxical. It explored possibilities for integrating the wisdom of the perennial traditions with the postmodern movement beyond dogma and certainty to create a diversity of integral worldviews or cosmologies for collective futures. The comprehensive, yet marginalised, worldviews/cosmologies of Steiner and Wilber were posited for their potential contributions to the discourse.
The Metalogue provided an overview and elaboration of my integral evolutionary philosophy, my transdisciplinarity epistemological approach, the methodological pluralism of my theoretical bricolage and the reflective intertextuality of my organic-intuitive research process. It also demonstrated the internal coherence of these components of my research, and their adequacy in regard to the subject matter being researched.

Chapter Three— the central chapter— provided the major conceptual analysis at the heart of the research. It substantially reviewed the literature on the evolution of consciousness, and undertook a deep hermeneutic focus on the comprehensive, though heterodox, evolutionary narratives of Steiner, Wilber and Gebser, thus offering alternative interpretations to classical Darwinism via other paths than biology and the increasingly biologised forms of other social sciences. This chapter broadened and deepened the evolution of consciousness discourse in several significant ways. It applied a transdisciplinary lens to a deep hermeneutic analysis of the human evolutionary journey from origins to emergent futures, in particular teasing out the convergences and divergences between Steiner’s, Gebser’s, and Wilber’s theoretic narratives.

Features of an emergent consciousness were revealed and elaborated through cohering the literature on postformal, integral and planetary consciousness, coining a new compound term postformal-integral-planetary to more adequately characterise the multiplicity of features of the new consciousness. Three conceptual side journeys were also taken in this chapter through depth-dives into multiple conceptions of time (Appendix A); macrocosmic conceptions of space (Appendix B); and the evolution of literacy through art (Appendix C). These appendices pointed to directions for further research and theorizing.

The dissertation then began to explore the educational imperatives arising from the new consciousness. Chapter Four distilled and cohered the broader and deeper understandings of evolution in a form suitable for engaging the current education discourse. It also examined the “integrality” of Steiner education through a Wilberian lens, offering a conceptual dialogic furthering of these two approaches, in contrast to dealing with them more distinctly as in Appendices 3 and 4. This chapter proposed four core pedagogical values that both reflect postformal-integral-planetary consciousness and that may also enable the strengthening of its emergence. Chapter Five reflected the unity in diversity among the postformal educational approaches that nurture one or more of the qualities that support the evolution of consciousness. It further elaborated the four core pedagogical values of love, life, wisdom and voice/language that arose from the theoretical intersection between the evolution of consciousness themes and
emergent postformal educational discourses. It elaborated my evolutionary education philosophy that provides a counter-balance to the current neo-fundamentalist emphasis on the science of education, by offering an aesthetic-philosophic vision of futures of cultural pedagogical practice that could facilitate conscious evolution.

There are however limitations to such a brief and neat summary of my dissertation. It may appear to simplistically follow a linear, progressive trajectory from massive planetary problems and youth crises; beyond the modernist, materialistic, Darwinian worldview; to incorporate some broader, more comprehensive evolutionary narratives, which point to a postformal-integral-planetary consciousness that can infuse a new educational philosophy for a more loving, healthy, wise, and interconnected world. Is this another grand utopian narrative, perhaps? From one perspective this research does unabashedly point to the potential of such conscious contributions to evolution. In that sense, it does indeed provide a significant alternative to the orthodox evolutionary human narrative by viewing the notions of progress, development and evolution from more psycho-spiritual and pluricultural perspectives than the uni-lineal materialism of classical and social Darwinism. But that is only part of the picture. If one turns a tapestry over one can see that wherever there is a unified block of colour on one side, there is a complexly interwoven multi-coloured patch on the other. And this is also the case with my dissertation. I will now tease out some of the particularities that were revealed through my “perpetual movement across thresholds,” to honour what Nicolescu calls the “luxuriance of the plural” (Klein, 1994, § 4, para. 1).

1.2 Contributions to Knowledge Pluralism—Diversity within Dissertation

For Heidegger, it is significant that Hermes is the messenger of the gods ... for the message brought by Hermes is not just any message but “fateful tidings”... Interpretation in its highest form, then, is to be able to understand these fateful tidings, indeed the fatefulness of the tidings... One does not so much act as respond, does not so much speak as listen, does not so much interpret as understand the thing that is unveiled. The primary movement here is understanding as an emergence of being... Such interpretation enters into a loving and fundamental dialogue with the greatest efforts of the past to grasp the meaning of being. (Palmer, 2001, para. 7-9)

Throughout the course of this research, I have in several ways enacted the role of the Hermes archetype: generically, as a pre-eminent boundary-crosser, and specifically through my engagement with hermeneutics, and through my identification of the emergence of a neo-hermetic thread arising in the Academy. My engagement with hermeneutics has been extensively
discussed in the Metalogue and also in Chapter Three (pp. 36-41) and will not be repeated here. My proposal regarding an emerging neo-hermetic academic thread has also been discussed in Chapter Three (Appendix B, pp. 190, 199) and will not be elaborated here. Before attempting to provide a coherent elucidation of the original theoretical contributions to knowledge that my dissertation has revealed, I wish to list a number of particular contributions that have arisen at many points along my research journey. These emerged from my scholarly quest to work at the boundaries of disciplinary knowledge, to honour the luxuriance of knowledge pluralism. Like Hermes, I traversed thresholds to gaze into the perceived gaps in the existing knowledge spheres. This dissertation was intentionally developed within the creative marginality1 between paradigms, philosophies, theories, disciplines, discourses, ideas and practices. From this plural perspective, the diversity of this dissertation’s contributions to knowledge are revealed in numerous areas:

The evolution of consciousness:
• applying a futures-oriented lens to discourses that comprise the evolution of consciousness research, particularly through macrohistorical and layered methodologies (all chapters);
• identifying a three-stage cosmological model of macrohistory to explore the relationships among education, culture and consciousness (Chapter Two: Figures 5, 6 & 14);
• broadening the general evolution discourse beyond the dominant biological narrative, by enacting a transdisciplinary epistemological approach, thereby integrating cultural, philosophical, psychological and spiritual discourses (Chapter Three, p. 123);
• deepening the evolution of consciousness discourse by including a broad range of discourses, including, but not limited to, integral theories (Chapter Three, p. 123-124);
• introducing to the evolution discourse Steiner’s little-known integral evolutionary theory (1906) as a contrast to Darwinian evolution; and his exploration of the symbological and cultural application of Haeckel’s phylogeny and ontogeny theories, well before Piaget;
• identifying the underappreciated relationship between astronomical cycles (Milankovitch cycles) and evolution of culture and consciousness (Metalogue, Chapter Three); 2

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1 Creative marginality was coined in contrast to the patrimony in disciplinary territorialisation. It reflects the creative work that happens at the margins of disciplines beyond their formal knowledge bases (Dogan & Pahre, 1990).
2 These cosmo-cultural relationships Steiner identified in the early 20th century (Steiner, 1971) are only recently beginning to be explored by evolutionary theorists of culture and consciousness (Bocchi & Ceruti, 2002; Sedikedes, Skowronski, & Dunbar, 2006; Ulansey, 1991).
Contributions to a broadening and deepening of integral theory

- introducing the emerging field of integral studies, which is currently largely informed by Wilber’s theories, particularly in the USA, to a critical re-evaluation of Wilber’s contribution to the evolution of consciousness discourse (Chapter Three);
- broadening the integral evolution of consciousness discourse by including the extensive contributions of Steiner to the identification and elaboration of the new consciousness, several years prior to Sri Aurobindo, and decades prior to Gebser (Chapter Three);
- deepening integral theory through integrating and creating conceptual bridges between the conceptually oriented integral theoretic narrative of Wilber and the more aesthetic and participatory integral narratives of Steiner and Gebser, (Chapter Three);^4
- deepening integral through a scholarly appreciation of the actual writings of Gebser, which have been underrepresented by Wilber (Chapter Three);
- creating an intertextual dialogue between the conceptually oriented integral theoretic narrative of Wilber and the more aesthetic and participatory integral narratives of Steiner and Gebser, thus further deepening the integral theory discourse (Chapter Three);
- broadening the contemporary understanding of Steiner’s philosophy, and potentially also Steiner/Waldorf pedagogical practice, by bringing Steiner’s work into dialogue with contemporary academic discourse (Chapters Two to Five and Appendix 3);

The diverse features of the emergent consciousness:

- extending the features of postformal reasoning identified by developmental psychologists to include features identified by educational researchers;
- identifying potential additional postformal features, arising from the hermeneutic dialogue, including: cosmopolitanism, criticality, ecological awareness, empathy, hope, presence, reverence and a stronger emphasis on imagination (Chapter Three, Four & Five);
- proposing that the postformal feature of paradoxical thinking may throw light on the complementarity principle in quantum physics (microcosm), and suggesting the possibility of its relevance at the cosmological level (macrocosm) (Chapter Two: Figure 14);

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^3 Integral studies is being posited as a new field by proponents of Wilber’s theory and is currently being pioneered in the USA by several faculty at JFK University in California (Esbjörn-Hargens, 2007).

^4 This point was actually articulated by one of the external reviewers for Chapter Three: “By integrating and creating intellectual links between the writings of Steiner, Gebser, and Wilber, the author has contributed to Integral Theory in a unique and significant way.”
Disciplinary implications of the emergent consciousness:
• proposing that the evolution of consciousness has implications for philosophy that may involve the evolution of philosophy to more fully reflect a unitas multiplex (Metalogue);\(^5\)
• contextualising the new thinking found in postmodern philosophy;\(^6\) new sciences and postformal pedagogies, within evolution of consciousness (Chapters Three, Four & Five);
• bringing postformal psychology research into intertextual dialogue with integral theoretic narratives and notions of planetary consciousness (Chapter Three & Five);
• seeding an integral psychology model based on Steiner’s layered view of human development as a basis for further research (Chapter Two);

Epistemological and methodological implications of the emergent consciousness:
• integrating and cohering many features of postformal reasoning to initiate the theoretical development of postformal conceptual research as a new type of inquiry, which could potentially form the basis of a new postformal research paradigm (Prologue);\(^7\)
• identifying and articulating the potential interrelationships among various kinds of boundary work such as bricolage, de-territorialisation, hermeneutics, intertextuality and transdisciplinarity, thus creating an adequate coherence between my philosophical, epistemological and methodological approaches (Metalogue);
• enacting an integral approach to hermeneutics drawing on both Ricoeur and Wilber;
• coining the term delicate theorising after Goethe’s delicate empiricism, as a way to cohere knowledge without reducing its plurality (Chapter Five);

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\(^5\) Psychologist William Stern coined the term in relation to his understanding of “the person as the center of a unitas multiplex” (Stern & Stern, 1909/1999, p. xxviii). The term has been philosophically re-energised and popularised by Morin to refer to the unity/diversity of the human species, noting that “education should illustrate this unity/diversity principle in all spheres” (Morin, 2001, p. 45).

\(^6\) The significance of this broad contextualisation was acknowledged by one of the external peer-reviewers for Chapter Three before its publication: “The depth and scope of this work offers a way to contextualize some of the current discussions of postmodern and integral consciousness within a much broader and significant conception of the evolution of consciousness.”

\(^7\) As far as I can ascertain there is no existing framework for applying postformal reasoning to research as such. Consequently, my theoretical articulation of postformal research, as elaborated in the Prologue, initiates a process of systematically cohering the postformal features identified in both developmental psychology research and educational research, for the purpose of developing postformal research as a new type of inquiry.
Implications of evolving consciousness for education:

- opening the field of education to dialogue with leading theories and research on the evolution of consciousness with the aim of transforming cultural pedagogical practice to reflect the global systemic shift in thinking (Prologue, Chapter Four & Chapter Five);
- contributing to a broadening of contemporary pedagogical discourse by situating both institutional education (connaissance) and youth mental health issues within a broader, enculturation context of worldview/cosmology (savoir) (Chapter One, Two, Four & Five);
- identifying a youth problematique arising from faulty enculturation processes in contemporary western culture (Chapter One and Appendix 1);
- identifying three broad stages of development in the history of education: informal (pre-institutional), formal mass school education (institutional/factory model), and postformal (a plethora of alternative pedagogies) (Chapters Four and Five);
- analysing Steiner education from the perspective of Wilber’s integral AQAL framework (Chapter Four);
- identifying and articulating significant spiritual approaches to education that are not limited by religious sectarianism (Chapter Four);
- articulating features of the modernist formal schooling model that hinder the emergence of new consciousness (Chapter Five);
- enacting a hermeneutic dialogue between evolution of consciousness themes and postformal pedagogical approaches (Chapter Five);
- identifying and theoretically cohering a plethora of postformal educational approaches, under the core values of love, life, wisdom and voice/language (Chapter Five, Figure 1);
- offering an evidence-based educational philosophy informed by hermeneutic, transdisciplinary, human science research as an alternative to the scientism currently dominating the education agenda (Chapter Five).

I acknowledge that the above list of theoretic contributions may appear unusually expansive. However, I propose that it is part of the Hermes-inspired quality of boundary-crossing

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* The significance of this contribution was noted by an external peer-reviewer of Chapter Four before publication: “A highly theoretical and analytical (particularly with Wilber and Steiner’s material) investigation of relevant literature to support an argument for a spiritual dimension in education.”
* The potential of my educational philosophy to inspire educators was intimated by an external peer-reviewer of Chapter Five: “The focus on love, life, wisdom and voice as key elements in education (in/for spiritual development of children) is exciting.”
to make multiple contributions across many liminal border-zones. Like the profusion of biodiversity one finds in the liminal zones where biological ecosystems overlap, this dissertation demonstrates a profusion of noodiversity arising in the noospheric liminal zones where knowledge territories overlap. Such intentional noospheric diversity is arguably an antidote to monological narratives, hyper-specialisation and the boundaries that define formal knowledge.

1.3 Towards a Cohering of Plural Knowledge/s—Unitas Multiplex

Open unity and complex plurality are not antagonistic (Nicolescu, n. d., p. 5 of 11).

Knowledge is neither exterior nor interior: it is simultaneously exterior and interior... The open unity between the transdisciplinary Object and the transdisciplinary Subject is conveyed by the coherent orientation of the flow of information, which cuts through the levels of Reality, and of the flow of consciousness, which cuts through the levels of perception. (Nicolescu, 2002, p. 56)

As Nicolescu indicates there must be coherence between the “flow of information [exterior knowledge]" and the “flow of consciousness [interior knowledge]” for “open unity” to occur. I will now discuss how the extraordinary degree of boundary crossing that I have enacted in this dissertation has paradoxically enabled a high degree of coherence between many disciplinary and ideological threads that previously have been disjoined. The fourth subsection below particularly highlights the significance of who I am as a researcher (interior knowledge) for the facilitation of the coherence, through my flow of consciousness.

As indicated in the Prologue the scale of this dissertation underpins both its limitations and its significance. The boldness of my undertaking has enabled the possibility of several significant new theoretical contributions to knowledge that would not have otherwise occurred. My approach is neither a universalist assertion towards one new—even more integral—evolutionary narrative or educational philosophy, nor does it belie the possibility of the discovery of more unifying universal laws through our philosophical reasoning, such as we have found in our sciences, via mathematics. As Kant (1781/1929) noted: “Mathematics gives us a shining example of how far, independently of experience, we can progress in a priori knowledge” (p. 47). Steiner transgressed the limits to knowledge set by Kant, claiming that we can discover, through

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10 The notion of plural knowledges is an emergent concept in the social sciences, in response to the hegemony of the one (western scientific) knowledge. It was part of a theme “making contentious knowledge” at the Cornell University, New York, Institute for the Social Sciences conference, “Knowledge in Contention: Social Movements & the Politics of Science,” October 4-6, 2007, http://www.socialsciences.cornell.edu/0609/Knowledge.html
the disciplined development of our philosophical thinking, something equivalent to the laws of mathematics\textsuperscript{11} that point beyond the boundary between sensible and supersensible knowledge.

When a [human] reaches the stage of being able to think of other properties of the world independently of sense-perception in the same way as [s]he is able to think mathematically of geometrical forms and arithmetical relations of numbers, then [s]he is fairly on the path to spiritual knowledge. (Steiner, 1904, para. 4).

Contemporary philosopher, Gangadean, also works towards this evolving philosophical project with his notions of universal grammar and global reason (Gangadean, 1998). My dissertation in no way claims to achieve what my philosophical forefathers\textsuperscript{12} and other contemporaries have not yet achieved. I do however claim that this dissertation takes a few halting steps along a variety of pathways in the philosophical forest, groping towards the articulation of a richer, more coherent evolutionary philosophy of consciousness that does not compromise the luxuriance of the plural. I explore four conceptual dimensions through which I cohere the diversity of my contributions.

1.3.1 Expanding Time: From Macrohistory to Postformal Futures

A significant contribution of this dissertation is that it stretches the boundaries of time and its modernist conceptualisation. It takes a futures lens to a number of discourses that do not appear to have a conscious sense of the temporal dimension in which they operate. While many disciplines and fields have a sense of the past, very few appear to have a sense of their potential futures. Ironically, even within the evolution discourse, which is clearly embedded in the time dimension, there appears to be little regard for the decades of academic research that has been undertaken in the futures studies field. My research introduces the futures literature to the discourse, taking both a macrohistorical time perspective and also making explicit the

\textsuperscript{11} Steiner (1904) elaborated his point, noting that the development of non-Euclidian geometry, particularly the contributions of Leibniz and Newton to Infinitesimal Calculus, shifted mathematical reasoning to an important new boundary line, whereby we “find ourselves continually at the moment of the genesis of something sense-perceptible from something no longer sense-perceptible” (para. 9). He makes a clear distinction, however, between the quantitative nature of the mathematical laws of the sense-perceptible, and the qualitative nature of the analogous philosophical laws of the supersensible (Steiner, 1904).

\textsuperscript{12} I deliberately use the male-gendered term forefathers here because I am acutely aware of the lack of a philosophical academic context for women in terms of what I will call grand philosophising (see also Interlude Six). Yet, from another perspective, my marginal status as an aspiring woman-philosopher may conceal a hidden Hermes capacity. Richard Palmer (2001) notes that anthropologist, Victor Turner “is fascinated by this marginality, this zone of indeterminacy. He argues that it is from the standpoint of this marginal zone that the great artists, writers, and social critics have been able to look past the social forms in order to see society from the outside and to bring in a message from beyond it” (para. 3).
significance of valuing future time sense as a balance to the over-valuing of the past. All forms of development, growth and progress are embedded in the time dimension and thus need to take into account the future time dimension as well as the past. Postformal reasoning refers to the developmental stage after the establishment of formal operational thinking, the latter being widely regarded in mainstream psychology and education as the highest developmental stage of cognition. Thus postformal reasoning can be conceptually situated in the temporal dimension as a psychological stage that points to the future of human development. There are two disciplines in which postformal reasoning has been previously identified—psychology (adult developmental psychology) and education (some critical education research)—which incidentally provide little or no reference to each other’s work. Yet the literature on postformal reasoning, from either of these disciplines, has not made explicit its relationship to the future. Likewise much of the futures literature is pragmatically oriented and is not explicitly contextualised within developmental or evolutionary models of thinking, nor indeed does much of the futures research address the psychology literature— with some exceptions (Gidley, 2001, 2005; Hayward, 2003; Lombardo, 2007; Loye, 1979, 1983; Rogers & Tough, 1992). By bringing these discourses into dialogue with each other this dissertation potentially extends the scope of understanding within the futures studies field, within the psychological and educational literature on postformal thinking, and more broadly within the evolution discourse. This potentially furthers the project of the General Evolution Research Group (see Chapter Three, pp. 22-23).

The significance of stretching our concept of time through futures studies is of great potential value to education and many other disciplines and fields, such as the sciences, philosophy, and the arts in relation to considerations of the evolution of these disciplines. Even a cursory glance at possible futures in the context of the rapid emergence of more integral and transdisciplinary approaches, suggests that disciplinary knowledge itself may soon become “history.”

By applying a futures lens to research, it has become evident that the domain of research methodology could also benefit from a coherent understanding of the features of postformal reasoning. With this in mind, I have begun to theorise what a cross-paradigmatic postformal research paradigm might look like (see Prologue, Table P2). This is a significant theoretical

13 I understand from my reading of a “call for papers” that this gap in the discourse may be addressed by a forthcoming special issue on postformal thinking in the journal: World Futures: The Journal of General Evolution. This is testimony to the significance and currency of some of the contributions of this dissertation to the leading-edge of knowledge creation.
contribution arising from my insight into the futures of methodology in the light of postformal thinking.

Paradoxically, these temporal conceptualisations rely on the three-dimensional model of time—past, present and future. This dissertation also provides a philosophical contribution to the reconceptualizing of this default modernist notion of linear time on which western culture depends (see Chapter Three, Appendix A). It presents several other ways of conceptualising time that need to be considered, once one begins to enter the paradoxical nature of postformal thinking.

1.3.2 Integrating Approaches to Noospheric Breadth

This dissertation undertook the ambitious task in Chapter Three to provide an “integration of integral views.” A critique of this venture could surely be that this is an egotistic, competitive attempt to enter the rivalrous fray between Wilber, László and the Aurobindians. However, I believe a close reading of my text will reveal that my primary intention—in addition to making a unique, scholarly contribution—is to try to introduce a more dialogic rather than rivalrous tone. My interests in entering into what I consider to be a significant millennial conversation were to listen carefully with critical reverence to what had already been said, to hear the silences and to see what may have been overlooked. My intention is not to introduce another competing integral monologue (another theory of everything) but to begin a conversation that may facilitate a healing within the integral fragments, so that the task at hand—to understand, cohere and translate the breadth of the expanding noosphere—can more freely continue. Before providing a brief overview of how I have cohered these approaches, I make two prefatory points. Firstly, my interest is not so much in the literal use of the word integral but in the meaning that it attempts to express. Secondly, a major contribution of this dissertation is to introduce into the integral conversation the significant contribution to integral evolutionary philosophy of Steiner—perhaps the most marginalised 20th century integral theorist, given his application of integral thinking to so many fields (e.g., medicine, education, agriculture, architecture and the arts, to name a few).

14 Although there are other integral theorists that could be considered, these three streams are the dominant threads operating within what could loosely be called integral theory today. P.R. Sarkar could also be considered but his vast theory is beyond the scope of this research to integrate (Inayatullah, 1999).
I propose a simple frame through which to view the complementary nature of several significant integral theorists.\textsuperscript{15} For the purposes of this schematic summary I have chosen to focus on five integral theorists: Gebser, László, Sri Aurobindo, Steiner and Wilber; and two transdisciplinary theorists: Morin and Nicolescu.\textsuperscript{16} I propose to view the contributions from several metaphoric perspectives, introducing five—mostly new—terms to integral theory: macro-integral, meso-integral, micro-integral, participatory-integral, and transversal-integral.\textsuperscript{17} Based on this new framing I intend to demonstrate how the various integral approaches need not be seen to be in competition with each other but rather as complementary aspects of a broader articulation of noospheric breadth that is seeking living expression. Without implying that any of these terms represent closed, fixed categories or that any of the integral approaches could be contained completely within any of these concepts, I suggest the following provisional mosaic of integral theory as it stands today.

By macro-integral I am referring to the extent to which the integral theorist includes all major fields of knowledge. I suggest that at this level of conceptual integration, Wilber’s AQAL framework makes a highly significant contribution and this is where his strength lies (see Chapter Three, pp. 125-127). The breadth of Steiner’s theoretic contribution to the understanding and integration of knowledge is at least as vast as Wilber’s, however it has been largely ignored by both the academy and integral theorists, perhaps to their detriment (see Chapter Three, pp. 127-129). Gebser also made an impressive, but largely under-appreciated theoretic contribution to articulating the emergence of integral consciousness in numerous disciplines and fields in the early 20\textsuperscript{th} century (see Chapter Three, pp. 129-130). In summary, I see Steiner, Gebser and Wilber as the most significant macro-integral theorists of the 20\textsuperscript{th} century with Wilber being the most accessible (see Chapter Three: The Map, the Territory and the Guide, pp. 125-130).

By meso-integral I am referring to the extent to which the integral theorist contributes significantly to theory building within particular fields or theories. I propose that László’s (2007) contribution is highly significant at this level. Having followed a rather more formal, European, academic-scientific approach to theory building, László has taken a general systems approach to

\textsuperscript{15} I am using the terms theorists and theory in this section broadly to cover philosophy, epistemology and methodology.

\textsuperscript{16} The atypical nature of this list can be accounted for in two ways: My reasons for including transdisciplinary theorists will become evident and other integral theorists who have been considered elsewhere in the dissertation are generally aligned to one or more of these major theorists.

\textsuperscript{17} I recognise that some of these terms have technical meanings in mathematics, engineering and computer sciences, however, I am using them metaphorically in this context.
integral theory. Although it can be critiqued from a Wilberian view as being partial, it appears more successful than most integral approaches at being taken seriously from an academic perspective. Although Wilber and Steiner have both made numerous theoretic contributions to various disciplines, their contributions remain marginalised within mainstream approaches. Sri Aurobindo’s integral approach could also be regarded as a significant contribution at this level— albeit also a marginalised one— given that his philosophy provides a foundation for much of the later integral theory development (Anderson, 2006).

By micro-integral I am referring to the extent to which the integral theorist makes detailed contributions to specific disciplines or fields through the application of their integral theory. I propose that at this level of detailed application of integral theory to a wide range of disciplines and professional fields, Steiner’s extraordinary contribution can no longer continue to be ignored by integral theorists (see Appendix 2). Although it is beyond the scope of this dissertation to consider all the fields of application of his theory, I have made extensive reference to the integral nature of his theory (see Chapter Three) and particularly of its pedagogical application (Chapters Four and Five and Appendix 3). By comparison, Gebser’s, Wilber’s and László’s theories are largely conceptual, although Gebser enacts his integrality in the style of his writing and Wilber is making moves towards the application of his theory in various fields.

The notion of participatory-integral is based on the integral transformative education theory of Ferrer (2002; Ferrer). Ferrer’s participatory approach\(^{18}\) is inspired by Sri Aurobindo’s integration of the three yogas of knowledge, love and action, which is in turn aligned to Steiner’s thinking/head, feeling/heart and willing/hands (see Chapter Three, p. 111). Ferrer emphasises the importance of the participation of the whole human being (body, vital, heart, mind and consciousness) and claims that most integral education theories are either too cognicentric or too eclectic. He provides an alternative framing, based on Wexler’s notion of horizontal integration, as “the way we integrate knowledge” and vertical integration, as “the way we integrate multiple ways of knowing” (Ferrer, Romero, & Albareda, 2005, p. 309). Based on this framing Ferrer places most integral, holistic and even transdisciplinary approaches within horizontal integration. My interpretation is that this framing is too simplistic: firstly, because there are other unacknowledged ways that the terms vertical and horizontal are used in integral theory and other

\(^{18}\) The term participatory in relation to integral theory is also used in a different way to refer to self-reflective enactment (Hampson, 2007) (see also Chapter Three, pp. 13, 110, 124).
theories; and secondly, much depends on how the approach to integrating knowledge is applied. Such a dichotomy could not reasonably be applied to the writings of Steiner, Gebser or Morin.

I also propose a new concept via the term transversal-integral that refers to integral approaches that include and cut across these vertical and horizontal levels/dimensions. While it could be argued that all the integral theorists mentioned cut across these different dimensions to a greater or lesser degree—particularly Steiner and Wilber—I acknowledge two other significant integral thinkers who enact transversal reasoning and relationships through their transdisciplinarity. Morin and Nicolescu do not tend to use the term integral, nor are they cited as integral theorists in much of the integral literature. I suggest the latter is an unfortunate oversight based on semantic and cultural misunderstanding, rather than philosophical understanding. From my planetary scanning of the research it is apparent that the term integral is much more widely used in North America than in Europe. By contrast the term transdisciplinary appears to be used in Europe, particularly by Nicolescu and Morin, with similar integral intent. A special feature of both Nicolescu’s and Morin’s transdisciplinary philosophies is their attention to transversal relationships.

In summary, my position is that integral theory creation to date has been seriously hampered by internal rivalry, factionalism and, ironically, lack of integration of kindred theories. My interest here is in offering a means for perceiving the interrelationships among significant integrative approaches that have been operating in relative isolation from each other. This dissertation points towards the possibility of new liaisons between approaches that are: inclusive of the vastness of noospheric breadth (macro-integral); that provide rigorous theoretic means for cohering it (meso-integral); that attend to the concrete details required for applying the theories (micro-integral); that encourage the participation of all aspects of the human being throughout

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19 Professor of science and theology, J. Wenzel van Huyssteen draws attention to the role of transversality in postfoundational approaches to interdisciplinarity: “Transversality in this sense justifies and urges an acknowledgment of multiple patterns of interpretation as one moves across the borders and boundaries of different disciplines” (van Huyssteen, 2000, Abstract).
20 However, integral theorists from the California Institute of Integral Studies, Alfonso Montuori and Sean Kelly, have been translating Morin’s writing over the last decade and clearly appreciate its significance for integral theory.
21 A lack of clarity on these matters within integral theory may result from a conflation by some American integral theorists of transdisciplinarity with the concept interdisciplinarity, which is more widely used in the US. From my reading of these terms, Nicolescu’s transdisciplinarity is closer in meaning to integral than it is to interdisciplinarity.
22 The Charter of Transdisciplinarity developed in 1994 by Nicolescu, Morin and others acknowledges the horizontal integration of the exact sciences, humanities, social sciences, art, literature, poetry and spirituality (p. 149); the vertical integration of intuition, imagination, sensibility, and the body in transmission of knowledge (p. 150); and also the significance of broader, transversal integration through a “transcultural, transreligious, transpolitical and transnational attitude” (Nicolescu, 2002, p. 140).
this process (participatory-integral); and that are able to traverse and converse across these multiple dimensions (transversal-integral).

1.3.3 Planetary Spaces: Humans in Nature and Cosmos

Another significant original contribution of this dissertation is that in addition to bringing the postformal literature into dialogue with the integral theories, it also introduces a third strand of literature—the planetary consciousness literature. While the psychological literature on postformal thinking primarily focuses on identifying the features of higher stages of cognition, and integral theories primarily focus on inclusiveness of conceptual breadth, and/or inclusiveness of different aspects of the human, the literature on planetary consciousness introduces a much stronger critical, normative element. The critical element is lacking in much of the psychological literature on postformal thinking and much of the integral theory, particularly that based on Wilber, with some exceptions (Esbjörn-Hargens, 2005; Hochachka, 2005; Zimmerman, 2005).

Although Wilber repeatedly claims that his AQAL framework includes “body, mind, and spirit in self, culture, and nature” the strength of his critiques of the eco-philosophies of the romantics and the contemporary “green movements” potentially undermine the critical efforts of environmental ecologists to re-prioritise the needs of nature as part of a fully integral agenda (Hampson, 2007). The planetary scale and urgency of our current crises are foregrounded in this dissertation and viewed as being in intimate relationship with the need to enable the epistemic shift in consciousness. This critical component of the research is supported by the literature that favours the term planetary—rather than postformal or integral—to denote the emergent consciousness. It is also apparent that this literature is frequently genealogically grounded in the evolutionary philosophy of Teilhard de Chardin and his concept of planetization (Teilhard de Chardin, 1959/2002, 1959/2004). Although the planetary consciousness literature tends to foreground critical-ecological and/or cosmological connections there is little or no reference to the developmental dimension demonstrated in the postformal psychology literature, or the knowledge base of futures (Slaughter & Inayatullah, 2000). Another way that I have relocated the human

23 Notably some of the pioneering post-formal educational literature has a critical element (Kincheloe & Steinberg, 1999; Kincheloe, Steinberg, & Hinchey, 1999).
24 As indicated above, Laszlo’s integral theory of everything is infused with a critical awareness of planetary issues as is Gandagean’s integral philosophy. Their works already represent an integration of integral and planetary perspectives, however, they are less explicit about developmental perspectives reflected in the postformal literature.
being in the mediating role between nature and cosmos is through my evolving cosmological models in Chapter Two (see Figures 5, 6 and 14).

This dissertation integrates these three extensive bodies of literature (postformal, integral and planetary) to more fully enrich our understanding of the evolution of consciousness. The powerful mediating role of the consciously evolving human in relation to both nature and cosmos is more fully revealed by integrating the planetary consciousness literature with the postformal developmental and integral literature. This triple integration is introduced explicitly in the Prologue: Key Terms (see Figures P1-P2c) and Chapter Three, Section 8; implicitly in the Metalogue: Table M1; and elaborated pedagogically in Chapter Five. It also provides a key link in cohering the diversity, even rivalry, between some of the new pedagogical threads (see Chapter Five, Figure 1).

This dissertation also provided a philosophical contribution to a broader conceptualisation of space, foregrounding inner rather than outer space, and exploring the historic and emergent role of expanded sciences in re-integrating the rift between microcosm and macrocosm (see Chapter Three, Appendix B).

By the use of my conjoined term postformal-integral-planetary consciousness to denote the emergent new developments in thinking, I have conceptually linked these three theoretic threads to invite further dialogue between their communities of practice.

1.3.4 The Deep Gaze of Hermeneutic Understanding

Fourthly, I do not want to underestimate the particular uniqueness of my approach to this research for its contribution to the cohering process. By consciously foregrounding my role as researcher I lay bare the idea that my cohering process, as in any research, is an interpretive act— a hermeneutic act— aimed at deepening understanding. As discussed in the Prologue, my use of the term gaze denotes a form of Goethean phenomenology and thus carries a participatory sensibility into my approach. I have coined the term delicate theorising to characterise the sensitivity in my approach to cohering the noospheric diversity. Perhaps this is a feminist approach to theorising, although it does not arise from a reading of feminist literature. Perhaps it is a unique, new, postformal-integral-planetary way of “doing theory”— a tentative formulation of thematic threads without hard lines and closed categories. Like evolutionary bricolage, my gaze tinkers at the growing tips of emergent developments waiting to see what it can utilise in its craft. My soft theorising reflects the soft focus of my gaze, my deep listening and deep respect for the
grains of truth in every theory, yet moves beyond relativism to intimate a theoretic stance. My delicate theorising is aimed at increasing understanding while remaining vigilant and open to adapt to new developments. From a subjective-objective perspective it appears very much like the process of evolutionary emergence, so may well be an apt way to theorise the evolution of consciousness.

Finally, my gaze has a pragmatic purpose. My dissertation is not merely gazing at the evolution of consciousness for the purpose of understanding it, but for the purpose of understanding its relevance for education, for the appropriate enculturation of children and young people into the living cultural Zeitgeist. Perhaps one of the most significant contributions of my dissertation is the way that I have brought into conceptual dialogue a distillation of the themes in the evolution of consciousness literature with a plethora of emergent postformal pedagogical developments in a way that cohered several core pedagogical values (see Chapter Five, Figure 1). This process has been presented in a form (Chapters Four and Five) that has relevance both for contemporary educators and for the futures of cultural pedagogical practice.

2. Research Limitations

Perhaps the greatest limitation of this dissertation stems from the vastness of the territory that it has attempted to introduce, discuss, analyse and cohere. The dissertation is macrohistorical in its temporal dimensions and planetary in its spatial scope. It attempts to theoretically embrace both conceptual breadth and depth of understanding. As Wilber (2000) says about such projects, including his own, they “are marked by the many ways in which they fail. The many ways in which they fall short, make unwarranted generalizations, drive specialists insane, and generally fail to achieve their stated aim of holistic embrace” (p. xii).

A substantial limitation is that this dissertation has set out to research a substantive area that is emergent. This has presented several challenges: firstly, there is not an already established single body of literature that can be accessed; secondly, literature searches needed to be enacted at the leading edge of multiple fields to try to uncover relevant literature; and thirdly, it is a very generative area in which new literature is appearing every day across and beyond multiple fields and it is impossible to include and cohere it all.

In addition, I have attempted to sufficiently encapsulate the key features of Steiner’s and Wilber’s vast opera to be able to bring them into conversation with each other and with the third strand of Gebser’s structures of consciousness. This was clearly a highly ambitious undertaking.
for a doctoral dissertation, and inevitably it must rely on my own interpretation of their works in respect of the fragments that I chose to represent them. There are limitations to any interpretative representation of another’s work, but this is accentuated when the work is so vast in scope. An approach to evaluating the rigour of my interpretations is elaborated below.

Another limitation is related to the transdisciplinarity of my approach. Paradoxically, a topic such as evolution of consciousness benefits from being approached in a transdisciplinary manner. However, from the perspective of disciplinary specialisation the result may appear superficial or inadequate. Other limitations included issues of language translation in several of the texts, my inability to access literature in languages other than English, and the time constraints of a doctoral project. A number of specific challenges arising from incorporating publications were already identified in the Prologue.

Finally, this dissertation endeavours to integrate and cohere so many approaches and crosses so many established boundaries that it runs the risk of being difficult to evaluate according to any already established evaluation criteria. Consequently, I now proceed to an evaluation section, which addresses this issue.

3. Evaluation of the Research

Reality (being) and knowing are coconstitutive. We can perceive and know only that for which our sensitivities have prepared us, and these sensitivities depend on aspects of our being... continual, dynamic interplay among research, practical application and personal development loosens and dissolves boundaries among these three areas ... in an endless cocreative, dialogic dance. (Braud & Anderson, 1998b, p. 22)

How does one evaluate “an endless cocreative, dialogic dance?”

The postformal, innovative nature of this dissertation does not lend itself to easy evaluation using formal methods. Consequently, I have approached the self-evaluation of my research creatively, to be consistent with the bricolage of my project. I use two broad approaches through which I self-evaluate the dissertation. The first uses three external sets of criteria developed in other kindred research and the second uses three sets of criteria that I developed in this dissertation.
3.1 Evaluating the Research using External Criteria

While there are clear, well-recognised criteria for evaluating the reliability and validity of empirical research, the contestation about the very terms reliability and validity in post-positivist research leads to a diversity of forms of evaluation loosely linked to types of methodologies. The situation with regard to evaluating a postformal conceptual or philosophical dissertation is potentially even more complex once it moves outside a particular type of philosophy such as analytical, or poststructuralist, to embrace philosophical pluralism. Although there are various claims— albeit contested— as to the meaning of the terms postformal and integral, to my knowledge, no systematic measures have as yet been developed to evaluate the postformality or integrality of a piece of scholarly research. I have however uncovered criteria for evaluating: the quality and rigour of interpretation in bricolage (Kincheloe & Berry, 2004); standards for good transdisciplinary scholarship (Wickson, Carew, & Russell, 2006); and criteria for researching consciousness from the perspective of an extended science (Braud & Anderson, 1998a). These approaches to evaluation are all aligned in significant ways to my research and may thus throw light on the rigour and scholarship of this dissertation.

3.2.1 Criteria for Evaluating Interpretive Claims in Bricolage

Kincheloe refers to the centrality of interpretation in bricolage, and the challenge for bricoleurs of choosing and justifying their particular interpretations from the multiplicity of possible perspectives. He lists eleven “principles of selection” that bricoleurs may include to ensure the rigour of their interpretations (Kincheloe & Berry, 2004, pp. 110-102). Ten of these resonated with my own principles of discernment and based on these I can justify the quality of my interpretive claims in the following ways. My dissertation:

- provides “a richer insight” into evolution of consciousness than many other texts on this topic;
- “constructs an interconnected and cohesive portrait” of the evolution of consciousness;

25 While Wilber may claim that his AQAL framework is such a measure, this is a contested claim. Another approach to integral research is more generic “research… is called integral because its aim is to be as whole and inclusive as possible” (Braud, 1998, p. 58). I have not found either of these approaches to evaluation helpful, the first being too prescriptive, the second being too vague.

26 The eleventh of Kincheloe’s principles is applicable primarily to field research.
• “grants access to new possibilities of meaning” and “raised new questions” that will “help in the construction of future insights;”
• “fits the phenomenon under study” through my engagement with adaequatio (see also below);
• “accounts for many of the cultural and historical contexts” in which my research is situated;
• takes into consideration “previous interpretations” of the evolution of consciousness, and other aspects of my research through extensive engagement with the literature;
• “generates insight gained from the recognition of the dialectic of particularity and generalization, or wholes and parts.” This is a central feature of my research perspective, as is the use of the “hermeneutic circle;”
• “indicates an awareness of the discourses, values and ideologies that have shaped it.” This is made explicit in my contextual self-disclosure of biases in Chapter Three (pp. 39-41);
• is inclusive of “perspectives of multiple individuals coming from diverse social locations” in particular “subjugated knowledges.” The latter is emphasised through my focus on the significant contributions of the marginal approaches of Steiner, Gebser and Wilber (Chapter Three), and also the voices of youth (Chapter One);
• finally, with regard to my pragmatic interest in transforming cultural pedagogical practice it is my hope that my dissertation “catalyses just, intelligent, and worthwhile action.”

This list of criteria developed by Kincheloe is reassuringly consistent with the type of knowledge I have produced through my use of bricolage. It also reflects the care and rigour with which I carefully considered the interpretive claims that I have made in this dissertation.

3.1.2 Criteria for Evaluating Transdisciplinary Scholarship

There is an emergent academic movement towards developing criteria for evaluating transdisciplinary research. One approach has developed a set of criteria for good scholarly transdisciplinary research by adapting a standard for good scholarly research developed by the Carnegie Institute for Learning and Teaching (Wickson, Carew, & Russell, 2006). I have summarised Wickson’s approach in Table E1.
Using Wickson’s model for evaluating transdisciplinary scholarship, I suggest that my research could be considered good transdisciplinary scholarship according to these criteria. My research goals were critically “responsive” to several planetary crises; I accessed and integrated “broad theory”; my methodology of bricolage was “epistemologically integrative and evolving;” there were numerous significant theoretical outcomes; I hope that my communication is effective but that will be up to the readers to judge; communal reflection in my case has taken the form of external peer-review of my chapters before they were published.

3.1.3 Criteria for Researching Consciousness from Extended Science

In 1992 a set of criteria was developed at an International Symposium on Science and Consciousness held in Athens. The findings of the conference were summarised by physicist and Nobel Laureate, Brian Josephson and biophysicist, Beverly Rubik (Braud & Anderson, 1998b, p. 9). Josephson and Rubik listed eleven criteria, which the Symposium regarded as appropriate in
regard to undertaking research on human consciousness within the context of an *extended science* (pp. 14-15). My research approach resonated with most of them in the following ways:

- consciousness should be studied "subjectively" as well as in terms of "objective data" (this is found in my *subjective-objective* approach— see Prologue);
- science as currently practiced would be extended to include "the humanities and the arts" and possibly including insights from "spiritual or religious practices" (this is reflected in my transdisciplinary epistemology— see *Metalogue*);
- "science cannot be divorced from philosophy" (clearly this view is central in my research);
- we need to move from the "conventional fragmentary approach" of reductionism “to principles of complementarity and integration, from ‘either/or’ to ‘both/and’ thinking” (my postformal logics— see Prologue);
- the insights of science are “context dependent” and “all approaches to reality are relative.” “The importance of intuition as a contributing factor [to] knowledge advances needs to be fully acknowledged” (intuition is one of my research processes— see *Metalogue*);
- quantity needs to be balanced with “the qualitative aspects of being and feeling” (clearly a factor throughout my research);
- the scientific attitude of arrogance has fostered “dogmatism and scientism.” This needs to be replaced by “humility... awe, wonder and delight in the cosmos ... [and] reverence for nature” (this is reflected in my emphasis on critical reverence, and the place of awe and wonder in education— see Chapter Five);
- studies on consciousness must acknowledge “the inherent wholeness and unity of body/mind” (see Chapter Three, p. 111);
- an extended science of consciousness would have "conscience"... “a science for the integrity of both people and planet ... translatable into action” (this relates to my critical planetary perspective and interest in cultural pedagogical practice).

My research on the evolution of consciousness can be clearly contextualised within the rigour of this approach to studying consciousness within an *extended science*.
3.2 Evaluating the Research using Internal Criteria

Because this dissertation has broken new conceptual ground in so many areas, at various points along the way, I have needed to theoretically systematise some of my boundary crossing developments. At this final point in the dissertation, where I am undertaking critical self-evaluation before moving into closure, I am able to draw on some of those developments.

3.2.1 Criteria for Evaluating Postformal Research

The criteria that I have developed for theorising postformal research were articulated in detail in the Prologue. There was also substantial discussion of how my dissertation addressed each of these criteria, which will not need to be repeated here (see Prologue, Table P2).

3.2.2 Subjective Adeaquatio

The notion of adaequatio has been elaborated in some detail in the Metalogue. The objective adequacy of this research according to that notion was also discussed and is not repeated here.

Another dimension of adequacy is introduced in Braud’s (1998) approach to integral inquiry, whereby the researcher adds subjective discernment to their evaluative criteria. In this approach the researchers would also consider their own bodily, emotional, aesthetic, intuitive and pragmatic indicators, which together would “contribute to a measure of experiential adequacy of our research program” (Braud, 1998, p. 66). This is consistent with my participatory-integral approach whereby I am not satisfied unless my research feels intuitively sound, is aesthetically elegant, and pragmatically useful and thus subjectively adequate.

3.2.3 Internal Coherence: Revisiting the Dissertation Title

As discussed in the first page of the Prologue, the dissertation title is a seed-form of the research focus. For a revision of the key terms and their intended relationships in this research, the reader can revisit Figure P1 in the Prologue. It was also stated at the outset that the meanings of the key terms were to be understood as being in a complex interrelationship with each other, and that their meanings would become clearer as the dissertation unfolded. I do not intend to repeat in detail material that has been discussed elsewhere but to briefly recapitulate what may be relevant for the reader to assess whether the dissertation has completed the tasks it set out to
fulfil. Since the meaning of the title “Evolving Education” can only be understood in terms of the expanded subtitle, it is the latter that will be revisited here.

Postformal features identified by adult developmental psychologists were stated at the outset to include: complexity, contextualisation, creativity, dialectics, dialogue, holism, imagination, language awareness, paradox, pluralism, reflexivity, spirituality, values and wisdom. Other, partly overlapping, features were added when the educational research on post-formality was introduced: etymology, pattern, process, contextualisation (a more extended elaboration of these can be found in the Metalogue, Table M2). In addition, arising from the hermeneutic process of my own research, which was not limited by the disciplinary constraints of psychology or education, I have identified several additional features that I suggest are indicative of postformal thinking, including: cosmopolitanism, criticality, ecological awareness, empathy, hope, presence, reverence and a stronger emphasis on imagination (see Chapters Three, Four and Five). As indicated earlier, I also view the postformal dimension of my approach as reflecting a developmental and thus futures-oriented dimension. It has been my intention to enact the multifaceted nature of postformality in my research to the extent that it feels authentic and appropriate. It is up to the reader to assess the extent to which my research gaze has enacted postformality, as intended.

Integral theory is in its infancy, and a major interest in this dissertation was to ensure that the term integral retains its noospheric diversity and does not become dominated by any one particular approach to integral theory, such that it loses the inherent integrality of its meaning. I would not attempt to define the word, nor to pin it down to any lineage. I do not need to repeat here the numerous ways that I have enacted an integration of integral views for the purpose of disseminating my proposition that integral needs to remain open, in all its endeavours towards unity. Only in this Epilogue, have I finally taken a step to bring some closure to my own conceptual contribution to integral theory, through my mosaic of macro-integral, meso-integral, micro-integral, participatory-integral and transversal-integral. I will leave it to the reader to assess the extent to which my research gaze has enacted integrality, as intended (see also Chapter Three, p. 133).

The planetary consciousness literature has enabled this dissertation to take its critical, morally-responsive stand, which is not inherently built into the postformal or integral literature. I have taken a polysemous interpretation of planetary, drawing in various threads that take this view. My main interests have been to highlight critical, planetary enviro-ecological perspectives
and also culturally pluralist perspectives—though the latter is seriously hampered by my Anglo-
monolingualism. Also I view the planetary emphasis in my nomenclature to contribute to ensuring
noospheric diversity within integral theory, which is strongly American-centric so far. My dissertation also contributes significant new research in the area of re-conceptualising the notion of space (see Chapter Three, Appendix B, p. 131). Whether my research gaze has been as planetary as I intended is for the reader to judge.

My use of gaze was motivated by numerous factors, but most strongly by my requirement to find a term to describe my research activity that would reflect the depth of observation that I intended to apply. I set myself the task of stretching this term to its maximum polysemous richness. The term gaze carried for me the aesthetic, the phenomenological/contemplative and the participatory dimensions, as reflected in Goethean phenomenology. It also expressed something of the subjective-objective nature of my approach in that the object of my gaze, the evolution of consciousness, was also influencing my subjective reflexivity, through my own conceptual evolution as I hermeneutically circled around in the research process. I would also like to think that the intimacy with which I gazed at the phenomenology of other research would bring my readers into an intimate relationship with the content and its unfoldment, my conceptual development, and with the care and enthusiasm with which I have enacted my research. I suggest that my gaze reflects the participation of my whole being in the research, enacting my own evolution in the process.

The evolution of consciousness is not new. My dissertation shows evidence of significantly new ways of thinking being enacted all around us. Dramatic changes to the way we perceive and think about “reality,” the way we “language” what we think, and the ways we think about and arrive at “knowledge,” have been occurring for over a century. The full potential of these developments have not been felt widely because these discoveries have been sequestered away in disciplines (science, linguistics, philosophy). My research indicates that the leading edge of research in all the disciplines and fields that I have explored is moving rapidly, and slowly but surely the growing tips are beginning to sense and touch each other. The sudden flourishing of interdisciplinary and transdisciplinary approaches could potentially see the end of the dominance of disciplinary specialisation in a matter of years. As more researchers begin to work at the boundaries, gather threads, observe patterns, and weave them together as this dissertation does, the structural transformations to our notions of knowledge and how we learn could be dramatic.
There are significant educational imperatives of the new ways of thinking that have been discussed in this dissertation. The fundamental structures of how we educate are built on foundations that are shifting—ecologically, socio-culturally, psycho-spiritually and cognitively. When the ways we think about reality, the ways we constitute knowledge, and the ways we conceptualise and language the world around us begin to dramatically shift, it is unrealistic to think that university and school structures can remain fixed and resistant to these changes. From a futures-oriented perspective multiple emerging issues are likely to arise in education as educators begin to address the implications of the new ways of thinking. This will require significant reorganisation of the way we traditionally educate. This dissertation has created many conceptual openings, woven many previously separate threads together, and offers many ideas to educators that may smooth the transition to radically different futures of education. My primary hope is that it will be received into educational discourse in ways that open up multiple new conversations.

4. Potential Portals for Future Inquiry

[The human being] is not a passive onlooker in relation to evolution, merely repeating in mental pictures cosmic events taking place without his[her] participation; [s]he is the active co-creator of the world-process, and cognition is the most perfect link in the organism of the universe. (Steiner, 1891, para. 5)

This research has opened up many more questions than it has answered, several of which have been indicated throughout the dissertation. Further inquiry is needed in all aspects of this research: the evolution of consciousness; the diverse features of the new consciousness; disciplinary and methodological implications of the emergence; and particularly the implications for education. This section will briefly summarise a selection of potential portals for future inquiry under these four broad themes.

The evolution of consciousness:

• the relationship between evolution, involution and emergence. This is the subject of a further paper (Gidley, 2008);
• the possibility of mutual influence between Steiner’s and Sri Aurobindo’s notions of integral evolution of consciousness;
• research into the relationships between astronomical cycles and evolution of culture and consciousness.
The diverse features of the emergent consciousness:

- more thorough genealogical study of integral theory and its diverse lineages;
- more extended research on the features of postformal thinking;
- deeper research on the potentially significant role of imagination in facilitating the awakening of other postformal reasoning features;
- further exploration of the relationships among intuition, imagination and living thinking;
- further scholarly research on the contributions of Steiner and Wilber to counterbalance the weight of non-academic discourse.

Disciplinary implications of the emergent consciousness:

- the evolution of philosophy to take into account the emergence of postformal-integral-planetary consciousness;
- research into the philosophical contributions of Nietzsche and Steiner to an earlier German strand of proto-postmodernism prior to French postmodernism;
- the evolution of science, in particular, extending the application of adaequatio with respect to the distinct qualities of the human being that cannot be adequately researched using the epistemologies of physics and biology;
- the re-integration of macrocosm and microcosm, e.g., the notion of paradoxical thinking at the macrocosmic level;
- further theoretical development of the ideas opened up in Appendix 1 of Chapter Three, on multiple conceptions of time, including histories and futures;
- extended consideration of the postformal conceptions of noospheric space introduced in Appendix B of Chapter Three;
- the evolution of psychology, incorporating integral psychology models (Chapter Two);
- the evolution of language through the lens of postformal-integral-planetary consciousness, particularly the renewed role of poetry as highlighted by Steiner, Gebser, Morin and Nicolescu, including integral academic writing;
- further research on Steiner’s and Gebser’s contribution to poststructuralist linguistic theory and development of ideas on language evolution in Chapter Three, Appendix C;
Methodological implications of the emergent consciousness:

• consideration of the implications of emergence theory for academic research;
• further theoretical development of postformal research as a form of inquiry;
• further research into intuition as a research methodology, including a deeper exploration of the apparent relationship between Steiner’s intuitive, spiritual-scientific research methods and Laszlo’s Akashic field.

Implications of evolving consciousness for education:

• substantially more research could be undertaken on the implications of the evolution of consciousness for education, as so little has been done in this area;
• a number of additional potential educational research areas have also been suggested on the basis of a Wilberian four quadrants analysis of the application of futures studies in school education (see Appendix 4, pp. 265-267).

5. Closing Reflections

The frontiers of a book are never clear-cut: beyond the title, the first lines and the last full stop, beyond its internal configuration and its autonomous form, it is caught up in a system of references to other books, other texts, other sentences: it is a node within a network... The book is not simply the object that one holds in one’s hands... Its unity is variable and relative. (Foucault, 1974, p. 23)

I find Foucault’s words to be an apt characterisation of my research. My dissertation is “a node within a network.” It takes a line of flight through a transdisciplinary network of narratives, leaving openings for further development in multiple directions. In this closing section of my dissertation, the Epilogue, I have summarised my research from the dual perspectives of unity and diversity, and provided a coherent picture of how I have theoretically integrated them as original contributions to knowledge. Then having considered the limitations of my research, I evaluated it according to both external and internal criteria. Finally, I identified a multitude of new questions arising from my research that could increase understanding of the evolution of consciousness and its educational imperatives. Whether the reader agrees that this dissertation has contributed new knowledge depends largely on their particular view of the concept of knowledge.

The terms knowledge society and knowledge economy have become new buzz-words for politicians claiming to be interested in raising the status of education. However, I suggest that unless our concepts of knowledge are sufficiently informed by the diverse emergent features of
postformal-integral-planetary consciousness that have been identified in this dissertation, we may continue to promote outmoded forms of knowledge through outmoded models of education. Such a retrograde movement can already be observed in the educational audit culture (MacLure, 2006) and the neo-fundamentalist agenda of educrats seeking to narrow the criteria for what constitutes “evidence” in “evidence-based educational research” (Coryn, Schröter, & Scriven, 2005; Norman Denzin, 2005). The push and pull effect of this government-driven backlash against methodological pluralism in qualitative research, and the counter-response from qualitative researchers to strengthen the pluralism of their approaches, is referred to as the “fractured future” of research (Norman Denzin & Lincoln, 2005). The dualism inherent in this pendulous movement does not auger well for educational futures. As this research demonstrates, dualism itself is a feature of the outmoded thinking that needs to be transcended. As this research has intimated, this deep epistemic shift of consciousness from the formal logic of Cartesian dualism to an embrace of the postformal logics of dialectical and dialogic thinking requires a complex and comprehensive reconfiguring of “how we think” and “how we know.” How we begin to enable this shift in humanity is a major responsibility of present and future educators. The urgency for these new knowledges to be incorporated into educational theory and practice is implied in my phrase “educational imperatives.”

From the broadest perspective, this dissertation makes a significant contribution to healing the dualistic rifts implied in Denzin and Lincoln’s “fractured future” with respect to educational research (Norman Denzin & Lincoln, 2005, p. 1123-1124). It brings the discourse of education into dialogue with leading-edge theories on the evolution of consciousness with the aim of transforming cultural pedagogical practice so that it begins to reflect the emerging global systemic shift from modernist, formal thinking, to postformal-integral-planetary consciousness. Like the new kind of thinking that Morin identifies, my contributions to knowledge in this research are polycentric.

This dissertation arises from “the periphery of knowledge” and enacts a complex multivocal dialogue that weaves among “formal knowledge” “emergent knowledges” and “peripheral/marginal voices.” It applies a futures lens to evolutionary narratives; listens deeply to the voices of young people; privileges previously marginalised integral evolutionary narratives; identifies an emergent global systemic shift in consciousness; recognises its role in stretching the boundaries of thought that have limited our capacity as a species to adequately deal with the complex problems that we have created; reveals and coheres features of this new movement of
consciou

sness; enacts it in the research process; creates a dialogue between thematic threads of the evolution of consciousness discourse and the diversity of emerging postformal pedagogies; distils what arises from the intersection; translates it so it has meaning for the community of cultural pedagogical practice; and proposes a new educational philosophy that balances excessive scientism by honouring the soft technologies of love, life, wisdom and voice/language as significant pedagogical values for educational futures that nurture evolving consciousness.

References


**Coda**

I end this dissertation as I began, with two quotes: one from a French philosopher (Edgar Morin) and one from an American-British poet (T. S. Eliot). Both reflect the paradoxical thinking at the heart of postformal-integral-planetary consciousness.

The very term polycentric in Morin's philosophy is a paradox—a koan. His universalism embraces unity/diversity and his finality has a future. Eliot’s poetic fragment implies Gebser’s concretion of time and perfectly expresses Morin’s philosophic notion of complex recursion. Morin’s philosophy is as poetic as Eliot’s poetry is philosophic.

The new consciousness will be best expressed through poetry—a new kind of poetry that seamlessly emerges through the embodied scientific-philosophic creation of new concepts.

My closing gesture with these two quotes is also an opening towards the future—towards a paradoxical mind-heart-reasoning where the boundaries between science, philosophy and poetry dissolve and recreate themselves as the planetary crises begin to be understood and attended to through postformal-integral-planetary energies.

"Our planet requires polycentric thought that can aim at a universalism that is not abstract but conscious of the unity/diversity of the human condition: a polycentric thought nourished by the cultures of the world. Educating for this thought is the finality of education of the future, which in the planetary era should work for an earth identity and conscience" (Morin, 2001, p. 52)

"We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time"
(T. S. Eliot, Little Gidding)
APPENDICES

APPENDIX 1: The Youth Problematic
Gidley, J. (2002). Global Youth Culture: A Transdisciplinary Perspective

APPENDIX 2: Introduction and Critical Review of Steiner and Wilber

APPENDIX 3: An Educational Application of Steiner’s Philosophy
Gidley, J. (In Press). Beyond Homogenisation: Do Alternative Pedagogies such as Steiner Education have anything to offer an Emergent Globalising World?

APPENDIX 4: An Educational Application of Wilber’s Integral Theory
Appendix 1

The Youth Problematique

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Chapter removed due to copyright restrictions pp. 486-503.
Chapter viewable online via Google Books: http://books.google.com.au

[Appendix 1 covers dissertation pages 486-503 inclusive]
Appendix 2

Introduction and Critical Review of Steiner and Wilber

[Appendix 2 covers dissertation pages 505-525 inclusive]
Rudolf Steiner: Integral Evolutionary Philosopher, Macrohistorian-Futurist and Spiritual-Scientist

Steiner and his Context

Rudolf Steiner was born in Hungary to Austrian parents in 1861, and after a childhood spent largely in Austria moved to Vienna to complete his Doctorate at Rostock University on: Truth and Knowledge: The Fundamentals of a Theory of Cognition with Special Reference to Fichte's Scientific Teaching (Steiner, 1891). He spent much of his adult life working in Germany until 1913, just before the outbreak of the First World War, when he moved to Dornach in Switzerland, where he commenced the building of the first Goetheanum. Although he lived in Dornach for the rest of his life until his death in 1925, he spent much of his time both before and after this move travelling and lecturing extensively throughout Europe.

In the mode of a ‘Renaissance universal man’ Steiner was a scientist, philosopher and artist. Also a futurist, he had a macrocosmic perspective on time in relation to the evolution of human consciousness. With great foresight he initiated many significant cultural and social projects, which are still active throughout the world 100 years later—in education, agriculture (bio-dynamics), architecture, medicine, social justice, community development and the arts. His writings are published in approximately forty books, including essays, plays, verse and autobiography. His collected lectures make up over 300 volumes. From 1888 to 1924 he gave a total of 4,941 lectures on a wide variety of themes in 96 European cities within 17 countries. His complete corpus covers almost every imaginable theme, including art, history, religion, education, evolution, natural and hermetic sciences, psychology, physiology, social and community development, agriculture and medicine.

1 For further contextualisation of Steiner’s life, see Chapter Three (pp. 37-39).
2 Statistics about Steiner and his contribution are available through the Rudolf Steiner Archive. http://www.rsarchive.org/el.lib/
Introducing Steiner’s Spiritual Science (Anthroposophy)

The primary terms Steiner used to refer to his work were spiritual science, anthroposophy, systematic noetic investigation and neutral monism, depending on the context (Steiner, 1894/1964, 1970). Steiner used the German term Geisteswissenschaft that can be translated into English as social sciences, humanities, sciences of mind or spiritual sciences. It would appear that the latter was Steiner’s intention though his meaning needs to be considered within the nuancing of its broader German context. The term anthroposophy is derived from the Greek anthropos meaning human being, and sophia meaning ‘wisdom’ and generally meaning female or creative wisdom. To use Steiner’s own words (or rather an English translation of them):

Anthroposophy is a path of knowledge, to guide the Spiritual in the human being to the Spiritual in the universe. It arises in man as a need of the heart, of the life of feeling: and it can be justified in as much as it can satisfy this inner need...

... There are those who believe that with the limits of knowledge derived from sense-perception the limits of all insight are given. Yet if they would carefully observe how they become conscious of these limits, they would find in the very consciousness of the limits the faculties to transcend them. The fish swims up to the limit of the water; it must return because it lacks the physical organs to live outside this element. Man reaches the limits of knowledge attainable by sense-perception; but he can recognise that on the way to this point powers of soul have arisen in him – powers whereby the soul can live in an element that goes beyond the horizon of the senses. (Steiner, 1973, pp. 13-14)

Steiner’s Sphere of Influence in my Work

I first heard of Steiner over thirty years ago when a friend interested in biodynamic agriculture lent me the book Theosophy (Steiner, 1971). I tried to read it but at that time I found it inaccessible. A few years later I participated in some interpretive seminars on the book Theosophy, which assisted my comprehension, thus beginning one of the most formative and stimulating relationships in my life—my relationship with Steiner’s writings and inspiration. In 1983 I founded the first Steiner school in a particular rural region of Australia, which was followed by several others. From 1984 to 1994, I pioneered the development of this school. Subsequently I undertook a research Masters based on Steiner education to integrate academically what I had experienced and understood intuitively. Articles have been published on this research, which has been briefly mentioned in Chapter One (Gidley, 1998, 2002).

My dissertation has been inspired by both the light of Steiner’s work, and the shadow of its reception. I note its enormous potential contribution, and also the eerie silence of its marginalisation in the academy and mainstream education. My awareness of both led me beyond Steiner to explore other potential kindred approaches. My current research is an integration of several approaches, though clearly Steiner’s work has been a central influence in my philosophical view. Although I never had the pleasure of meeting Rudolf Steiner, having been born some decades too late, I can only imagine what a powerful energy he must have exuded. The intensity and amount of work he achieved in his relatively short lifetime almost defies belief. His life’s work has inspired my own for the over 25 years.

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3 See also Metalogue, Note 34.
4 This is clearly a Hegelian insight as discussed in the Metalogue.
Challenges of Research based on Steiner’s Work

There are a number of challenges in undertaking research with Steiner’s writings.

- Steiner was alive and working approximately 100 years ago so the socio-cultural and even psycho-spiritual context was very different from today (see Chapter Three, pp. 37-39, for more discussion of Steiner’s context).
- His writings were originally written or delivered in German and many of them have still not been translated into English (and I do not speak or read German).
- Although Steiner did write a substantial number of actual authored books the vast majority of his available work is actually based on shorthand transcripts of his lectures, many of which he never had time to revise.
- Access to Steiner’s writings is not always easy, particularly in Australia. Original texts of rare lectures need to be ordered from the UK or Germany, some of them only becoming available second-hand when somebody dies. Also, the copyright has now ended, so one is not always certain about the authenticity of books published in recent decades.
- Furthermore, most of his actual work is not indexed so can be difficult to source (see Chapter Three, pp. 180-81, Note 11, for more information on this challenge).
- Because of numerous mythic claims made—by both proponents and opponents—about things Steiner has supposedly said, I have endeavoured in this research to remain close to Steiner’s own work rather than the secondary literature about him (which has gone through its own hermeneutic) or the myths about his work.
- The content and form of his writings (in particular his lectures) were very context related. He presented things quite differently depending on whether he was speaking to the general public or to a close circle of his students already familiar with his basic teachings. He was also cognisant of the local geography and socio-cultural characteristics of the people he was speaking to as this was often referred to in his lectures. He was conscious of issues relating to the times when he spoke, such as what was going on in the outside world, e.g., the First World War. Sometimes he would say it was too soon to speak about certain things, whereas later he would introduce them. It has been impossible to be fully cognisant of all these contexts when citing his work.
- Although Steiner completed a Doctorate in 1891, much of his lecturing was enacted outside the academy in private circles of students or in the public sphere.
- Another challenge of including Steiner’s spiritual-scientific research is that the contemporary field of consciousness studies is rather narrowly focused on the disciplines of philosophy, neurobiology and cognitive science. By contrast, an understanding of consciousness aligned to Steiner’s research includes at least: phenomenology, spirituality, cultural history and anthropology, heuristics, hermeneutics, aesthetics, ethics, and transpersonal psychology.
- Steiner’s writing is generally regarded to have occurred in two major phases. In the first phase until approximately 1904, he primarily wrote from a purely philosophical or natural scientific perspective. In the second phase, he claimed to be speaking and writing from his intuitive spiritual research. These phases are described by Fritz C.A. Koehn in the introduction to Steiner’s book *The Riddles of Philosophy*, first published in 1914.

It is indeed significant that the anthroposophical works appear only after a long period of philosophic studies. A glance at Rudolf Steiner’s bibliography shows that it is only after twenty years of philosophic studies that his anthroposophy as a science of the spirit appears on the scene. (Steiner, 1901/1973, p. viii)
Considering Critiques

One of the most striking issues surrounding Steiner’s prolific—albeit heterodox—contribution to so many fields of knowledge in the early 20th century is not that there is a discourse of academic critique but rather that there is such a relative lack of response, other than from proponents of Steiner’s approach. Gregory Bateson reputedly said: “lack of response is a significant piece of information (rather than no information).” Philologist, Owen Barfield claimed that resistance to Steiner has been a “combination of a refusal to investigate with a readiness to dismiss.” A German reviewer has noted that in relation to discussion of Steiner’s pedagogy in educational circles, there has been a “paradox of practical acceptance and theoretical ignorance” (Ullrich, 2000). British psychotherapist, Richard House, has summed up this marginalisation of Steiner’s vast contribution to knowledge, in a recent interview for EJ OP: Europe’s Journal of Psychology:

In the History of Ideas, one of the most abiding mysteries of the twentieth century is just how one of its most inspired, original and wide-ranging thinkers and seers – Steiner - is so comparatively little recognised, or even known of, in the range of disparate fields on which he has had, and continues to have, such a profound influence.” (Popescu, 2005)

In addition to marginalisation by the academy, integral theorists, from Sri Aurobindo to Gebser, to Wilber have also overlooked Steiner’s substantial contribution to integral evolutionary philosophy and transpersonal psychology. This of course raises the issue of how and why certain integral theorists have become “canonized.” In a similar way to the marginalisation of philosophers such as Julia Kristeva, circulation of some integral works “by constant repetition and critical gloss is obviously essential” (Orr, 2003, p. 7). The marginalisation of Steiner in the integral movement has been addressed in detail in Chapter Three. Speculation as to why Steiner’s work may have been so systematically ignored by the academy for almost a century will be considered below. I will first briefly address the scholarly reception of Steiner’s work that I have uncovered that may have relevance to my work, according to the following criterion:

• Peer-reviewed academic articles, dissertations, or scholarly book chapters that critically review his writing on the evolution of consciousness, and/or education.

I have endeavoured to access scholarly critiques of Steiner’s work through database searches in addition to other less formal means. In addition, I will refer to my own scholarly critique of his writing on the evolution of consciousness and/or education (much of which takes place within this dissertation). I will not, however, consider non-academic, non peer-reviewed critiques (such as the articles and chapters published on various Steiner-related websites and blogs), or the extensive writing by proponents of Steiner’s work, the majority of which is non-critical and non-refereed.

Scholarly Critiques of Steiner’s Work

The following results were returned from several academic database searches (January, 2008) of the phrase “Rudolf Steiner” in Title or Abstract:

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5 This comment was attributed to Gregory Bateson, but no specific citation was given (Kremer, 1996, para. 2). It was not said in relation to Steiner.
6 Owen Barfield was a 20th century philologist whose writing influenced such key literary figures as C S Lewis, J R R Tolkein and T S Eliot, and others such as Saul Bellow and Morris Berman.
Blackwell Synergy Database: Four articles, two of which were relevant, including a discussion of Steiner’s occultism (Galbreath, 1969); and a comparison of Waldorf and Progressive education (Ensign, 1996);

JSTOR Database: Three articles, none of which were relevant to this research;

Proquest Dissertation Database: There were twenty-six dissertations (seventeen PhDs, three Doctors of Education and six MAs), with over half being completed in the last twenty years and only one prior to 1970. Of these, six were related to educational aspects of my research (Cavanaugh, 1990; Luft, 1976;Marshak, 1985; Okumoto, 1999; Riccio, 2000; Siegmeister, 1932); one was related to Steiner’s spiritual perspective of history (Foley, 1981) and two were concerned with contextualising aspects of his esoteric methods (Franklin, 1989; Galbreath, 1970). Although two of the educational dissertations referred to the significance of Steiner’s notions of organic thinking and knowledge—as demonstrated in my research—one of these studies critiqued current applications of Rudolf Steiner’s intentions (Riccio, 2000, Abstract).

Proquest Multiple Databases: Of the four results three were not relevant and the fourth was an educational overview by a proponent of Waldorf education (Uhrmacher, 1995);

Expanded Academic ASAP Database: Two results, neither being relevant to this research.

Because the standard database searches returned so few responses, some further searching was undertaken through additional networking channels including a scan of some non-refereed Internet sites that either critique or defend Steiner’s approach. While it is beyond the scope of this research to review and comprehend every debate on Steiner’s work, particularly that being enacted in non-scholarly fora, a perusal of the published material reveals a paradox.

A difficulty in adequately critically reviewing the scholarly substance of Steiner’s work is the very lack of scholarship on both sides of the debate. The lack of scholarly critique of Steiner is mirrored by a lack of academic scholarship in the extensive writings of proponents of Steiner’s philosophy and pedagogy. Although a great deal of material has been written about Steiner’s work by proponents, the majority has been published 1) by “inhouse Steiner Presses” with few exceptions (Lachman, 2007); or 2) by Steiner-affiliated organisations (such as the Goetheanum, Anthroposophical Associations, Steiner/Waldorf Schools associations, and/or Steiner Research Institutes). Furthermore, of the dozens of peer-reviewed articles by Steiner educators or affiliates that I have read, most are unrealistically uncritical. A recent development in the last ten years is that in response to the unscholarly online attacks on Steiner and anthroposophy, an online discourse of defence of Steiner has appeared which is no more scholarly than the former. What is required is a more scholarly engagement on both sides of this debate, as this research has attempted.

A number of themes emerged from the critiques of Steiner and his work:

7 A good example of the latter is the Research Institute for Waldorf Education, which promotes research on Steiner education and has produced a Research Bulletin, but one which does not appear to provide an independent scholarly peer-review process. Similarly the Pedagogical Section of the Goetheanum is a research organisation which supports research within Steiner schools but does not appear to be interested in entering into scholarly dialogue about Steiner’s philosophy or pedagogy within the wider academic community of peer-reviewed scholarship (Dorothy Prange, personal communication, Dornach meeting, September 12, 2007).
Steiner’s association with esoteric, spiritual, occult ideas.

Critics of Steiner will sometimes focus on the fact that he was a spiritual researcher and, particularly because of his early association with the Theosophical Society, link his work with theosophists such as Madame Blavatsky, Annie Besant, and Alistair Crowley whose methods Steiner distanced himself from. Richard House suggests two possibilities as to why Steiner’s work may have been marginalised. The first possibility according to House is related to Steiner’s “unashamed esotericism and explicit engagement with ‘the divine’ through his discipline of ‘spiritual science’” (Popescu, 2005). This issue was also noted by Barfield, who suggested that it may be the word occult—as used in the title of one of Steiner’s principal source books—that has played a great part in the rejection of Steiner by the academy. Barfield, cited in (Reilly, n. d.), suggested however that an objective scholarly approach to Steiner’s work would demonstrate that the word occult, as used by Steiner, “signifies no more than what a more conventionally phrased cosmogony would determine as ‘non-phenomenal,’ ‘noumenal,’ ‘transcendental.’”

Barfield also discussed the unfortunate confusion of meanings of the term occult, because of Steiner’s earlier association with the Theosophical Society. While the theosophical use of the term was based on a pre-rational, mystical, trance-like type of occultism, Steiner’s spiritual-scientific use of the term occult had a postformal, philosophical meaning as suggested by Barfield. Robert Galbreath provides a broader historical context for Steiner’s contribution to demythologising occultism. Galbreath points out that the “persistent presence of [occultism and mysticism] in European and American cultural life from the latter half of the eighteenth century to the present day is a noteworthy but still little explored facet of modern intellectual history” (Galbreath, 1970, p. 2). In this light, Steiner’s approach was a significant innovation in which “occultism could be a form of science, a spiritual science, equally as rigorous, systematic, and objective as the natural sciences, yet with the added advantage of being open to spiritual realities and capable of handling metaphysical questions” (Galbreath, 1970, p. 6). Steiner himself lists several features of what he meant by occult science, notably “While natural science remains within the sense world … occult science wishes to consider the employment of mental activity upon nature as a kind of self-education of the soul and it desires to apply what it has acquired to the realms of the supersensible” (Steiner, 1909/1963, p. 3). In this sense Steiner’s work is aligned to the cosmological realism of William James’ research into the “more” (Gitre, 2006) or indeed, to Deleuze’s notion of transcendental empiricism, in which “what we experience and should philosophize about is not what exists but what is still on the verge of happening,” cited in (Borradori, 2003, p. 871).

The “unscientific” or “mythic” nature of Steiner’s methods and/or theories

Any claims that Steiner’s theories are unscientific or mythic need to be viewed within the context of the previous point. Clearly there are languaging issues in relation to some of Steiner’s terms and diction as discussed in Chapter Three. However, claims that his writings are based on pre-rational, mythic or magical modes of thinking have clearly not adequately addressed or comprehended Steiner’s postformal approach to spiritual research (Ullrich, 2000) (see also Chapter Three, pp. 29-31). Such claims also need to be contextualised in a deconstruction of what

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* Galbreath also noted Steiner’s particular suitability to the task at hand: “Trained in the natural sciences with a doctorate of philosophy, editor of literary periodicals and of Goethe’s scientific manuscripts … Steiner was singularly well prepared for his self-imposed task of relating occultism to the needs of a secularised and industrialised mass society” (Galbreath, 1970, p. 4).
the term science means at different times and in different cultures. Recent transdisciplinary research has noted the different uses of the term science, between German-speaking Europe and America (Balsiger, 2004). Also, the emergent 20th century notions of levels of science based on adaequatio need to be addressed if an adequate understanding of Steiner’s spiritual science is to be attempted (Harman, 1988; Popper & Eccles, 1977; Schumacher, 1977) (see also Metatogue, Table M1).

Steiner’s radically integrative philosophy and holistic pedagogy were ahead of his time

Steiner’s integralism and his opposition to materialism and the dry intellectualism of modernity led to critiques in his day from upholders of the status quo. House suggests that Steiner’s “then quite unfashionable holistic approach to human experience was quite simply decades ahead of its time” (Popescu, 2005) and a reason for Steiner’s rejection by the mainstream academy in his time. House adds that Steiner’s “remarkable insights, which both incorporate yet also transcend modernity” are very relevant today to “so-called ‘new paradigm’, post-modern epistemologies and cosmologies [which] are thankfully beginning to undermine the Zeitgeist of modernity” (Popescu, 2005). By contrast another view is that Steiner pedagogy was actually very much a product of his time and was closely aligned to what emerged in 1919 as the New Education in Germany after the First World War, particularly Peter Petersen’s Jena Plan (Ullrich, 2000). It does appear, however, that the emerging support for Steiner’s work today is arising particularly from holistic educators (Marshak, 1985, 1997; J. Miller, P., 2000; Miller, 1990; R. Miller, 2000).

Steiner’s use of racial terminology in some of his evolutionary writings

Although this issue has been extant in some of the informal online debates around Steiner and his pedagogy, I did not intend to address it as I had not uncovered any scholarly approach to it. However, I have just uncovered a refereed journal article, which critiques Steiner’s work on this basis (Staudenmaier, 2008). Unfortunately I am not able to access many of the German sources that Staudenmaier utilises. However, it is evident from a reading of his article that he is strongly conflating Steiner’s own ideas with those of theosophists such as Madame Blavatsky and Annie Besant. Steiner actively disassociated himself with the Theosophical Society in 1912, and in particular with Besant’s racist and nationalistic claims. Steiner stated:

Today it is apparent that culture, instead of being borne by one specific leading race, spreads over all races. And it is by Spiritual Science that culture — a spiritual culture — must be carried over the whole Earth, without distinction of race or blood... If Theosophy is to keep faith with its good old principles — the first of which is to promote culture without distinction of race, colour, and so forth, it will not cherish groundless hopes of a future culture emanating from one particular race... It makes one's heart bleed that in England today [20th June 1912] the President of the Theosophical Society⁹ should be making speeches which really cannot be described as "theosophical" but are eminently political. (Steiner, 1948, Chapter 9, para. 17)

Because of this issue and the lack of scholarly response to it that has yet been possible, I suggest this as an issue for future research. I also note that an open discussion of the question of potential

⁹ In Footnote 3, to this paragraph, Steiner noted that “these words were spoken at the time when Mrs. Besant had founded the "Order of the Star in the East," with objects similar to those indicated here, and rejected by me” (Steiner, 1948).
racism in Waldorf schools in the USA has been held in the Waldorf Research Bulletin, concluding that any remnants of this issue are being actively addressed in Waldorf schools (Editors, 1998; McDermott & Oberman, 1996; Sloan, 1996). A related critique of Steiner’s philosophy is that it has a subtly colonialist bias in respect of how he referred to Oriental literature as a way of rejuvenating European thought (Myers, 2006). This issue is also a complex one and would require further research to establish its veracity.

The rigidity of application of Steiner pedagogy in contemporary Steiner/Waldorf schools

While this is actually a critique of the contemporary application of Steiner’s pedagogy rather than a critique of Steiner’s actual ideas, the two are often conflated. This is the substance of much of the informal critique of Steiner education and is also addressed in recent academic articles including my own research (Gidley, 2001, 2007; Miller, 1997; Riccio, 2000; Woods & Woods, 2002).

My Critique of Steiner’s Work

My own critique of Steiner’s work has been largely addressed in the body of the dissertation, particularly in relation to the density and complexity of his language, and the scattering of anachronisms in his text (Chapter Three, pp. 135-140). In relation to the difficulty that many readers and critics have reading Steiner’s work, a review of Foucault’s writing may throw some light. The following comment about Foucault’s work could equally be said about Steiner’s writing (substituting Steiner for Foucault, and German for French):

The density and complexity of Foucault’s work ... is a function of his writing style, our lack of knowledge of the French philosophy context, our inexperience of reading philosophy of any kind, the depth at which he worked, and the complexity that he was trying to address, much of which is counter to both the dominant thought and critical thought. (Scheurich & McKenzie, 2005, p. 845)

With regard to the German philosophy context, I suggest that Steiner’s German philosophy context was more similar to Hegel’s than it was to 21st century contexts. With regard to Hegel’s linguistic expression it has been noted: “Hegel conforms to the fashion of his day, which judged the profoundness of a thinker by his complicated way of expression” (Sarlemijn, 1971). I have elsewhere noted biases arising from Steiner’s cultural context (Chapter Three, pp. 37-39) and his somewhat contradictory statements in different contexts about chronology of early cultures (Chapter Three, p. 53). I have also addressed some critical points in relation to the interpretation and application of his writings in contemporary Steiner education (Chapter Four, pp. 127-128; and Appendix 3, pp. 10-11).

Although Steiner’s stated aim was to bring spiritual research out from the forum of secret societies and place it firmly on the footing of rational and scientific thinking, his achievements fell short of what he apparently hoped for. There remains in the Steiner movement, a degree of mythic secretiveness about his work. There are the remnants of a ‘closed society’ among some of the ‘more experienced’ or ‘knowledgeable’ among Anthroposophists, and people want to know whether you are ‘in’ or ‘out’ before they will disclose information. As an extension of this issue, people who are apparently more knowledgeable will often quote things that are supposedly said by Steiner without being able to say where they came from. In my view this pseudo-scholarship needs to be replaced by actual scholarship if Steiner’s work is to be taken seriously in the future.
Although Steiner wrote significant philosophical and scientific works during the 1880s and 1890s before he began his spiritual-intuitive research, he did not manage to make a successful bridge between his spiritual-scientific research and the academy during his lifetime. I suspect that his association with the Theosophical Society, and the ongoing conflation that many critics make in this connection, was perhaps a fatal error for the academic reception of his work in the 20th century. A challenge for the future for those academics and educators who see untapped potential in his work is to demythologise his writings and approach and disseminate his work in a more scholarly fashion. Ironically the same can be said of Wilber proponents as discussed below.

In summary, in spite of the relative ignorance of Steiner’s writing in most fields of academic discourse to which his work could make a contribution, arguably, he made a seminal contribution to the evolution of consciousness discourse with his integral evolutionary philosophy, and a seminal contribution to pedagogical theory and practice. Unlike most spiritual researchers and spiritually oriented philosophers, Steiner never lost sight of the relationship between his spiritual research and its application to the life-world. His life’s work was an integration of the unitive possibilities of advancing conceptual knowledge through philosophical thinking, disciplined self-development, and the application of advanced knowledge in the plurality of the life-world.

Justification for Selections and Emphases in this Research

Although Steiner’s written and transcribed oral work covers an extremely vast range of conceptual and spiritual ‘territory’, I am bounding this research within references to those texts which I have found relevant to the evolution of consciousness with a particular emphasis on current emerging developments of consciousness especially in regards to the implications of this for education. I have no doubt that there are also other texts available that I am not aware of that could be included, because of the sheer volume of his work.

References


Ken Wilber: Integral Transpersonal Philosopher and Post-Metaphysical Meta-Theorist

Wilber and his Context

Ken Wilber was born in Oklahoma City, USA in 1949 and lived in many places in North America during his childhood. He completed high school in Nebraska and undergraduate degrees in biology and biochemistry in Omaha. Although he completed a Master of Science, he opted for writing books, instead of finishing the doctorate he commenced. At time of writing he has published sixteen books on transpersonal psychology, philosophy, spirituality and science, with translations into several other languages. In addition to his books he has published at least 15 articles in peer-reviewed academic journals between 1979 and 2000. Journals have included: American Journal of Physics, Journal of Consciousness Studies, Journal of Humanistic Psychology, Journal of Transpersonal Psychology and ReVision: The Journal of Consciousness and Change.

One of my interests with Wilber is the vastness of the material that he has attempted to integrate and the sheer diversity of ideas and approaches that he has attempted to cohere into a meaningful system. I propose that his most significant contribution to 21st century academic thought is the visionary nature of his project and the inspiration that this could potentially infuse into numerous fields in a world that calls for integration. It would be the task of those working in the various fields to refine and hone the vision for their particular application.

Photograph of Wilber removed due to copyright restrictions.

10 For further contextualisation of Wilber’s life, see Chapter Three (pp. 37-39).
Introducing Wilber’s Integral Operating System (IOS)

The primary terms that Wilber uses to refer to his work at the present time are Integral Operating System (IOS) and AQAL. He explains: “In an information network, an operating system is the infrastructure that allows various software programs to operate. We use Integral Operating System or IOS as another phrase for the Integral Map” (Wilber, 2004, p. 4). The Integral Map or Framework is also referred to by Wilber as AQAL, which is an abbreviation for ‘All Quadrants, All Levels’ “which itself is short for ‘all quadrants, all levels, all lines, all states and all types’, which are simply five of the most basic elements that need to be included in any truly integral or comprehensive approach” (Wilber, 2005, p. 43). He elaborates: “These five elements are not merely theoretical concepts; they are aspects of your own experience, contours of your own consciousness...” (Wilber, 2004, p. 3). To use Wilber’s own words, from the Foreword by him in Ken Wilber: Thought as Passion:

The word integral means comprehensive, inclusive, nonmarginalizing, embracing. Integral approaches to any field attempt to be exactly that—they include as many perspectives, styles, and methodologies as possible within a coherent view of the topic. In a certain sense, integral approaches are ‘meta-paradigms,’ or ways to draw together an already existing number of separate paradigms into a network of interrelated, mutually enriching perspectives. (Visser, 2003, p. xii)

Wilber’s Sphere of Influence in my Work

I first heard of Wilber in the late 1980s and around 1990 I purchased and read Eye to Eye. I felt an immediate affinity with his work. It also resonated with my internalised knowledge system, based primarily on my long-term study and work with Steiner’s writings, but also enriched over the years with a broad study of what Wilber and others call the Perennial Philosophy. I have discussed Wilber’s socio-cultural context and my somewhat similar background in Chapter Three, Section 1 (pp. 37-39).

As I began to focus my doctoral research, I became increasingly drawn to Wilber’s work and in particular with the synchronicities and parallels with Steiner’s. Consequently my research and study of his integral framework and other aspects of his life and work have increasingly occupied my time and energy. As part of this process, I worked as a volunteer and later advisor with the Education Centre of his Integral University project. This is a challenging project with many ideas and few funds, but appears to have stalled at this stage.

In 2005, I was able to spend three months pursuing my research in Boulder, Colorado where I met Wilber several times and worked with many of his dynamic young staff. I heard him speak about his ideas and his work and although I cannot say that we engaged in dialogue, I did manage to exchange a few words with him. In spite of his ongoing, serious health challenges one can feel his sharpness and cognitive intensity each time he speaks. He also exudes a surprising degree of warmth and humour, especially in regards to himself—a powerful presence. The light, and shadow, of his contribution to a more integral worldview has significantly influenced my work.
Challenges of Research based on Wilber’s Work

There are several challenges in undertaking research with Wilber’s writings.

- A n unexpected challenge relates to working with a living philosopher who keeps writing new work and whose ideas keep changing, particularly since he has such a central interest in the evolution of consciousness.
- A secondary and related challenge is that Wilber has written a large body of work and in the process of its development, his ideas have evolved so that he refers to the various stages of his work as Wilber 1 to Wilber 5. This requires some evaluation of the relevance of his earlier work for my research.
- Another challenge of including Wilber’s integral approach to the study of consciousness, like Steiner’s, is that the contemporary field of consciousness studies is rather narrowly focused on the disciplines of philosophy, neurobiology and cognitive science. By contrast, an understanding of consciousness aligned to Wilber’s research includes at least the following eight methodologies: phenomenology, structuralism, hermeneutics, ethnmethodology, empiricism, autopoiesis, social autopoiesis and systems theory. In addition, transpersonal psychology and spirituality would be included.
- Wilber’s work can be rather deceptive if the reader does not recognise that Wilber is primarily a secondary source for other material. All the references he makes to other writers and thinkers are his interpretations of their works. His work is largely a summation, collation and organisation of other’s work. This is quite a significant feat, but reading Wilber is not a substitute for reading the original primary sources.
- Because Wilber is primarily a secondary source—something of a historian and geographer of ideas—a substantial amount of additional research into the primary sources he utilises is required for a scholarly evaluation of the veracity of his ideas.

Considering Critiques

There is no question that Wilber’s writing has generated a wealth of critique from within the broader transpersonal and integral community. Yet in the mainstream academy it seems as yet relatively unknown as he is rarely cited in academic databases. Although some of the critiques have been published in academic journals (particularly the transpersonal journal Re-Vision), much of the recent material takes the form of informal blogs or online articles published in non-refereed websites. In regard to the latter, a discourse has arisen around Wilber and between him and various critics that is highly polemical and at times abusive. Because this is not academically published material I will not refer to it in detail. However, I do suggest that this level of public discourse does detract from Wilber’s potential reception within the academic community. This issue has also been explicitly addressed in several scholarly articles that I am aware of (de Quincey, 2000; McDermott, 1996; Zimmerman, 1996). In spite of this unfortunate issue, I take the view that there is sufficient value in Wilber’s published work to use it as a major thread in my dissertation. I take the view that in and of itself critique and scholarly debate is not problematic but rather has the potential to deepen the work concerned, if the critique is addressed in a...
scholarly manner. I will briefly address scholarly critiques of Wilber’s work that I have uncovered that may have relevance to my work, according to the following criterion:

- Peer-reviewed academic articles, dissertations, or scholarly book chapters, that critically review his writing on the evolution of consciousness, and/or education.

I initially endeavoured to access scholarly critiques of Wilber’s work through database searches in addition to other less formal means. In addition, I will refer to my own scholarly critique of his writing on the evolution of consciousness and/or education (much of which takes place within this dissertation). I will not, however, consider non-academic, non peer-reviewed critiques (such as the articles and chapters published on Visser’s *Integral World*). Nor will I consider ostensibly peer-reviewed publications that merely provide an apologetis for Wilber’s theories, for example, some articles published in Wilber’s journal: *AQAL Journal of Integral Theory and Practice*, e.g., (Crittendon, 2007; Zeitler, 2007). I do not believe the latter serve a useful purpose in furthering integral theory in a manner suited to positive academic reception.

**Scholarly Critiques of Wilber’s Work**

The following results were returned from several academic database searches (January, 2008) of the phrase “Ken Wilber” in Title or Abstract:12

- Blackwell Synergy Database: nil response;
- JSTOR Database: nil response;
- Proquest Dissertation Database: Three PhDs, one Doctor of Theology and three MAs. Two of the seven dissertations bore some relevance to my research (Dunbar, 2000; Hamlin, 1991). Wilber’s privileging of Oriental over European traditions was noted as an obstacle in its likely reception as an educational theory in the USA (Hamlin, 1991). Dunbar investigated Wilber’s model of transpersonal stages of consciousness and his claim that it is scientific.13 Dunbar (2000) concluded: "Wilber’s model is not scientific according to any standard definition of the term in academic psychology or in mainstream science... Wilber’s low credibility in mainstream science is partially the result of his insistence that his work conforms to scientific standards" (Abstract).
- Proquest Multiple Databases: Seven results returned of which three were book reviews, and two were on topics not relevant to my research. Of the two remaining articles, one included a response to what were claimed to be misunderstandings by critics, and a very positive appraisal of the significance of Wilber’s “transpersonal theory [for the]... the psychology and spirituality of human development” (Fisher, 1997, Abstract). The other was a response by psychologist, Albert Ellis, president of the Institute of Rational-Emotive Therapy to what he called “Wilber’s (1989) diatribe against my [Ellis’s] objections to transpersonal psychology” (Ellis, 1989, p. 336). The latter is reflective of a type of polemical debate that Wilber’s later work seemed to attract.14

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12 I acknowledge that other key words may have returned more results and I have done other searches informally, however, it is difficult with integral and transdisciplinary work to ascertain which key words may be most productive.

13 László also regards Wilber’s “theory of everything” as being inadequate in terms of scientific theory and this critique has been discussed in more detail in Chapter Three (p. 111-112).

14 This is somewhat inconsistent with Wilber’s statement in the preface to the second edition of *SES*, that “in all of my first twelve books, stretching over two decades, there is not a single polemical sentence” (p. xxiii). Apparently, based on Ellis’s comments this lack of polemic was not the case in all of Wilber’s published articles.
• Expanded Academic ASAP Database: Ten results returned two book reviews, one biography, some overlap with the previous results, and four articles that were summaries or applications of Wilber’s work by enthusiastic proponents.

Because the standard database searches returned so few responses, some further informal searching was undertaken through additional networking channels, including a list of criticisms of Wilber’s work published online on Integral World. This list and other informal sources revealed a number of other academic articles that critically appraised Wilber’s work. While it is beyond the scope of this research to review and comprehend every debate on Wilber’s work that has been published, a perusal of the published material revealed a pattern, perhaps reflective of shifts in the style of his writing.

There appear to be three phases of critique of Wilber’s writing—perhaps somewhat aligned to the three phases of his writing that I identify in Chapter Three (pp. 138-140) although this would require further research to ascertain.

1) Phase 1. The first wave of critique of Wilber’s work occurred in response to the first phase of his writing but included his 1995 publication of Sex, Ecology, Spirituality. Much of Wilber’s early writing phase, prior to 1985, was in the area of transpersonal psychology. Some transpersonal psychologists were strongly critical. John Heron (1996) claimed: “Wilber has presented no adequate validation for his account of the spiritual path [and] ... is putting a rational gloss on a hidden appeal to traditional authority” (para. 3). Other leading scholars in the field responded enthusiastically, with both praise for his overall contribution and detailed constructive critiques of aspects of his work (Feuerstein, 1997; Kelly, 1996; Washburn, 1996; Zimmerman, 1996). Michael Washburn (1996) began his “critical essay – by expressing [his] appreciation for the immense contribution [Wilber] has made to transpersonal theory” (p. 2). This wave of largely appreciative, critical appraisals appears to have reached a culmination in 1996 when ReVision: The Journal of Consciousness and Change devoted three special issues to a dialogue between Wilber and other transpersonal theorists. These dialogues were later published as an edited book (Rothberg & Kelly, 1998). The ReVision journal seemed to provide an important forum at that time for the discussion of Wilber’s and other transpersonal theories.

Many of these critiques focused on technical details of Wilber’s transpersonal theories, for example, his “pre-trans fallacy” (Washburn, 1996), his approach to “holarchy” (Kelly, 1996), “intersubjectivity” and “the mind-body problem” (de Quincey, 2000) and “perinatal dynamics” (Grof, 1996). Others focused on more general issues such as Eurocentrism (Kremer, 1996), his overstating—or underevidencing—of some of his claims (Heron, 1996; Zimmerman, 1996), and his polemical style (de Quincey, 2000; McDermott, 1996; Zimmerman, 1996). In terms of the ReVision dialogues, there was some dissatisfaction from participants in relation to the cursory and arguably defensive nature of Wilber’s responses to their critical feedback (Wilber, 1996a). It was claimed that Wilber showed a lack of engagement with the detail of particular critiques and relied too heavily on blanket statements such as “[x author] tends to misrepresent my [Wilber’s] overall model” (Kremer, 1996, p. 43). Wilber responded in an Afterword with a general apology if his responses were considered inadequate (Wilber, 1996b). One is left wondering whether this was an adequate substitute for a more substantial scholarly engagement with the critiques. By contrast, another dialogue that took place shortly after this time period was substantial and mutually respectful (Feuerstein, 1997) (See also Chapter Three, pp. 55-56).
2) Phase 2. After this wave of critique in ReVision from the transpersonal theorists, and Wilber’s arguably insufficient response to it, there was an apparent reduction in scholarly engagement and dialogue with Wilber’s work from these quarters, with some exceptions15 (de Quincey, 2000; Esbjörn-Hargens, 2001; Ferrer, 1998). In parallel with the reduction in academic transpersonal dialogue a new type of polemical discourse emerged, which has been enacted online through non-scholarly channels including self-published books and blogs, as discussed above. There has also been a scattering of articles taking up particular aspects of his theory, eg vision-logic (Cunningham, 2004).

3) Phase 3. Since 2005, although Wilber has reduced his book publishing output, he has been making moves to propagate his theories in the academic world, initially through his planned Integral University16 and later through joint ventures between his Integral Institute and two US universities (JFK and Fielding) to offer Masters degree courses in Integral Studies. In 2006, he commenced a journal called AQAL: Journal of Integral Theory and Practice, which is “peer-reviewed” according to strict AQAL principles with Wilber having the final word. It is debatable whether such a process constitutes adequate objective scholarship and I have critiqued a special issue of this journal on education in Chapter Five. Another significant academic development in the broadening of integral theory beyond Wilber’s AQAL occurred in 2005. The journal Integral Review: A Transdisciplinary and Transcultural Journal for New Thought, Research and Praxis was launched. This journal has created a new scholarly forum for dialogue, critique and new ideas on integral theories. One of the most substantial recent academic critiques of Wilber’s work has examined Wilber’s approach to postmodernism (Hampson, 2007). Although this article does not directly deal with the evolution of consciousness or education, it indirectly affects my claims about postformal consciousness, particularly in relation to postmodern philosophy. Hampson exposes the superficiality and inconsistencies in Wilber’s appraisal of postmodernism and also provides support for my research in relation to some of the features of postformal reasoning, such as complexity, criticality and creativity. Several other articles in this journal provide important critical appraisals of Wilber’s integral theory and significantly, offer alternative approaches to integral theory in addition to Wilber’s (Anderson, 2006; Gidley, 2007; Murray, 2006; Roy, 2006a, 2006b; Volckmann, 2007). Some Australian futures researchers have also applied Wilber’s integral framework in the futures field (Gidley, Bateman, & Smith, 2004; Slaughter, 2003; Voros, 2003). There is a danger that some proponents of this approach are interpreting integral futures in a narrow dogmatic way reducing the potential of both integral and futures in the process (Slaughter, 2008). For a broader approach see Appendix 4.

Critical appraisals of Wilber’s integral theories have also been published in several scholarly books in the last decade, in the fields of transpersonal psychology (Ferrer, 2002; Heron, 1998), consciousness studies (Thompson, 1998), futures studies (Slaughter, 1999) and education (Miller, 1990). It is notable that much of the material discussed above has arisen from North America and Australia. A European critique of Wilber and his writing is that he has not sufficiently integrated contemporary European philosophical and scientific developments in order to be taken seriously in European academic circles. From this European perspective he is described as Pacific— that is, more influenced by eastern philosophical and spiritual traditions— rather than Atlantic (Benedikter, Forthcoming). This critique is relevant to my work in that I have noted Wilber’s

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15 Wilber scholar Sean Esbjörn-Hargens has continued some of these debates, apparently on behalf of Wilber and his integral project.
16 Wilber’s Integral University project appears to have stalled at the time of writing.
omission of significant European integral philosophical influences such as Steiner and Goethe and also his privileging of Eastern rather than Western spiritual traditions in his publications. The privileging of Oriental over European traditions in Wilber’s theory was also noted as an obstacle to its likely uptake as an educational theory in the USA (Hamlin, 1991).

In summary, critics of Wilber tend to focus on:

- A range of technical features in relation to his transpersonal theory (de Quincey, 2000; Ferrer, 2002; Grof, 1996; Kelly, 1996; Washburn, 1996);
- A range of technical features in relation to his integral model (Anderson, 2006; Gidley, 2007; Hampson, 2007; Murray, 2006; Roy, 2006a, 2006b);
- The rhetorical and polemical nature of some of his interactions with critics (Ellis, 1989; Heron, 1996; Kremer, 1996; McDermott, 1996; Zimmerman, 1996);
- His privileging of Eastern spiritual/philosophic traditions over Western or Indigenous traditions (Benedikter, Forthcoming; Edwards, 2002; Ferrer, 2002; Hamlin, 1991; Kremer, 1996) with a converse Americancentric bias in interpretation, for example, of postmodernism (Hampson, 2007);
- The scientific validity of his claims in regard to the spiritual methods he proposes for transpersonal research (Dunbar, 2000; Ferrer, 2002; Heron, 1996);
- His epistemological hyperbole (Slaughter, 1999), psychic inflation and self-magnification (Thompson, 1998);
- The lack of self-reflection and lack of embodied enactment of his own theories (Hampson, 2007).

**My Critique of Wilber’s Work**

I wish to locate my own critique of Wilber in the context that a major purpose of my dissertation is to give voice to significant yet marginal theoretic voices in the evolution of consciousness discourse (e.g., Steiner and Wilber). Consequently, I have been more interested in emphasising the significance of Wilber’s contribution to the discourse and the importance of deepening his approach, than to enter in detail into critique. I have referred to this approach as critical reverence (Chapter Three, p. 35).

My major critique of Wilber’s writing is related to his glossing over primary sources, which in some cases leads to inaccuracy. It is evident that, when primary sources are checked, his research is frequently not as comprehensive or rigorous as he espouses. Although I have read informal accounts in relation to his inaccuracy with regard to Sri Aurobindo and other primary sources, it is beyond the scope of this research to check the veracity of those critiques. I have particularly focused on his inaccuracies in terms of how he represents Gebser’s writing and also the limitations of his cursory comments about Steiner (see Chapter Three, pp. 12-13). As a safeguard, I have primarily used Wilber as a secondary source to point towards relevant literature that I then investigate through primary texts wherever appropriate. His attention to detail in citing sources is often insufficient to back up his arguments, particularly when he is critiquing a broad area of discourse, for example postmodernism, or romanticism. I have also noted his Anglo-Americancentric bias towards Eastern spiritual traditions and philosophies.

In addition, I have discussed Wilber’s writing style extensively, in comparison with Steiner’s and Gebser’s in Chapter Three (pp. 133-140). In summary, I note that the rhetorical and polemical nature of some of his writing detracts from the scholarship, and that his more recent writing is not
as well researched or referenced as his earlier writing. Although Wilber’s writing style is rather more modernist, or hyperational, than Steiner’s or Gebser’s, this may turn out to be more of a strength than a weakness in terms of readability and accessibility.

In summary, in spite of the various critiques of Wilber’s transpersonal and integral theories, I consider that he has made a seminal contribution to contemporising and initiating a broad theoretic framework for integral thinking, and has contributed significantly to a broadening of the evolution of consciousness discourse. Prior to his evolutionary and developmental writing on consciousness almost thirty years ago, spiritual and philosophical notions of evolution had been seriously marginalised by classical Darwinian theory, and were extant only as a minor, very marginalised philosophical stream. In spite of the many critiques that are levelled at what he is trying to do, I respect his attempts to make a start in formalising an integral theory in a way that is accessible to a contemporary, fractured world. He is operating out of a critique of Western society/worldview, which was initially aligned to a romantic perspective and later, to a Habermasian, post-metaphysical critical theory. Perhaps because of the flaws in his work, it has lent itself to the deepening that this dissertation has undertaken in order to uncover the further potential of integral theory and Wilber’s appropriate location in a broader integral theoretic narrative.

Justification for Selections and Emphases in this Research

Although Wilber’s written and recorded audio work covers a wide range of conceptual and spiritual ‘territory’, I am bounding this research within reference to those published written texts which I have found relevant to the evolution of consciousness with a particular emphasis on current emerging developments of consciousness especially in regards to the implications of this for education. Overall I refer more strongly to his later works, which he refers to as Wilber 4, and to a lesser extent Wilber 5. I also make substantial reference to his earlier Up from Eden, which was his seminal work on evolution of consciousness. Thus I do not include reference to his audio talks and interviews.

References


Appendix 3

An Educational Application of Steiner’s Philosophy

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[Appendix 3 covers dissertation pages 527-543 inclusive]
Appendix 4

An Educational Application of Wilber’s Integral Theory

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[Appendix 4 covers dissertation pages 545-561 inclusive]