The pathology of imagination and its cure

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Abstract:

Imagination is often not valued by adults and is often seen as a sign of immaturity. Many in the education community, and wider, view imagination as something we need to grow out of so that we can face facts and behave as adults. As we reflect back, imagination is seen as escapism and described metaphorically as a disease, that is, something that needs to be eliminated or cured. During this paper I examine a children's story book as an indicator and commentary on the pedagogical culture generally and its treatment of imagination (pun intended). I will then show that imagination has been at best marginalised, if not eliminated from much of education today, particularly in my domain of Vocational Education and Training (VET). This diminution of the importance of imagination results in a corresponding decrease in the quality of learning which comes from our underpinning assumptions about life or our 'world view'. The implications for this critique is to encourage all educators and students alike to know and understand their own world view, how it will affect their pedagogy and in the end their teaching and the learning skills of their students as a lesson for the future. This perspective has emerged from research in the domain of electrical physics as the relationship between imagination and the learning of electrical physics was explored. The research approach was ethnographic in nature using a blended approach of participatory action and narrative research. The research participants were a class of eighteen full time Diploma of Electronics and Communications students over three TAFE terms during 2009/10. The students expanded their imaginative skills as a way of expanding their conceptual skills in electrical physics. The result, for this paper is a better understanding of imagination within the culture generally and VET education specifically.

Introduction

The use of imagination is an important learning strategy. This paper will discuss and demonstrate the link or relationship between underpinning assumptions (world views or meta-narrative) and the marginalisation of imagination. This paper, reporting of a work in progress from my PhD studies, is concerned with some of the underpinning concepts on which my research is based and an account of how participants have reported their attitudes to the concept of imagination in the learning of electrical physics. The organisation of this paper is therefore not the prescribed organisation for a report on completed research.

My current PhD research examines the use of imagination in the understanding of electrical physics. A brief description of how the research was structured and how my students were involved is provided on page 8.

The world view framework, which forms the literature review of this paper, is structurally derived from a book by James Sire '*The Universe Next Door*'(Sire, 1997) and reinforced

by works by other theorists. I re-worked Sire's approach to meta-narratives from an imagination perspective. Meta-narratives and counter-narratives, are based on differing world views and their underpinning assumptions (Thompson, 2005, p. 5). As a place to start this discussion I take each of the major meta-narratives and examine each in the light of their approach to imagination. This is then summarised in Table 1, page 7.

This paper is organised to provide a discussion of world views in relationship to how we shape and frame knowledge. In this I identify how our attitudes to imagination are contained within these world views and give an example of the treatment of imagination in literature. Then I reflect on the research participant's attitudes to imagination taken from participant interviews over a twelve month period.

World views or meta-narratives and the shaping of knowledge

Before we can connect meta-narrative and knowledge, we must first understand something of narrative its self and the shaping of knowledge.

Narrative
Narrative has three main aspects. These aspects are constructing reality, finding meaning, and dealing with complexity. The first two, reality and meaning are more closely related.

Constructing reality:
Story telling or narrative is wired into us as humans. We tell stories in the social context as this enables us to make sense of reality. This is what is known as narrative in academics. Story telling in the social context is about relationships and our place within these relationships (Down, 2006, p. 153). From childhood right through to adulthood narrative is how we learn to put the world together (Marchall, 2005, p. 46). Narrative builds or constructs by creating tension and then releasing the tension. Narrative builds a need to know or shows that there is a lack of the need to know. The narrative releases the tension by then providing the answer or at least a strong sign post to the answer (Quinn, 2005, p. 44). This tension plays directly into the human imagination via curiosity.

Finding meaning:
There is a connection or link between narrative and meaning that leads to action (Atkinson, 1990, p. 41; Pink, 2005, p. 26). If the narrative engenders action, change in thinking and behaviour, then meaning has been established. Meaning is also created as the mind builds connections or schemas (Clancy & Lowrie, 2010; Daniels, 2008, p. 99). Meaning also has equivalence to the interpretation of the narrative and subsequently produces value. External narratives are those that come loaded with meaning received from outside the senses. Internal narratives are those created from within one's own thinking process. Narrative can also have a community dimension or social basis. These narratives are about communication of meaning (Beautell, 2000, p. 37). The society has a norm or tradition that is communicated through narrative (Ralston-Saul, 2001, p. 256).

Dealing with complexity:
We often think that narrative creates complexity. The universe in which we find ourselves is extremely complex and we, as humans, need to make sense of it. Narrative helps us to understand the detail of the complexity (Beautell, 2000, p. 37) and to resolve cognitive

dissonance or disequilibrium (Edlin, 1999, pp. 224-225). Otherwise overload would occur very quickly (Lesgold, Lajoie, Logan, & Eggan, 1990, p. 349). So story telling or narrative is a human ability that is not just about communication, but about the story teller using imagination in narrative to deal with the complexity and so improve one's own learning in the process of storytelling (Down, 2006, p. 134).

As soon as we attempt to explain what we know, then our spiritual and philosophical assumptions come into play (Pearcy, 2004, p. 43). So it is with meta-narratives. We are explaining what we know in a way that brings meaning, which is inescapably connected to our world view (Daniels, 2008, p. 99; Thompson, 2005, p. 23). This is a rational and faith response. It is a part of what it is to be human. There is no neutrality as all learning is faith based in some way because of our underpinning assumption (Plantinga, 2002, p. 67; Rieber & Robinson, 2004, p. 351).We must also remember that science and reason are not the only accepted ways of knowing. We are more than just Aristotle's 'rational animals'(Grenz, 1996, p. 169).

Definition of world views or meta-narratives in shaping knowledge

Whether imagination is the result of complex chemistry and physics, or the result of being infused with the image of God, or the result of social language construct, we have difficulties with imagination no matter how we define our universe. It is this commonality and, in a sense, difference in commonality I have been exploring in relation to imagination. The following is a very brief description of the main meta-narratives as a literature review of kinds.

Deism: Prominent philosophers: John Locke, François-Marie Voltaire
In this world view, a transcendent non-personal God that is the start of all first causes. The cosmos is God created and is a closed system, which God does not interact with or sustain in any intrinsic way. Humans are personal, but are just part of a big machine. This is God likened to a clock maker. He builds the clock, winds it up and lets it to run. The machine (clock) is created but is not an image of the original creator. The cosmos is in its 'normal' state, therefore the cosmos is knowable and we can determine what God is like by studying it.

In the beginning God created the cosmos. God has left the creation to run on its eternal merry way, humans involved or not. God is far off and probably planning his next big thing. This at best means, that God is a distant observer of human behaviour.

Naturalism: Prominent philosophers: Carl Sagan, La Mettrie, John Platt.
In this view matter just exists externally and that is all there is. The universe is eternal. The universe is a constant closed system of cause and effect. Humans are complex, very complex biological machines and personality is just a result of physics and chemical complexity. Death is simple extinction of personality and the individual. History is chronological and only connected as the result of cause and effect and does not represent any big over arching story or meta-narrative. Ethics only applies to humans and is determined as a human social contract. The universe is completely knowable through study and reason.

The narrative is evolutionary Darwinism. The universe is the result of a big bang after which carbon based life randomly (by chance) began. After millions and millions of years life has evolved through chance encounters (cause and effect, i.e. Natural selection) and humans are only one part of that evolutionary process.

Nihilism: Prominent philosophers: Samuel Beckett, Franz Kafka, Joseph Heller
This is not strictly a worldview, but rather a denial of all philosophy to the point of absurdity. In reality, matter is all there is and it is eternal. The universe, no matter how absurd, is a system of cause and effect. Humans are complex biological machines and are not yet understandable. Nothing is really knowable and one cannot get outside the cause and effect box.

All stories are denied in this world view. Of course, philosophically this is still a meta-narrative. Other aspects of this approach are a balance between necessity and knowing. This leads to a great cloud of unknowing. An example of this kind of narrative is found in the novels *Hitch-hikers Guide to the Galaxy* (Adams, 1980) and *Catch 22* (Heller, 1961).

Atheistic Existentialism: Prominent philosophers: Albert Camus
Matter exists externally in two forms, subjective and objective. God does not exist. The cosmos is a closed system of cause and effect. History is simply chronological and has no overarching narrative and therefore no big purpose. Ethics is only a human phenomenon. The universe is seen as just pre-existing without explanation. The world is just a machine spinning in space with none of its parts conscious of the other parts. Time is meaningless and science and logic are not really required. People are self determining gods.

Revolution is everything with constant flux and change. Narrative is all about the self-narrative or your personal story. In a sense this is Nietzsche's 'all against all' (Grenz, 1996; Koyzis, 2006). There is a strong Platonic dualism in the self-narratives when dealing with matter being subjective and objective. All the stories are subjective and objective is relegated to abstraction. The result is that meta-narrative is about the person's individual story, and how that may be integrated with the local cultural story and to a limited extent, the national story.

Eastern Pantheistic Monism: Prominent philosophers: Hermann Hesse, Deli Lama
God is the cosmos. From this point the pantheists view becomes extremely varied. I will limit the picture to roots that underpin Hinduism and Buddhism. Only 'One' impersonal element contains reality. Each human is the soul of the universe. Some things are more than others, in other words order/structure is not necessarily meaningful. Reality is a hierarchy of appearances. Many if not all roads lead to the 'One'. Death is the end of the individual, which is what was being pursued in life, (That is the end of self, not death per say) so it makes no difference. 'Oneness' is to go beyond time, so history is meaningless and cyclical.

The story is a cyclical, one of the individual which is meaningless existence or non-existence. Self-narrative and becoming part of the "One" is the meta-narrative. In other words the cyclical story of the individual becoming and re-becoming part of the oneness of the cosmos is the over arching story.

New Age: Prominent philosophers: Aldous Huxley, Ken Wilba, Peter Singer.
Whatever the nature of being, (idea, energy, matter, particle) the self is god, prime reality. To be human is growth in the understanding of this fact. The cosmos is self unified and has two dimensions of visible and invisible. Cosmic consciousness tends to eliminate ordinary categories. For example space, no two bodies can occupy the same space. Cosmic consciousness eliminates the category of death and therefore death is not the end of self. Meta-physics has the following characteristics, Occult-attends consciousness, Psychedelic – projection of the conscious self, Conceptual relativist- conscious activity of mind using non-ordinary models of reality, none of which is any truer than any other.

The story is derived from both Existentialism and Pantheism. Basically it is a self-narrative as one learns that they are prime reality. This in the end is Nietzsche's 'all against all' taken to its natural conclusion.

Postmodernism: Prominent philosophers: Michael Foucault, Jacques Darrida, Richard Rorty.
This is not strictly a philosophy because post-modernity is simply a rejection of modernity (Grenz, 1996). Truth is forever hidden. All we can do is tell stories to deal with reality. All narratives are power plays. All meta-narratives are oppressive and are to be rejected. Humans make or define themselves through language. Ethics is a linguistic construct. Good is whatever society wants it to be, through social contract. Literary theory is what it is all about, no God, no science, and no philosophy. This is really naturalism in another form.

There is no narrative, or meta-narrative, this is of course a meta-narrative within itself. If taken to its ultimate conclusion this is Nietzsche's "all against all" or the ultimate self-narrative with no regard for anyone else. Your story is what matters and is in the end your ultimate truth and way of knowing anything.

Biblical Christian Theism: Prominent philosophers : CS Lewis, Pascal, Bath
This is my own world view, and I am critically aware that this will influence my perspective of other worldviews. So I thought it appropriate to make this clear before I start interpreting the participant data in terms of the world views I have identified.

God exists; He is infinite and personal within His triune community of persons. God is transcendent, omniscient, sovereign and good. God created the cosmos from nothing to operate uniformly in an open system. Humans are created in the triune God's image and as such possess personality, self-transcendence, intelligence, morality, and creativity. Humans were created good, but through the 'fall' (rejection of God's purposes to peruse their own or rebellion) the created image became defaced, though not so ruined as to not be capable of restoration. The restoration came through the work of Jesus Christ, which is his incarnation, death and resurrection. Death is a gateway to eternal life in the new creation with God or eternal death of separation from God. History is linear and meaningful because it represents the fulfilment of Gods purposes for humanity.

The Biblical narrative is best described as a play with a prologue and six (6) acts (Thompson, 2005, p. 17). These are:

God	Creation	Fall	Israel	Jesus Christ	Church	New creation
Prologue	Act 1	Act 2	Act 3	Act 4	Act 5	Act 6

In the beginning God (Prologue) created the heavens and the earth (Act1). Humanity rebelled (The fall. Act2). God sets redemptive and gracious plan into action through Israel (Act3), determined to buy back (redeem) and bless the creation. God so loved the 'world' that He gave His only son Jesus (that is part of His triune self) to live die, be resurrected, and glorified (Act4), more grace. God is in process in the past, now, through the pouring out of His Holy Spirit by grace (Act5) and future in new creation (Act6). This makes God controller of history, so history has purpose and meaning as narrative.

How our concepts of imagination fit into our world views.

Concepts of Imagination
Imagination has a multiplicity of meanings, and understanding and those meanings often overlap. It is this complex nature of the word that necessitates a clearer way of, communicating the meaning and or intended meanings. A survey of the literature and dictionary reveals eight meanings or facets or characteristics of imagination (Collins, 1981, p. 26), in the way I would intend to use the word.

The first of these facets or characteristics is the ability and process or the forming of mental models or images that are not actually presented to the senses. This is non sensory reality, electrical physics and meta-physics. The next characteristic is the facility to produce ideal creations consistent with reality in language. This is the creativity in storytelling, language, drama etc. Another facet is the skill to produce ideal creations consistent with reality in pictures. This is the artisan of pictures, arts and sculpture. The fourth characteristic of imagination is the production of concepts not consistent with reality, being baseless or fanciful. This is the entertainment and escapism that can apply to all forms of art and expression. Next is the capacity to solve difficulties resourcefully in a nonlinear manner. The term we often to use is to think innovatively or to think 'out of the box' or to 'think laterally'. The sixth imaginative aspect is the power to build and reproduce images in the 'field' (long term memory), pictorially or linguistically or perceiving with the inner eye. The next is the capability to create new images from former experiences, pictorially or linguistically. This facet relates to the way we construct metal images and or schema to represent concepts and our ability to construct adjust and reconstruct these. The final imaginative characteristic is the means to synthesise from all the sensory data into ideas with meta-physical meaning. This is the concept that the whole is greater than the sum of its parts.

TABLE 1

World View	Narrative	Philosophical System	Use of Imagination	Treatment of Imagination
Deism	Wind up universe	Open then Closed	Mediocre	Marginalized by utility.
Naturalism	Evolution	Closed	Dualistically abstracted.	Reductionist utility.
Nihilism	Denial of narratives.	Closed	A defective toy	Escapism utility.
Atheistic Existentialism	Revolution and constant change	Closed	Small 'I' imagination	Imagination used to marginalize imagination.
Eastern Pantheistic Monism	Individual narratives that are cyclical.	Closed	Mediocre	Marginalized by the limited acceptance of categories.
New Age	Self-narrative	Closed	Mediocre	Marginalized by redefinition.
Postmodernism	Self-narrative, All against all	Closed	Strong	Actively Denied
Biblical Christian Theism	Six Act Bible narrative	Open	Strong	Marginalized by dualism and rebellion.

(Sire, 1997)   **(Research Summary)**

Treatment of imagination in much of fictional literature

Literature, fictional or otherwise is an obvious product of the imagination. In many cases it works to eliminate it for individuals of 5+ years in their "real lives". An example of this is the story of Henry or Peter Pan or the ordinary boy in '*Once Upon An Ordinary School Day'* or Randolph in '*Randolph's Dream'*. The over-arching narrative in these stories uses imagination to marginalise imagination in the adult and children's world. Unfortunately I only have only space for a brief examination of one example, and that is of Henry.

When Henry Caught Imaginitis

Henry is portrayed as a very serious boy who likes doing sums and straightening things that are wonky. The graphics assist this image by being in black and white. One day

Henry has a thought that does not make sense and all of a sudden is carried off into the world of sailing ships and this for him is very confusing. Pictures turn to colour. That night at dinner Henry has another silly thought about a red dragon and climbs under the table to fight the silly thought. Henry's silly thoughts continue to get bigger and bigger. Henry's solution is to read the Big Book of Sensible Things in an effort to eliminate the silly ideas. Henry decides that there is something wrong with him and again consults the Big Book of Sensible Things. The book indicates that he has caught imaginitis because he has silly thoughts. The only cure the book says is to wait until he grows up.

> Henry knew just what to do while he waited.
> He built a wonky castle, fit for an imaginary king.
> 'But just until I grow up', he said.
> And that, Henry thought was a very sensible idea.
>
> (Bland, 2008, p. 31)

As mentioned above, the ironic bomb shell is primed by the ***Big Book of Sensible Things*** and dropped in the second last page inscribed on a bath tub "'But just until I grow up' he said." This beautifully illustrated and imaginative children's book unfortunately teaches that, in our culture, imagination is the domain of children only and that this childhood disease will be eliminated by maturity, that is, by growing up.

There is a contradictory thread in these 'fiction' books and in the terms we use categorise them, that of fiction and non-fiction. Books of 'fiction' value imagination and books of 'non-fiction' imply that imagination is not valued. The very category of non-fiction insinuates the lack of value of imagination to the point of marginalisation. In fields such as drama imagination is valued. However, young children are often taught that imagination and facts or fiction and non-fiction are mutually exclusive. My study provides support that this is not the case.

Research Participants.

This next section about world views and imagination emanates from my PhD research project into the relationship between imagination and the learning of electrical physics. The participants have had their view of imagination shaped by many of the 'fiction' stories mentioned above. This paper is not the place to explain or expound this relationship but suffice to say that a strong understanding of world views and their affect on the participants' understanding of imagination is an integral part of the 'imagination project'. To provide some context the imagination project's thesis is;

> ***Will being meta-cognitive about imagination, individually and collectively, assist TAFE electrical engineering students in their learning and application of electrical physics?***

As participants in my research, eighteen full-time Diploma of Electronics and Communication students undertook to participate in imagination skills engaging activities for, four hours per week over three action research cycles. Layered on top of the action cycles, the participants produced video diaries through semi-structured interviews, and

least twice per cycle. The video diaries build into a narrative of the student's experiences during the imagination project. The imagination project operated over three TAFE terms, each term being one cycle. The first cycle was driven to a large extent by the researcher. The second cycle was facilitated by the researcher by providing ideas for imagination activities, but selection and engagement of the activities was driven by the participants. The third and final cycle was driven by the participants, that is, they suggested and engaged their own imagination activities as a group. The final video narratives were then edited into clips and sequenced into a complete story for each participant. The stories were then transcribed and loaded into NVIVO for analysis from an activity/narrative perspective.

The following discussion around imagination and the effects of a world view are indicated by video comments made by two of the participants in my project;

> Of my story the three major things I have enjoyed or helped me in my imagination or mind thinking skills. Imagination for me is a more childish term. It's encouraged for use by the children. For me I have been brought up that you get older you have to become more serious and stop acting like a kid. I think that's where my view on imagination is, it's childish. If imagination I would prefer to call it using your mind or something, mind power or thinking. That's how I probably view it, so the exercises we have done helped me use my mind better.   (Student #1 Clip 42 of 50).

For this student, the imagination activities have helped his learning in and of electrical physics. The problem for this student is the term 'imagination'. For this student, his cultural picture or his world view is so deeply engrained with the concept that imagination is only for children that he can't deal with the challenge. That is, that imagination may not just be the domain of children. So this student rationalizes the conflict and marginalizes the conflict by insisting that the term 'imagination' be named something else.

This student's world view has been build up by his educational culture from before formal schooling and now through to their post sensory education at TAFE. For this student they have clearly benefited from being meta-cognitive about their imagination. The problem is they still strongly need to give an explanation for this improved learning that does not threaten their learning paradigm about how an adult is **expected to learn**.

The second student comes to similar conclusions about imagination but from a stronger and more direct perspective. Again, this is their summary at the same point in their story;

> There are some things, parts of the subjects, that don't particularly require imagination. Some of them for me, so you have a formula which applies to this, as long as you understand it, for those, there are concepts you have to have a mental image are wasted on me and sometimes I try to form a mental image and it just doesn't work and I don't get it. [Culture and imagination], In general I am quite reserved, so I tend not to; I shy away from anything that may be considered out there. Just by nature it's something I know, it's not a great thing. It's not exactly bad either though it's something I would rather get rid of; I would like to speak my mind more.
> (Student #2 Clip 30 of 48).

For this student, his world view is one of strong conservatism. This leads them to "…shy away from anything that may be considered out there." The "out there", being, consciously using their imagination. This student is afraid to stray from what they consider the cultural norms and imagination is well of the beaten track. This student acknowledges that their world view, that is 'reserve', is holding them back as indicated as they make comment at the end saying; "I would like to speak my mind more." For this student the world view is unwittingly so strong, despite many activities that have challenged exactly this, they have not been able to perceive the use of imagination and would still be something they would "rather get rid of.". Despite this strong reticence towards imagination and is not mentioned here but in another part of their story, is that this particular student speaks and writes two languages and has strong imaginative skills in this area of linguistics. The result is a paradox for this student that again their world view deals with by suggesting the elimination of the category of imagination.

Conclusion

I have examined how world views have affected how some of my students think and work with imagination in the domain of learning electrical physics. The student's opinions and world views related to imagination are viewed through semi-structured interviews for my PhD project and then compared to a children's story book about imagination as one explanation for their deeply held educational opinions. As indicated in the literature review, all world views would marginalize or eliminate the category of imagination as demonstrated by these two students. The first student acknowledges the use of imagination but would rename it. The second student, despite clearly using imagination, would rather not even acknowledge the category. A further indicator of how these students' educational culture contributes to these perspectives of imagination.

As can be seen from this paper I posit that this cultural aptitude to imagination pervades education and is the result of the world view demonstrated by the students examined and discussed above. My tongue in cheek title, that imagination is a disease whose pathology we can know, treat and eliminate, is a large part of our education and general culture, as is indicated by many story books. I would suggest a counter-cultural revolution, that imagination is not a disease, does not need to be treated but is a significant part of what it is to be human and should be encouraged at all stages of life and particularly in all of education, not just children's education.

As Student # 1 makes clear, there is an expectation of what adult education and learning should be about and not about. For this student imagination, despite its positive effects in their learning over nearly a year (Improved confidence and competence in all units that he credits to "mind power", a euphemism for imagination.), still insists that imagination is childish. To make the learning and teaching of electrical physics easier and more

appropriate we/I must embrace imagination and imagination skills as part of who we are in all of life. Imagination is a strong learning strategy for life long learning.

References

Adams, D. (1980). *Hitch-hikers Guide to the Galexy*. New York: Harmony Books.

Atkinson, P. (1990). *The Ethnographic Imagination; Textual Construction of Reality*. London & New York: Rutledge.

Beautell, E. D. (2000). Touching The Future: Nation and Narration in Contemporary English Canada. *Journal of English Studies, 2*.

Clancy, S., & Lowrie, T. (2010). Pokemon Meanings: Narrative Constructions from multimodal Textx. *International Journal of Learning, 2003*.

Collins. (1981). *The Collins Australian Pocket Dictionary*. Wortham, England: William Collins Sons & Co Ltd.

Daniels, J. (2008). Negotiating learning through stories: mature women, VET and narrative inquiry. *Australian Journal of Adult Learning, 48*.

Down, C. M. (2006). *Situated learning: Perceptions of training practitioners on the transfer of competence across workplace contexts.* RMIT University, Melbourne.

Edlin, R. J. (1999). *THE CAUSE of CHRISTIAN EDUCATION* (3rd ed.). Sydney: National Institute for Christian Education.

Grenz, S. J. (1996). *A Primer On Postmodernism*. Grand Rapids, Michigan: Willian B Berdmans Publishing Company.

Heller, J. (1961). *CATCH-22*. London: hachette Audio.

Koyzis, D. (2006). Liberalism and Christianity: Two conflicting narratives. *The Christian Teacher Journal, 14*(2).

Lesgold, A., Lajoie, S., Logan, D., & Eggan, G. (1990). Applying Cognitive tasks In *Diagnostic Monitoring of Skill and Knowledge Acquisition*: Lawrence Erlbaum Associate Publishers.

Marchall, S. A. (2005). *Thsis: Whats its like being us: Stories of yound New Zealanders who experience difficulty learning.* Auckland University of Technology, Auckland.

Pearcy, N. (2004). *Total Truth*. Wheaton, ILLINOIS: Good News Publishers.

Pink, D. H. (2005). *A Whole New Mind*: Riverhead Books.

Plantinga, C. (2002). *Engaging God's World*. Cambridge, UK: William B Eerndmans Publishing Company.

Quinn, C. N. (2005). *Engaging Learning: Designing e-Learning Simulation Games*. San Fransico: Pfieffer.

Ralston-Saul, J. (2001). *On Equilibrium*: Penguin Books.

Rieber, R. W., & Robinson, D. K. (2004). *The Essential Vygotsky*. New York: Kluwer Acodemic/Plenum Publishers.

Sire, J. W. (1997). *The Universe Next Door*. Leicester, England: Intervarsity Press.

Thompson, R. (2005). *Compass: Worldview Studies*. Auckland: Masters Publishing.