The Import of Integral Pluralism in Striving Towards an Integral Metatheory of Addiction

Guy du Plessis

ABSTRACT In my previous work I explored how Integral Theory can be applied as a meta-theoretical and transdisciplinary framework, in an attempt to arrive at integrally informed metatheory of addiction, yet indispensable aspects were overlooked. Moreover, an overemphasis was placed on Integral Methodological Pluralism, without clarifying the ontological pluralism of addiction as a multiple object enacted by various methodologies. I believe what is needed in an attempt at a comprehensive integral metatheory of addiction is to include Sean Esbjörn-Hargens and Michael Zimmerman's Integral Pluralism and Integral Enactment Theory. Integral Enactment Theory highlights the phenomenon of addiction as a multiple and dynamic object arising along a continuum of ontological complexity. Integral Enactment Theory adeptly points out how etiological models "co-arise", in relation to methodology (methodological pluralism) and enacts a particular reality of addiction (ontological pluralism), while being mediated by the world view of the subject (epistemological pluralism) applying the method. This paper briefly explores the significance of including Integral Pluralism and Integral Enactment theory in the quest of an integral metatheory of addiction

Key Words: Addiction, Integral Pluralism, Etiology, Integral Theory.

Addiction, whatever its form, has always been a desperate search, on a false and hopeless path, for the fulfillment of human freedom.

-M. Boss (1983, p. 283)

Introduction

Previously I explored how Integral Theory, and in particular Integral Methodological Pluralism (IMP), can be applied as a meta-theoretical and transdisciplinary framework, in an attempt to arrive at a comprehensive Integral Model of Addiction (IMA), that honors all the existing single-factor etiopathogenic models as well as the dynamic models (Du Plessis, 2012b). This article can be seen as an extension of my earlier work by adding new elements of Integral Theory to it basic premise, as well as a critique of it by highlighting it one-sidedness. I retrospect I see that an overemphasis was placed on IMP, without clarifying the ontological pluralism of addiction as a multiple object. By including insights of Integral

Pluralism and Integral Enactment Theory, as originated by Sean Esbjörn-Hargens and Michael Zimmerman (2009; 2010), will greatly contribute in the development of a robust and inclusive metaheory of addiction.

In order to provide adequate context the first part of this article serves a pretext in the form of a brief summary and abridged version of my earlier work, and focuses on various etiological models of addiction, and how IMP highlights significant relationships between these models, as well as providing important integrative and meta-paradigmatic insights. This article requires familiarity of Integral Theory (in particular IMP), and will be best understood when read in conjunction with my article, *Towards an Integral Model of Addiction: By means of Integral Methodological Pluralism as a metatheoretical and integrative conceptual framework* (Du Plessis, 2012b). The remainder will explore the significance of including Integral Pluralism and Integral Enactment Theory in the quest towards an Integral metatheory of addiction.

Etiological Models of Addiction

The following section provides a succinct description of the most dominant explanatory models and theories of addiction derived principally from the sociopsychological and biomedical sciences, and point out how each model's theory or worldview (epistemology) is enacted by a particular methodology, as represented by one or more of the eight zones of IMP.

Genetic/Physiological Models

Twin studies suggest that a genetic transmission of alcoholism and chemical dependence is possible, and seem to support the importance of genetics as a contributing factor (Hesselbrock et al, 1999). What is now becoming evident is that the solution will be polygenetic and complex, and will not lie in finding a single gene that can explain addiction (Begleiter & Porjesz, 1999; Gordis, 2000; Blume, 2004). Most neuroscientists studying addiction view it as a brain disease (Volkow et al., 2002). In addicts, the pleasure pathway of the brain is "hijacked" by the chronic use of drugs or compulsive addictive behavior. Due to the consequent neurochemical dysfunction, addicts perceive the drug as a life-supporting necessity, much like breathing and nourishment (Brick & Ericson, 1999). It seems clear, based on our understanding of the neurobiology of addiction, that physiological mechanisms and genetic factors potentially play a role in addiction; however, there are many concerns about assigning sole causality to genetic/physiological factors (Gupman & Pickens, 2000). From an IMP point of view we will notice that the genetic/physiological theories understand addiction from a zone 6 perspective.

Social/Environment Models

The social/environment perspective highlights the role of societal influences, social policies, availability, peer pressure and family systems on the development and maintenance of addiction (DiClemente, 2003). Research has pointed out that macro-environmental influences also play a significant role in the initiation of addiction (Connnors & Tarbox, 1995). Some supporters of the social/environment models focus on the more intimate environment of family influences as a central etiological factor of addiction (Merikangas et al, 1992, Sher, 1993). They suggest that the onset of addiction is influenced by certain variables that emerge from dysfunctional family environments (Coleman, 1980; Kandel & Davies, 1992; Chassin et al., 1996). It is clear that social/environment models have relevance in our understanding of

addictive behavior at a population level, but they often fail to explain individual initiation or cessation in any comprehensive manner (DiClemente, 2003). The social/environment models attempt to understand and study addiction from a zone 4, 7 and 8 perspective.

Personality/Intrapsychic Models

Proponents of the personality/intrapsychic perspective link personality/intrapsychic dysfunction and inadequate psychological development to a predisposition towards addiction (Levin, 1995; Kohut, 1977; Flores, 1997; Khantzian, 1994; Ulman & Paul, 2006. A common explanation, from a psychoanalytic perspective, is to view the etiological and pathogenic origins of addiction as a narcissistic disturbance of self-experience (Wurmser, 1995; Khantzian, 1999; Ulman & Paul, 2006). Kohut (1971, 1977) implies that there is an inverse relationship between an individual's early experiences of positive self-object responsiveness and their tendency to turn to addictive behavior as replacements for damaging relationships. Personality/intrapsychic approach obviously makes a valuable contribution towards a better understanding of addiction, and personality as well as intrapsychic factors appear to contribute to the development of addiction. However, as DiClemente (2003) points out, personality factors or deep-seated intrapersonal conflicts account for a possibly important but relatively small part of a comprehensive explanation needed for addiction. The personality/intrapsychic models attempt to understand addiction from a zone 1 and 2 perspective.

Coping/Social Learning Models

Some theorists indicate that addiction is often related to a person's ability to cope with stressful situations. They believe that, as a result of poor or inadequate coping mechanisms, addicts turn to their addictions as an alternative coping mechanism for temporary relief and

comfort. An individual's inadequate ability to cope with stress and negative emotions has been identified as an etiological factor in many theories of addiction. Bandura's social cognitive theory focuses more on cognitive expectancies, self-regulation and vicarious learning as explanatory mechanisms for addiction (Bandura, 1977, 1986). Although coping and social learning perspectives have become popular in addictionology, generalized poor coping skills cannot be the only causal link to addiction. The coping/social learning models attempt to understand addiction from a zone 1, 3, 4, and 5 perspective.

Conditioning/Reinforcement Behavioral Models

Reinforcement models focus on the direct effects of addictive behavior, such as tolerance, withdrawal, other physiological responses/rewards, as well as more indirect effects described in the opponent process theory (Barette, 1985). Positive reinforcement involves pleasurable consequences related to addictive behavior. Negative reinforcement, as described by the opponent process theory, occurs when a person is rewarded through the substance reducing withdrawal or psychiatric symptoms. Both positive and negative reinforcement play a part in development and maintenance of the addictive process (Blume, 2004). Today there is significant evidence for the role of conditioning and reinforcement effects in the addictive process, and as with all of the previously mentioned models it offers insight into the nature of addiction. However, the conditioning/reinforcement behavioral models do not explain all initiation or successful cessation of addiction (Marlatt & Gordon, 1985). They predominantly attempt to understand addiction from a zone 1, 5 and 6 perspective.

Compulsive/Excessive Behavior Models

Theorists who link addiction to compulsive behaviors either come from an analytic or a biologically-based view. Some theorists view addiction as excessive appetite (Orford, 1985).

Increasing appetite leads to excess and the developmental process of increasing attachment, which is similar to elements of the social learning model. Both the compulsive and excessive behavior models add some explanatory potential to some of the existing models. However, they do not highlight all the variables needed in order to adequately explain the etiology or why individuals continue addictive behavior. The compulsive and excessive behavior models attempt to understand addiction from a zone 1 and 6 perspective.

Spiritual/Altered States of Consciousness Models

Some theorists have suggested that addiction is a spiritual illness, a disorder resulting from a spiritual void in one's life or from a misguided search for connectedness (Miller, 1998). For addicts, drugs become their counterfeit god. Therefore, addicts may be unconsciously pursuing the satisfaction of their spiritual needs through drugs or addictive behavior. Many addicts state that they turned to drugs initially due to an existential void in their lives. Drugs instantly provided a new and often spectacular sense of meaning for them in an otherwise phenomenological experienced existential barren existence. Some theorists believe that humans have an innate drive to seek ASC's, because they encompass systemic natural neurophysiological processes involved with psychological integration of orholotrophic responses and reflect biologically based structures of consciousness for producing holistic growth and integrative consciousness (Weil, 1972; Siegal, 1984, Grof, 1980, 1992). Winkelman (2001) believes that addicts engage in a normal human motive to achieve ASCs, but in a self-destructive way because they are not provided the opportunity to learn "constructive alternative methods for experiencing non-ordinary consciousness" (Winkelman, p. 340). The spiritual/altered state of consciousness models attempt to understand addiction from a zone 1 and 4 perspective.

The Biopsychosocial and The Transtheoretical Model

A dissatisfaction with the fractional explanations proposed by the previously described single-factor models have prompted some theorists to propose an integration of these explanations (Donovan & Marlatt, 1988, Glantz & Pickens, 1992). By calling their model the biopsychosocial model, they indicate the integration of biological, psychological and sociological explanations that are crucial in understanding addiction. This model endeavors to unify contending addiction theories into an integrated conceptual framework. DiClemente (2003) believes that proponents of the biopsychosocial approach have not explained how the integration of their tripartite collection of influences occurs. Without an orienting framework that can explain how these various areas co-enact and interlink, the biopsychosocial approach often represents merely a semantic linking in terms and exhibits limited integration. The biopsychosocial model attempts to understand addiction from a multitude of perspectives, i.e. zone 1, 3, 4, 5, 6 and 8.

In an attempt to find commonality amongst the diverse models of addiction and seek integrative elements, DiClemente and Prochaska (1998) propose their Transtheoretical Model (TTM) of intentional behavior change. Although this model indicates an integrative principle that is common to all the previous models, and although it highlights the dynamic and developmental aspects of addiction, I do not believe it provides a meta-theoretical framework that truly accommodates all the previous perspectives into an integrative framework. The TTM predominantly focuses on one dynamic integrating principle found in all the prominent addiction models, but does not provide the meta-paradigmatic framework needed for a meta-theory of addiction. Miller, 2006; Miller & Rollnick, 2002; Miller & Carroll, 2006). The TTM attempts to understand addiction primarily from a zone 2 perspective.

The Need for an Integral Metatheory of Addiction

In contemporary addictionology there is an ongoing debate concerning the nature of addiction, and there is no agreement on a single etiopathogenic model – a fact which clearly reflects the complexity of this phenomenon (Sremac, 2010; DiClemente 2003; West, 2005). Although there is a move towards more comprehensive models, current holistic models have not yet achieved its goal of providing a truly inclusive and integrative framework to account for addiction. What is missing in these integrative models is a metatheory that adequately explains the co-arising, multi-causality and integration of the many factors influencing etiopathogenesis. Unlike the biopsychosocial model and the TTM, a truly comprehensive and integrative framework would provide the scaffolding to bring together the various research-supported explanatory models, and orchestrate the integration of multiple determinants, as well as explain the dynamic nature of addiction. The diverse etiological models discussed thus far mostly offer partial, often one-dimensional views. Moreover, the proposed integrative models do not provide a comprehensive meta-framework to integrate these diverse explanatory perspectives and explain multiple "co-arising" determinants (Du Plessis, 2012).

I have proposed an integrally informed structure, through which we can move towards an integrative framework that could provide adequate scaffolding for all the current evidence-based etiological approaches (Du Plessis, 2012). Each of the aforementioned models brings valuable insight from a specific paradigmatic point of view, and enacts certain features of addiction by virtue of applying a certain methodology. From an IMP perspective, none of these models or perspectives have epistemological priority, because they co-arise and "tetramesh" simultaneously. Khantzian (1987) states that each of these explanatory models has "an advantage in describing certain features and etiological determinants of substance

dependence. Each also has its limitation" (p. 534). Therefore, these models are all valid from the perspectives they attempt to understand addiction from, but also always partial in their approach to the whole. This implies that a some models are more suited to explain addiction from a certain perspective and more limited from other perspectives.

By viewing addiction through the quadrants and the eight zones of IMP, we can see that all these perspectives with their respective methodological families need to be acknowledged, and as many should be included as possible in order to gain a truly comprehensive view. An integrally informed model would acknowledge all these perspectives and their respective methodologies, and also provides a meta-paradigmatic integrative framework highlighting how these perspectives co-arise and interlink, without having to reduce one perspective to another. This is an important pursuit, as having comprehensive etiological understanding of addiction will provide us with more effective treatment protocol (see Du Plessis, 2010; 2011; 2012; Dupuy & Gorman, 2010; Dupuy & Morelli, 2007; Amodia et al, 2005).

Integral Taxonomy of Etiological Models of Addiction

I have shown that through the application of IMP, an integrally informed model of addiction includes all the evidence-based models and explains which aspect of addiction they enact, and provides meta-paradigmatic integration of these diverse perspectives and their paradigmatic injunctions (Du Plessis, 2012). In Figure one, I provide a taxonomy of etiological models of addiction, using the eight zones and methodological families of IMP, into which etiological models can be grouped.

Zone 1	Zone 2	Zone 3	Zone 4
Phenomenology	<u>Structuralism</u>	<u>Hermeneutics</u>	Ethnomethodology
Conditioning/Reinforcement Behavioral models Compulsion and Excessive Behavior models Spiritual/Altered State of Consciousness models Personality/Intrapsychic models Coping/Social learning models Biopsychosocial model	Transtheoretical Model Personality/Intrapsychic models	Coping/Social Learning models Biopsychosocial model	Social/Environment models Coping/Social Learning models Biopsychosocial model Spiritual/Altered State of Consciousness models
Zone 5	Zone 6	Zone 7	Zone 8
Autopoiesis theory Conditioning/Reinforcement Behavioral models Coping/Social Learning models Biopsychosocial model	Empiricism Genetic/Physiological Models Conditioning/Reinforcement Behavioral models Compulsion and Excessive Behavior models Biopsychosocial model	Social autopoiesis theory Social/Environment Models	Systems theory Social/Environment Models Biopsychosocial model

Figure 1. Taxonomy of the various etiological models of addiction within the eight major methodological families of IMP

Figure one illustrates how an integrally informed model of addiction can possibly account for the various existing models into a comprehensive integral metatheory of addiction, without reducing one model to another. It can provides a meta-developmental-contextual framework to view addiction from a multi-perspectival position from any of its possible developmental stages in self, culture and nature.

Integral Enactment Theory

The following section explores how Integral Enactment Theory highlights important aspects of addiction that are overlooked by most existing theories. To the best of my knowledge, Integral Enactment Theory has not yet been applied in the context of etiological models of addiction. When striving for a comprehensive Integral metatheory of addiction, Integral Enactment Theory could provide vital insights, and can help us unlock some of the mysteries of this exceedingly complex phenomenon. I adapt valuable insights Sean Esbjörn-Hargens and Michael Zimmerman (2009) derived from their study of climate change, (originally developed in their book *Integral Ecology* as well as Esbjörn-Hargens' (2010) article, *An Ontology of Climate Change: Integral Pluralism and the enactment of multiple objects.*) to the milieu of etiological models of addiction. Esbjörn-Hargens (2010) says that at the core of Integral Enactment Theory is the triadic notion of Integral Pluralism:

So there are three pluralisms that should be explicit within Integral Theory: epistemological, methodological, and ontological. These three aspects are essential to the notion of Kosmic address, which highlights that an observer uses a method of observation to observe something. In Integral Ecology (2009), Michael Zimmerman and I develop this triadic structure of enacted realities into a framework: The emphasis here is that epistemology is connected to ontology via methodologies. So, if we are going to have epistemological pluralism (the Who) and methodological pluralism (the How), then we ought logically (or integrally) to have ontological pluralism (the What). I call this triadic combination Integral Pluralism (p. 146).

Integral Pluralism is composed of Integral Epistemological Pluralism (IEP), Integral Methodological Pluralism (IMP), and Integral Ontological Pluralism (IOP). Before I proceed to highlight the value of these three facets of Integral Pluralism, I briefly focus on the importance of the concept of enactment, an essential feature of Integral Theory's postmetaphysical position (Wilber, 2003a, 2003b, 2006; Esbjörn-Hargens & Zimmerman, 2009; Esbjörn-Hargens, 2010).

The idea of enactment is vital in understanding why all the previously discussed theories of addiction do not have to be contradictory, as they are often interpreted, but can rather be understood as "true but partial". Enactment can be understood as the bringing forth of certain aspects of reality (ontology) when using a certain lens (methodology) to view it. In short, reality is not to be discovered as "pre-given" truth, but rather we co-create or "co-enact" reality as we use various paradigms to explore it. For example, when attempting to understand addiction using empirical research methods we will enact a different ontological reality than when using a phenomenological approach. By avoiding what Wilber refers to as the "myth of the given" we understand addiction as a multiple object with no existing "pregiven" reality to be discovered (Wilber, 2003a, 2003b, 2006).

Different research methods in addictionology enact addiction in unique ways, and consequently bring forth different etiological models. Virtually all etiological models (typically based on a positivist foundation, including intrapsychic models founded on psychoanalytic metapsychology) treat addiction as a single object "out there" to be discovered or uncovered, and therefore, eventually run into trouble attempting to explain a feature of addiction outside of its enacted reality. For example, physiological models and their accompanying research (naturalistic scientific) methodologies, enact the biological reality of addiction, and are inherently incapable of showing any truth of addiction outside

the realm of biology, i.e. societal, existential, and so forth. When acknowledging the multiplicity of addiction's ontological existence, the "incompatibility" of the various etiological models disappears, because each enacts a different reality of addiction – each bringing forth valuable insights in its specific ontological domain.

Integral Methodological Pluralism

In previous work I focused predominantly on the application of IMP and its eight zone extensions in developing an integrally informed model of addiction (Du Plessis, 2012b). IMP has two essential features: paradigmatic and meta-paradigmatic. The paradigmatic aspect refers to the recognition, compilation and implementation of all the existing methodologies in a comprehensive and inclusive manner. The meta-paradigmatic aspect refers to its capacity to weave together and relate paradigms to each other from a meta-perspective (Wilber, 2003a; 2003b, 2006). By applying IMP to explanatory addiction models, I showed that each of the single-factor models understands addiction from a specific zone(s) because it applies a specific methodological approach, whereas the more integrative models view addiction across several of these zones. In striving for a comprehensive and integrative integrally informed model of addiction, we honor all the existing theories of addiction with their respective methodologies, by acknowledging that they all have something valuable to offer through enacting certain aspects of the complex and dynamic process of addiction, and at the same time highlighting their respective inadequacies (Wilber, 2003b). Moreover, a metamodel of addiction could help point the field of addictionology toward underexplored areas for etiological understanding of addiction (i.e., vertical developmental levels of zone 2; systemic aspects as represented by zone 7).

I have overemphasized multiple perspectives (epistemological pluralism) without recognizing there are actually multiple objects (ontological pluralism) correlated with those perspectives (and their respective methodologies). Without downplaying the importance of IMP, I merely want to emphasize that IMP has to be placed within the larger context of Integral Pluralism (Du Plessis, 2012a, 2012b). Esbjörn-Hargens (2010) highlights the mistake I, because "in this approach there is still often a lingering sense that there is a single object under investigation by individuals with largely the same perspective. In some cases individuals might combine an understanding of epistemological pluralism with methodological pluralism, which is quite a vision-logic performance. But even here a single object can be and is often posited even if a head nod is given to some vague sense of enactment" (p. 156).

Integral Epistemological Pluralism

Previously I highlighted, albeit implicitly, epistemological pluralism when discussing IMP and etiological models. I used the Indian story of six blind men which captures the essence of epistemological pluralism. Each of the men are touching different parts of the elephant and describe those parts without realizing that each part forms a whole of a single object (See Du Plessis, 2003b). Although this story highlights aspects of Integral Pluralism, it is insufficient in underlining the whole of Integral Pluralism (Esbjörn-Hargens, 2010). This story represents the elephant as a single "pre-given" object. In short, when not placing epistemological and methodological pluralism within the larger framework of Integral Pluralism and Integral Enactment, it tends to reinforce the "myth of the given" by implying a single "pre-given" independent object.

This begs the question; can we ever truly understand or know the true ontological nature of a complex phenomenon like addiction? I believe not entirely; for as long as we develop different methodologies, we will enact different realities. Even the notion of addiction in itself does not have an objective reality, and clearly is a socially constructed "disease" which

we now classify as bad or dysfunctional. Perhaps in another time and place it could be seen as a sought after attribute/behaviour and valued.

Integral Ontological Pluralism

In my previous work I emphasized methodological pluralism and hinted at the notion of epistemological pluralism by pointing out how different etiological models are true but partial, including a discussion of developmental approaches to addiction and recovery (Du Plessis, 2012b). I failed to include ontological pluralism and Esbjörn-Hargens (2010) highlights this mistake amongst Integral Scholars, and it is worth quoting him at length:

Furthermore, Integral Theory is clear that where there is epistemology and methodology, there is also ontology. But curiously there is no mention of ontological pluralism within Integral Theory. Its absence is all the more striking given Integral Theory's post-metaphysical stance on enactment, which highlights that specific methodological practices bring phenomena into being. So, on the one hand the notion of ontological pluralism is implied in Integral Theory and on the other hand it is even less developed than the implicit notion of epistemological pluralism. So there are three pluralisms that should be explicit within Integral Theory: epistemological, methodological, and ontological. These three aspects are essential to the notion of Kosmic address, which highlights that an observer uses a method of observation to observe something (pp. 145 – 146).

Ontological pluralism underscores that addiction is not a single "pre-given" entity, but rather a multiplicity of third-person realities. Moreover, as we shall see, the miscellany of the

ontological realities of addiction has a special enactive relationship with etiological theories and their respective methodologies. Esbjörn-Hargens (2010) goes on to explain:

This represents an enactive relationship between knowing and being, subject and object. Furthermore, the relationship between these elements is explained by a particular theory, or "the Why": the explanatory narrative that accounts for and enacts particular relations between subjects, the methods they use, and the objects they enact. As Mark Edwards (2010) points out—drawing on Anthony Giddens' (1987) notion of a *double hermeneutic*— "Theory not only creates meaning, it also concretely informs and shapes its subject matter" In other words, theory is not merely interpretive but constitutive: theoretical pluralism lends itself to ontological pluralism. (p. 498).

The above statement may sound esoteric, but when framed within our current context, its relevance becomes clear. Esbjörn-Hargens (2010) describes these relationships as Integral enactment. Integral Enactment Theory adeptly points out how etiological models "co-arise", in relation to methodology (methodological pluralism) and enacts a particular reality of addiction (ontological pluralism), while being mediated by the world view of the subject (epistemological pluralism) applying the method. I believe the scheme of Integral enactment is valuable in gaining insight into the nature and genesis of etiological models of addiction, as well as developmental models of recovery.

Figure 2. Integral enactment

Figure two shows the relationships involved in Integral enactment. In short, etiological theories (Why) are part of an Integral enactment of Epistemology (Who), Methodology (How) and Ontology (What). Each etiological model discussed so far partakes in this "algorithm". This "algorithm of Integral enactment" may prove a useful scheme when designing an Integral metatheory of addiction.

Figure 2. Integral metatheory enactment

In an Integral metatheory of addiction (Why) the object studied is theories of addiction (What), the method is metatheorizing (How), juxtaposed with various worldviews, ego developmental stages, and stages of addiction/recovery (Who).² This is obviously an oversimplified scheme, but I believe useful as an orienting generalisation.

Ritzer and Colomy identify four types of metatheorizing, signified by their particular aims (In Edwards, 2010). It can be used to: (1) understand existing theories; (2) to develop mid-range theories; (3) develop an overarching metatheory for multiparadigm study of some field; and

(4) the evaluation of the conceptual adequacy and scope of other theories. The type of metatheorizing that is of interest for this article is the third type: the "mulitparadigm study of some field [addiction]". Mark Edwards (2010) states that metatheorising "is a form of conceptual research that recognizes the validity of each theoretical perspective, while also discovering their limitations through accommodating them within some larger conceptual context (p. 387)".

I believe there are three essential features of the "architectonic" in any theory that attempts to provide the conceptual scaffolding in the construction of a comprehensive metatheory of any phenomenon. Firstly, it must provide a conceptual framework which is able to accommodate and integrate the various (and often conflicting) explanatory theories of a given phenomenon. In short, provide integration for methodological and epistemological pluralism in the field of study. Secondly, it must explain why different theories and their accompanying methodologies enact different aspects of the same phenomenon (ontological pluralism). Finally, it must be able to explain real world observations relating to the phenomenon. I am of the opinion that Integral Theory is capable of all three.

Addiction as a third order complexity

The final feature of Esbjörn-Hargens (2010) work I want to highlight is his notion of ontological complexity. He describes three orders of complexity as follows; "the first order is characterized by phenomena that we can more or less "see" with our own senses. The second order is the result of using various extensions of our senses (instruments, computer programs, charts) to see the phenomena...The third order cannot be seen with our senses nor indirectly by our instruments, but only by "indications" (p. 159). Addiction can thus be understood as existing as a probability continuum of ontological complexity, co-arising and enacted through

different methodologies and worldviews. For example: A first order ontology could be the experience of being high on the drug. It is available to our senses. A second order ontology could be the pharmacological effect of a drug on neurotransmitter levels or unconscious psychological drives as risk factors to substance abuse. Here we can only understand it though measurement and calculations, and in the second example through metapsychological speculation. Both these approaches can grasp only partial aspects of a human existence. At the highest level of abstraction lies the notion of the aetiology of an individual's addiction, which is a staggeringly complex phenomenon beyond our senses or instruments. So addiction "is two steps removed from our direct experience (the first order) and our perception of it relies on many abstract indicators (the second order), which are epistemologically distant and ontologically complex" (Esbojn-Hargens, 2010, p. 159).

When understanding addiction as a third order ontology, we begin to understand why certain models of addictions, especially the single factor models, give rise to such partial and reductionist explanations. They are good at explaining certain "proto-features" of addiction in the realm of its enacted first or second order ontology, but methodologically and epistemologically, they are incapable of enacting addiction on a third order ontology, which is actually the level of ontological complexity where the notion of addiction exists (first or second order ontologies cannot articulate a complex phenomena like addiction, and can only enact "proto-addiction" probabilities). Most of the models discussed have at their foundation a natural scientific worldview and positivistic methodology that are typically adequate for exploring phenomena existing on the first and second order of ontological complexity. However, such models are hopelessly inadequate in explaining complex phenomena like addiction (or any human behaviour) which "exist" on the third order of ontological complexity. For example, reward deficiency syndrome (Blum, 1995) can only be understood as one of many possible physiological risks that interact with other aspects of being-human,

without us having to reduce human behaviour and motivation to neurotransmitter levels. Simply put, even though an addict has low neurotransmitter levels, at the molecular realm of brain physiology concepts like addiction are meaningless. It is like saying an amoeba, which only primarily exists in that primitive level of ontological complexity, has abandonment issues originating from poor object relations.

Medard Boss (1983) points out that the natural scientific method has its limitations in explaining the human realm, as it originated from and is only sovereign in the nonhuman realm (natural sciences). In our discussion of ontological complexity, Boss's approach of Daseinsanalysis, based on Martin Heidegger's ontology, can be edifying. Unfortunately it is beyond the scope of this paper other than to merely point this out, and I believe a more indepth study of this relationship (Daseinsanalysis/Ontological complexity/Ontological multiplicity) can prove to be useful for Integral Theory, as it provides a more integral view of human psychology than most other models. Heidegger provides a method and grounding through which to explore the ontological structure of being human, which he called Dasein (translated as 'there-being'). Boss's method could be described as an 'ontic' articulation of Heidegger's 'ontology.' In our current context we could say that by using Heidegger's method in exploring psychology and psychiatry, Boss echoes the dangers of explaining higher order complex phenomenon (which includes any aspect of human-being-in-the-world) by using methodology (i.e. empirical observation) and epistemology (i.e. positivistic) dominant in lower orders of complexity. He believes that in Freud's metapsychology (and most other theory of human existence) there is inevitably an abstraction and tapering (human-being-inthe-world reduced to first and second order ontology) from our lived engagement in-theworld. In summary: The notion of addiction is a third order of ontology, which can only be co-enacted ("bring-forth-in-the-world") when juxtaposed with associated "methodological variety" and "epistemological depth" (Esbojn-Hargens, 2010).

Therefore, trying to reduce any human's "being-in-the-world" to a 1st or 2nd order ontology, as natural scientific methods do, is fundamentally flawed. Addiction is caused by, affects and manifests in all areas of our "being-in-the-world", and only paradigms (or rather metaparadigms) that function on this level of ontological complexity may suffice - if we are ever to understand, and successfully treat this colossal nemesis.

Conclusion

In summary: Integral Enactment Theory points out that to develop an Integral metatheory of addiction we need to understand addiction as a third order ontology, existing along a developmental and dynamic probability continuum of ontological complexity that co-arises and co-enacts depending on epistemological distance and methodological variety. Through the metatheortical study of theories of addiction, we can develop a theory of theories of addiction (metatheory). There are other essential elements of addiction - not pointed out in any of the above theories (or any theory that I am aware of) - that are necessary for a comprehensive view of addiction, but this is beyond the scope of this article. It is what I call a non-pathological etiological model of addiction.

Arriving at a truly integral understanding of addiction has more than just theoretical value, for the way we understand addiction influences the way we treat it. Therefore, the more comprehensive our understanding, the more effective and sustainable treatment becomes.

⁵ Virtually all theories of addiction begin with the premise that there is something wrong (pathological) with an individual, and substance abuse are attempts to fix it (pun intended). Except perhaps for the spiritual or existential models, which point out that addiction is a false pursuit for transcendence or meaning. Could the other end of the pathology spectrum also be a risk factor in addiction. I believe so, and more often that one would expect. The non-pathological model, is based on the premise that if genius, skill or talent is not actualized or provided enough expression due to internal or external environmental factors, it can contribute as a significant risk factor to developing addiction disorders. For example, intelligence is normally seen as a protective factor for addiction. But when circumstances seriously suppresses the actualization of an individual's intelligence, then it becomes a risk factor. Simply put, having an extraordinary musical talent in an environment where it is not nourished, becomes a risk factor for that individual, where for most people not having the opportunity for musical expression would not be a significant risk factor. Very few etiological models explores the relationship between self-actualization and environment. This model will also attempt to explain why amongst the addicted population there are so many intelligent, sensitive, and talented individuals. That is the real sadness of addiction it often destroys the best of us. And like canaries in a coal mine – the most sensitive die first. Society often tends to see addicts as congenital, morally or emotionally inferior human beings. In many cases, I believe the exact opposite is true. Due to their other-worldly sensitivity they are often the most susceptible to the pathologies of society.

REFERENCES

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th Ed.). Washington, DC: American Psychiatric Association.

Amodia, D. S., Cano, C., Eliason, M. J. (2005) An integral approach to substance abuse. *Journal of Psychoactive Drugs*. *37*(4), 363-71.

¹ The DSM-IV-TR does not use the term "addiction," but rather "substance abuse disorders," since the World Health Organization concluded in 1964 that addiction is no longer a scientific term. However, the soon-to-be-published DSM-V will use the term "addictive disorders" instead of "substance dependence." For the purposes of this article, the term addiction refers to substance use disorders and process addictions such as sex addiction and pathological gambling.

² See Du Plessis (2012a) for a discussion on developmental stages of addiction and recovery. At least three types of developmental stage models needs to be considered. The first is the client's general stage of development. The second type is the client's stage of change as defined by the transtheoretical model of intentional behavior change. Finally, the third type is the general recovery altitude of a client based on clean time and stage of recovery using recovery-based developmental approaches. Although the stages of addiction and recovery may be better understood as chronological stages or phases, I believe there is a correlation between the stage model as articulated in Integral Theory and the various stages (or phases) of recovery models. Simply put, earlier stages of recovery may correlate with early developmental stages, and higher altitude stages of recovery may correlate with more complex developmental stages.

³ My MA thesis titled, *Towards an Integral Metaheory of Addiction*, address the question of the suitability of Integral theory in the design of a comprehensive and inclusive metatheory of addiction.

⁴ This will be the aim of my Doctors Thesis, developing a robust Integral metatheory of addiction.

- Bandura, A. (1977). Social learning theory. Engelwood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986) *Social foundations of thoughts and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Begleiter, H., & Porjesz, B. (1999). What is inherited in the predisposition toward alcoholism? A proposed model. *Alcoholism: Clinical and Experimental Research*, 23, 1125-1135.
- Bevins, R. A. & Bardo M.T. (Eds.) (2004). *Motivational factors in the etiology of drug abuse: Volume 50 of the Nebraska symposium on motivation*. Lincoln, NE: University of Nebraska Press.
- Blum, K. (1995, April 15). Reward deficiency syndrome: Electro-physiological and biogenetic evidence. Paper presented at the annual meeting of the Society for the Study of Neuronal Regulation, Scottsdale, AZ.
- Blume W. A. (2004), Understanding and Diagnosing Substance Use Disorder. In *Handbook of Addictive Disorders: A Practical Guide to Diagnosis and Treatment*, (Ed) R. H. Coombs. New Jersey: John Wiley & Sons. pp. 63-93
- Boss, M. (1983). The existential foundations of medicine and psychology. New York, NY: Jason Aronson.
- Brick, J., & Erickson, C. (1999). *Drugs, the brain and behavior: The pharmacology of abuse and dependence*. New York, NY: Haworth Medical Press, Inc.
- Brown, S. A. (1993). Recovery patterns in adolescent substance abuse. In J. S. Baer, G. A. Marlatt, & R. J. McMahon (Eds.), *Addictive behaviors across the lifespan: Prevention, treatment and policy issues* (pp. 161-183). Newbury Park, CA: Sage.
- Carroll, S. (1993). Spirituality and purpose in life in alcoholism recovery. Journal of Studies on Alcohol, 54, pp. 297-301.
- Chassin L., C. J. Patrick, H. M. Andrea & C. R. Craig (1996). The relations of parent alcoholism to adolescent substance use: A longitudinal follow-up study. *Journal of Abnormal Psychology*, 105, pp. 70-80.
- Coppelo, A., & Orford, J. (2002), Addiction and the family: is it time for services to take notice of the evidence. *Addiction* (97), 1361-1363.
- DiClemente, C. C., (2003). *Addiction and change: How addictions develop and addicted people recover*. New York: The Guilford Press.
- DiClemente, C. C. & Prochaska, J. O. (1998). Toward a comprehensive, transtheoretical model of change: Stages of change and addictive behaviours. In W. R. Miller & N. Heather (Eds.), *Treating addictive behaviours* (2nd ed., pp. 3-24). New York: Plenum Press.
- Donovan, D. M., & Marlatt, G. A. (Eds). (1998). Assessment of addictive behaviours. New York: Guilford Press.

- Du Plessis, G. P. (2010). The integrated recovery model for addiction treatment and recovery. *Journal of Integral Theory and Practice*, *5*(3), 68-87.
- Du Plessis, G.P. (2012a). Integrated recovery therapy: Toward an integrally informed individual psychotherapy for addicted populations. *Journal of Integral Theory and Practice*, 7(1), 124-148.
- Du Plessis, G.P. (2012b). Toward an Integral Model of addiction: By means of integral methodological pluralism as a metatheoretical and integrative conceptual framework. *Journal of Integral Theory and Practice*, 7(3), 1-24.
- Dupuy, J. & Morelli, M. (2007). Toward an integral recovery model for drug and alcohol addiction. *AQAL: Journal of Integral Theory and Practice*, 2(3), 26-42.
- Dupuy, J. & Gorman, A. (2010). Integral Recovery: An AQAL approach to inpatient alchohol and drug treatment. *Journal of Integral Theory and Practice*, 5(3), 86-101.
- Edwards, M. (2010) Of elephants and butterflies: An integral metaheory for organisational transformation. In Integral Theory in action (Ed. Esbjörn-Hargens). Suny Press: New York.
- Erickson, C.K. (1989). Reviews and comments on alcohol research relaxation therapy, and endorphins in alcoholics. *Alcoholism*, 6, 525-526.
- Esbjörn-Hargens, S. (2006). Integral research: A multi-method approach to investigating phenomena. *Constructivism and the Human Sciences*, 11 (1), 79-107.
- Esbjörn-Hargens, S. (2009). An overview of integral theory: An all-inclusive framework for the 21st century (Resource Paper No. 1). Boulder, CO: Integral Institute.
- Esbjörn-Hargens, S. (2010). An ontology of climate change: Integral pluralism and the enactment of multiple objects. *Journal of Integral Theory and Practice*, 5(1), 143-174.
- Esbjörn-Hargens, S., & Zimmerman. M. E. (2009). *Integral ecology: Uniting multiple perspectives on the natural world*. New York: Integral Books.
- Flores, P. J. (1997). *Group psychotherapy with addicted populations*. Binghamton, NY: The Haworth Press, Inc.
- Forman, M. (2010) A guide to integral psychotherapy: Complexity, integration and spirituality in practice. New York: SUNY press.
- Glantz, M., & Pickens, R. (Eds.). (1992). *Vulnerability to drug abuse*. Washington, DC: American Psychological Association.
- Gordis, E. (2000, July). From genes to geography: The cutting edge alcohol research. *Alcohol Alert* (No. 48). Rockville MD: National Institute of Alcohol and Drug Abuse.
- Grof S. LSD Psychotherapy. Pomona, CA: Hunter House, 1980.
- Grof S. *The Holotropic Mind*. San Francisco: Harper Collins, 1992.

- Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1994). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance use prevention. *Psychological Bulletin*, 112. 64-105.
- Ingersoll, R. E., & Zeitler, D. M. (2010) *Integral psychotherapy: Inside out/Outside in*. New York: SUNY press.
- Khantzian, E. J. (1999). Treating addiction as a human process. Northvale, NJ: Jason Aronson.
- Kohut, H. (1971). The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders. New York: International Universities Press.
- Kohut, H. (1977). The restoration of self. New York, NY: International University Press.
- Levin, J. D. (1995) Psychodynamic treatment of alcohol abuse. In *Dynamic therapies for psychiatric disorders (Axis 1)*. Barber, J. P., & Crits-Christoph, P. (Eds.) New York: BasicBooks.
- Marlatt, G.A., & Gordon, J.R. (1985). Relapse prevention: Maintenance strategies in treatment of addictive behaviors. New York, NY: Guilford Press.
- Martin, J. A. (2008) Integral research as a practical mixed-methods framework: Clarifying the role of integral methodological pluralism. *Journal of Integral Theory and Practice*, 3(2), 155-164.
- Marquis, A. (2008). The integral intake: A comprehensive idiographic assessment in integral psychotherapy. New York, NY: Taylor & Francis.
- Marquis, A. (2009). An integral taxonomy of therapeutic interventions. *Journal of integral theory and practice*, 4(2), 13-42.
- McPeak, J.D., Kennedy, B. P., & Gordon, S. M. (1991). Altered states of consciousness therapy: A missing component in alcohol and drug rehabilitation treatment. *Journal of Substance Abuse Treatment*, 8, 75-82.
- Milkman, H. B. & Sunderworth, S. G. (2010) *Craving for ecstasy and natural highs: A positive approach to mood alteration*. CA: SAGE Publications, Inc.
- Miller, R.W. (1998). Researching the spiritual dimensions of alcohol and other drug problems. *Addiction*, 93(7), 979-990.
- Orford J. (2000) *Excessive appetites: A psychological view of addiction* (2nd ed.), Chichester: Willey.
- Proschaska, J.O., & DiClemente, C.C. (1992). Stages of change in the modification of problem behaviors. In: M. Hersen, R.M. Eisler, & P.M. Miller (Eds.), *Progress in behavior modification, Vol. 28* (pp. 184-214). Sycamore, IL: Sycamore Press.
- Siegel R. (1984). The natural history of hallucinogens. In: B. Jacobs (Ed.), *Hallucinogens: Neurochemical, behavioral and clinical perspectives*. New York, NY: Raven Press.

- Sremac, S. (2010). Addiction, narrative and spirituality: Theoretical-mythological approaches and overview. Retrieved 10 July 2010 from: http://www.cirelstud.org/sites/default/files/sremac_rit_14.pdf
- Sher, K. J. (1993). Children of alcoholics and the intergenerational transmission of alcoholism: A biopsychosocial perspective. In J. S. Baer, G. A. Marlatt, & R. J. McMahon (Eds.), *Addictive behaviors across the lifespan: Prevention, Treatment and policy issues* (pp. 3-33). Newbury Park, CA: Sage.
- Siegel R. (1984). The natural history of hallucinogens. In: B. Jacobs (Ed.), *Hallucinogens: Neurochemical, behavioral and clinical perspectives*. New York, NY: Raven Press.
- Smith E. D., & Seymour, B. R. (2004), "The Nature of Addiction" in: Handbook of Addictive Disorders: A Practical Guide to Diagnosis and Treatment (New Jersey: John Wiley & Sons, 2004), 3-30 (ed. Robert Holman Coombs).
- Ulman, R. B. & Paul, H. (2006) *The self psychology of addiction and its treatment: Narcissus in wonderland.* New York: Routledge.
- Volkow, N. D., Fowler, J. S., Wang, G., Swanson, J. M., & Telang, F. (2007). Dopamine in drug abuse and addiction: Results of imaging studies and treatment implications. *Archives of Neurology*, 64(11), 1575-1579.
- Weil, A. (1972). The natural mind. Boston, MA: Houghton Mifflin.
- West, R. (2005). Theory of addiction. Malden, M: Blackwell Publishing,
- Wilber, K. (1995). Sex, ecology and spirituality: The spirit of evolution. Boston, MA: Shambhala.
- Wilber, K. (2000). *Integral psychology: Consciousness, spirit, psychology, therapy*. Boston, MA: Shambhala.
- Wilber, K. (2003a). Excerpt A: An integral age at the leading edge. 5 pts. Ken Wilber Online. Retrieved January 10, 2009, from http://wilber.shambhala.com/html/books/kosmos/excerptA/part1.cfm/
- Wilber, K. (2003b). Excerpt B: The many ways we touch: Three principles helpful for any integrative approach. R e t r i e v e d J a n u a r y 10 , 2 0 0 9 , f r o m http://wilber.shambhala.com/html/books/kosmos/excerptD/excerptD.pdf.
- Wilber, K. (2006). *Integral spirituality: A startling new role for religion in the modern and postmodern world.* Boston, MA: Integral Books.
- Winkelman, M. (2001). Alternative and traditional medicine approaches for substance abuse programs: a shamanic perspective. *International Journal of Drug Policy*, *12*, 337-351.
- Wurmser, L. (1995). Compulsiveness and conflict: The distinction between description and explanation in the treatment of addictive behavior. In S. Dowling (Ed.), *The psychology and treatment of addictive behavior* (pp. 43–64). Madison, CT: International Universities Press.

GUY PIERRE DU PLESSIS, B.A. Hons., is an independent researcher, Registered Counselor in private practice, and Creative Director of a design company in Cape Town, South Africa. He holds a B.A. Honors (cum laude) degree in psychology, with specialization in psychological counseling. He is the developer of the Integrated Recovery Model, Integral Model of Addiction and Integrated Recovery Therapy, and also the first to pioneer and implement an integrally informed clinical model within an inpatient addiction treatment milieu. His work on the Integrated Recovery Model has been published in the Journal of Integral Theory and Practice. He is the author of a book about the Integrated Recovery approach, which is currently in development with SUNY Press. His academic publications have been incorporated into the fourth year social work curriculum at the University Of Johannesburg. His main academic interests are developing well-researched, evidencebased theory and practice in the field of Integral Addiction Treatment, existentialism (especially Nietzsche, Kierkegaard, and Camus), Holism Theory of Jan Smuts, and integrally informed posthumanism. He is a Zen student under Sensei Mugaku Zimmerman, founding member of the avant-garde band Zarathustra, and his favorite activity and contemplative practice is spending time with his beloved daughter Coco, who teaches him the wonder and awe of just being-in-the-world.