WILLIAM JAMES COLLEGE

Contemplative Psychology, Metacognition and Ego Development

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Chairperson: Robert Dingman Ed.D.

Abstract

In a world, that according to the World Health Organization, has approximately 450 million people suffering from some form of mental disease, there is a deep need for expanding mental health care. Indo-Tibetan contemplative psychology is a practice-based evidence lineage tradition of between two-and-a half to nine millennia dedicated to the reduction of suffering and the full flowering of human potential. Whilst mindfulness meditation is becoming increasingly popular and effective in the reduction of mental suffering in contemporary culture and psychotherapy, the full contemplative psychology, of which mindfulness is but a foundational skill, is still unknown. Therefore, there is an increasing need to understand and translate the theoretical foundations of such a psychology into the language, which psychologists and educated laypersons can understand. Using the theoretical perspectives of adult developmental psychology and metacognition, the project reveals the psychology of the Indo-Tibetan tradition as a sophisticated developmental psychology that when practiced facilitates a fundamental transformation in identity, or the basis of psychological operations, from which an individual experiences the world. Such a developmental process eradicates the

fundamental suffering caused from cognitive fusion with the basic structures of experience (body, self, thought, emotion, time, dualistic perception, and the attentional-intentional system), allowing for a transition to a fundamentally open boundless experience of identity, within which arises the experience of interconnectedness and the ensuing altruistic motivation to benefit the social good. This study is one brick in building the bridge between East and West, a bridge that honors the psychology of the East as being as rigorous, technical, and socially relevant as any Western psychology.

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CHAPTER ONE

INTRODUCTION

It has been estimated by the World Health organization that 25% of people worldwide will suffer from a mental disorder. This means at this moment in time approximately 450 million people are suffering from a psychological disease. To make matters worse, due to stigma, fear of discrimination, and lack of access to mental health providers, it is believed that two-thirds of those with a psychological disorder will suffer in silence and never seek help (Mental Disorders, 2001).

Starting near the beginning of the 20th century with Sigmund Freud and the development of psychoanalysis, the field of clinical psychology has creatively evolved in its attempt to reduce and eliminate mental and emotional suffering (Weston, 1998). Its successful evolution has expanded to include hundreds of different theoretical and therapeutic orientations grouped under such broad categories as psychodynamic, cognitive, behavioral, systemic, and humanistic psychology. Research has shown that many of these approaches are successful in treating disorders such as anxiety, depression and others (Seligman, 1995).

As biological science also evolved, major developments in psychotropic medications began to address psychological disorders at a biological level. With the introduction of Lithium in the 1950's, followed by the developments of a series of anti-psychotics, Valium in the 1960's, Prozac in the late 1980's, and the popularization of Ritalin in the 1990's there has been a continued development of drug treatments for a wide range of disorders (Ingersoll & Rak, 2015). By 2010, in the United States more than

one in five adults was on at least one psychotropic medication, with more than a quarter of the adult female population on these drugs (Medco, 2011).

Despite all the developments in psychotherapy and psychopharmacology in the United States, there has been no reduction in the prevalence of mental disease, and at present 43.8 million adults, or 18.5% of the population, experiences a mental illness in a given year (Mental Health Among Adults, 2015). According to the New Economics Foundation, the United States, despite all its wealth and the psychological services at the disposal of its population, is unable to offer sustainable wellness for its population and only ranks 108/140 in happiness (Happy Planet Index, 2016). Aside from improving access to treatment and training many more professionals, there is reason to wonder what else might reduce the extent of mental disease and the lack of human flourishing.

Clinical psychology as practiced in North America has been criticized as a product of "WEIRD" (Western, educated, industrialized, rich, and democratic) societies (Christopher, Wendt, Marecek, & Goodman 2014). It has been argued that it is too easy for modern psychologists to fail to recognize the priority given to western cultural constructs. As a product of WEIRD, western psychology can be seen as folk psychology, situated squarely in a paradigm of scientific modernity (Brunner, 1990). Post-modern psychologists have argued that the science of psychology is not as objective as it is often believed to be (Gergon, 2001; Pickering, 2006). Its training and practices transmit a set of cultural beliefs concerning a moral vision that defines what constitutes emotional and cognitive health, and the good life (Christopher, 1996, 1999). For instance, Western psychology asserts the primacy of the mind versus the body, individuality versus community, and the dominance of the scientific materialist worldview despite the

evidence from quantum physics that mind is as fundamental as matter (Smethham, 2010). This unrecognized paradigm features prominently in North American professional discourse surrounding psychological and behavioral health.

One avenue to begin addressing the vast unmet need for psychological intervention is to adopt an attitude of cultural humility and re-envision psychotherapy as a global human science (Tervalon, & Murray-Garcia 1998). This means recognizing and studying those dismissed non-Western psychologies that offer important perspectives on the human condition (Segall, Lonner & Berry, 1998). These under-utilized resources can help in the development of useful clinical and behavioral applications to reduce suffering and support the growth of happiness.

One such psychological framework is contemplative psychology, the distillation of the psychological understanding of the world religious traditions (De Witt & Baird, 1991). Underneath the cultural packaging of mysticism, myth, religion, and ritual is a psychological science, a body of knowledge that can be actualized in the laboratory of each person's mind (Wilber 2007). The deeper structure of these contemplative practices, as is found in Buddhist and Hindu traditions, appears to follow a universal stage-by-stage progression, while the realizations of each stage are themselves influenced by the theological, cultural, and philosophical particularities of each tradition (Brown 1986; Diperna, 2015).

Beginning with the 1902 publication of William James's Varieties of Religious Experience, the study of contemplative psychology as a legitimate field of study in Western Psychology has unfolded slowly over the last century. The exploration of cross-cultural contemplative practices, for instance, was important for Carl Jung, the eminent

Swiss psychoanalyst and his students of Analytical Psychology (Odajnk, 1993). Meditation slowly became a more serious a part of an American psychological inquiry in the 1950's with the exploration of Zen Buddhism by a number of psychoanalysts (Jung, 1939; Fromm, E., Suzuki, D.T. & De Martino, R. (1960); DeMartino, R. (1991). The interest in meditation led to the popularization of Transcendental Meditation (TM), a modernization of the Hindu Raja Yoga meditation tradition (Desmarais, 2008). It was the TM practitioners who were first studied by the Harvard Cardiologist Herbert Benson. His research into the reversal of the fight/flight stress response then led to the first popular secularization of meditation: the relaxation response (Benson, 1974).

At present the majority of contemplative interventions originate from the Buddhist tradition (Shonin, Van Gordon & Griffiths, 2013, 2014). This is likely due to a number of factors. Buddhism is a non-theistic tradition (Wallace, 2007). It does not necessarily rely upon a metaphysical understanding of human experience and is built upon the humanistic concern of reducing and extinguishing human suffering (Young-Eisendrath, 2008), and can be understood pragmatically without the need for metaphysics (Batchelor, 1998). As a meditation discipline it values objective truth and is more aligned with the values of science than those of pure belief (Lama, 2005). The Dalai Lama, arguably the most influential Buddhist teacher in the world, has been in dialogue with neuroscientists, psychologists, and quantum physicists for decades. He wrote in 2005,

> If scientific analysis were conclusively to demonstrate certain claims in Buddhism to be false, then we must accept the findings of science and abandon those claims. Dalai Lama (2005, p. 2-3).

The foundation of Buddhist thought is psychological. A psychology that is found in the Abidharma, the phenomenological study of cognition and perception of early Buddhism (Govinda, 1974). Abidharma was developed through the use of meditative stability to investigate the first person experience of psychological processes (Markic, & Kordes, 2016). The maps and models, developed by generations of meditators, have a precision similar to those developed in cognitive psychology (Lancaster, 1997), and are likewise similar in their understanding of the complex relationship between thoughts, feelings and behavior (Segal, 2003).

The tradition of Buddhist contemplative psychology has become popular in the West in the form of secular mindfulness meditation. In the 1970's Jon Kabat-Zinn, a trained Buddhist contemplative teacher and molecular biologist, developed a program designed to reduce psychological stress in chronically ill patients as they received health care. This new program, Mindfulness Based Stress Reduction (MBSR) was a melding of different Buddhist approaches including Zen, Tibetan Essence traditions, and Burmese modernist Insight meditation into a simple contemplative practice (McMahan, 2008). MBSR brought meditation out of obscurity and into hospitals, schools, and businesses. Today, over 20 million Americans (6.5% of the population) practice some form of meditation (Elias, 2009), and in the United Kingdom 25% of the population (Mental Health Foundation, 2010). This interest in meditation is now influencing a growing research effort in academia. In 2012, 500 scientific papers were published on the topic of mindfulness alone. This compares to only 50 papers per annum a decade previously. The research science indicates that the contemplative practices of concentration, mindfulness, compassion, and loving kindness have a profound impact on the brain (Hölzel, Lazar,

Gard, Schuman-Olivier, Vago, &Ott, 2011). So much so, that a wholly new multi-disciplinary field of contemplative neuroscience is developing (Davidson, 2012).

At this point in the integration of contemplative and clinical psychologies, Buddhist derived interventions (BDIs) span the therapeutic range, and are used to treat a range of psychological disorders including schizophrenia-spectrum disorders (Johnson, Penn, Fredrickson, Kring, Meyer, Catalino, & Brantley, 2011), personality disorders (Soler, Feliu-Soler, Pascual, Portella, Martín-Blanco, & Pérez, 2012), substance abuse disorders (Witkiewitz, Bowen, Douglas, & Hsu, 2013), mood disorders (Hofmann, Sawyer, Witt, & Oh, 2010), anxiety disorders (Vollestad, Nielson, & Nielson, 2012) and depression (Teasdale, Segal, Williams, Ridgeway, Soulsby, & Lau, 2000).

As the interest in contemplative practices has developed over the last 20 years and moved into mainstream culture there is concern among pioneers in the field that consumer culture is unjustly and unwisely appropriating mindfulness (Cosgrove, 2013). Rather than being deeply researched and understood as an approach to reduce for human suffering, ”McMindfulness,” an oversimplified versions of contemplative practice, could just become another commodity for sale and dispensed in a weekend workshop (Hyland, 2015).

Some believe that simply teaching present-centered awareness without the systematic cultivation of compassion and ethics is not aligned with the original teachings and easily obscures the depth of psychological transformation that the Buddhist contemplative psychology has to offer (Harrington & Dunne 2015; Monteiro, Musten, & Compson, 2015; Purser, 2015; Purser & Milillo, 2015). They argue that the dominance of secular mindfulness approaches in the research and in the proliferation of Buddhist-

derived interventions (BDI) in psychotherapy, coupled with the field's unconscious folk bias towards a modernist, individualistic, Cartesian worldview has led Buddhist contemplative psychology to be selectively and simplistically appropriated. If contemplative psychology is only viewed through the lens of scientific and humanistic psychology then it cannot be understood. Psychology directs its understanding of the normal by drawing upon knowledge of the abnormal and pathological. However, Buddhist contemplative psychology is soteriological, a path of liberation; it is directed to the supernormal human potential, Buddhahood, and draws upon the understanding of normal functioning to enhance the path towards the fruition of human potential (Lancaster, 2007).

Contemplative psychology and its rich pathways toward emotional stability, cognitive peace, clarity, and optimal altruistic living has not been approached as a system in its entirety. One consequence of this is the poverty of literature outlining the larger psychological context of these practices and the significant and permanent potential benefits they can bring to psychological development and the alleviation of suffering (Loizzo, 2014). What exists now is, arguably, a superficial clinical practice paradigm.

This theoretical study will explore Buddhist contemplative psychology as presented within the non-sectarian presentation of the Indo-Tibetan Mahamudra and rDzogchen tradition (Brown, 2006; Chagmé, 1997; Klonchen-pa, 1993) in an attempt to realize a conceptual integration of this tradition with western developmental models. Mahamudra and Rdzogchen will be examined because many, including the Dalai Lama, believe these parallel systems to be the pinnacle understanding of Buddhist contemplative psychology (Lama, 2000: see also; Chagmé, 1997; Ponlop, 2003). This approach

integrates the three main developments of Buddhist psychological thought, Hinyana, Mahayana, and Vajrayana (Ray, 2002), into a single progressive system of psychological development and practice (Guenther, 1989). These three approaches to contemplative psychology are best seen as three phases or empirical revolutions that sequentially build upon each prior discovery (Brown, 2016).

To arrive at the intended integrative model, the study will also explore the psychological literature on mature post-formal adult development that possibly provides the best conceptual bridge to the stages of cognition and metacognition in Buddhist contemplative practice (Brown, 2016). This exploration will include the post-formal research on cognitive development by Koplowitz (1984), and Commons and Richards (1984), both of which build upon the pioneering work of the Swiss developmental psychologist Jean Piaget (1951), work on ego development by Suzanne Cook-Greuter (2005) and Terri O' Fallon (2013) that builds upon Loevinger (Loevinger, & Blasi, 1976), and the integrative work done by the theorists Washburn (2000) and Wilber (2000).

The objective of this research is to support the filling of the gap in the literature and to support building a better conceptual bridge that integrates Buddhist and Western understandings of psychological development. This will allow psychologists and interested meditators a deeper understanding of practice, provide a more complete theoretical understanding of the psychological transformative process that a meditator might undergo, and support therapists' and their clients' contemplative exploration beyond introductory mindfulness practices towards greater freedom from psychological suffering and the flowering of human potential.

Transliteration

To assist the reader in referencing Tibetan terms I have used the Tibetan transliteration method refined in 1959 by Turrell Wylie. This method has subsequently become a standard transliteration scheme in Tibetan studies, especially in the Western world. Wylie does not try to give pronunciation hints and serves only to accurately reproduce written Tibetan. As such diacritical marks used to mark sounds are not in this text for either Tibetan (Tbt) or Sanskrit (Skt).

CHAPTER TWO

BUDDHIST CONTEMPLATIVE PSYCHOLOGY

The tradition of Buddhist contemplative psychology originates with the great Indian sage Siddhartha Gautama. Siddhartha Gautama, or Shakyamuni Buddha, as he was to become known, was born around 563 B.C.E. at Lumbini in the foothills of the Himalayan range (Cousins, & Bechert, 1996). He was a prince of the Northern Indian Shakya kingdom and a member of the royal warrior caste, the *kshatriya*. It is believed that he was an intelligent and strong young man and received the best education of the day, mastering the arts, and sciences, including the martial arts and strategy (Powers, 2009). At 16 years of age he was married and continued to enjoy the comforts of palace life and the pleasures of the royal life style until he renounced his life of privilege to seek an answer to his deep existential questioning. According to Buddhist hagiography, his quest was initiated after the idyllic life in the court of his father King Shuddhodhana was shattered by exposure to the realities of old age, sickness, and death outside the glamor and manufactured reality of the capital's palace at Kapilavastu (Rahula, 1974).

Siddhartha became a forest dweller and joined the ascetic srama movement of the day, studying and mastering the meditative systems of Arada Kalama, and Rudraka Ramputra (Yogi, 2001). It is said that upon displaying mastery of each of these systems the respective masters suggested that he teach. But Siddhartha, despite the meditative absorptions he had mastered, had not answered his quest to understand human suffering so he continued on his own. His 6-year quest culminated at Bodhgaya, under the shade of a large sacred fig tree (ficus religiosa) on the banks of the Nairanjana River. It was there after a 49-day period of intense meditation that he is said to have had a permanent

psychological transformation, the extinction of all causes of psychological suffering, nirvana, and the realization of anuttarasamyak-sambodhi, enlightenment.

This realization led to a teaching career that spanned four and a half decades until the Buddha's death at the age of 80. The teaching of Shakyamuni Buddha initiated the development of the Buddhist tradition. This tradition became a force of civilization in the world, a culture, system of ethics, monasticism, philosophy, psychology, and training specifically designed to bring about the realization of the highest reaches of human development, leadership and heroic altruism (Ray, 1999).

The Three Turnings of the Dharma

Through the view of the Indo-Tibetan Tradition, Buddhism has evolved through three major stages of evolution, or turnings of the wheel of the dharma. Similar to fundamental paradigm shifts seen in other forms of science (Kuhn, 1970), this evolutionary process, here into the causes of human existential unhappiness, is easiest understood as a progression of understanding with each stage supported by the cognitive and metacognitive findings of the prior stage. Whilst the tradition maintains that Shakyamuni (c480 BCE – 400 BCE) taught all three turnings during his lifetime, and that a minority who had a greater capacity for a more sophisticated path initially practiced the latter two phases of the teaching, it is believed that understanding of the later turnings evolved as the cultural environment became more open to their innovations. In that way the tradition is seen to have evolved through time as more people developed capacity, whilst at the same time recognizing that the later teachings were always a part of the tradition.

The growth of Buddhist psychology was dependent upon the development of what the cognitive psychologist Jean Piaget referred to as the psychological capacity for formal operational thinking. The formal operational stage of cognition allows for the capacity for abstract thought: the use of hypothetical and deductive reasoning to reflect upon situations that are not present in concrete reality (Piaget, 1972). This stage of cognition includes the ability to problem solve in a logical and methodical way, and metacognition: the important psychological capacity to monitor and think about one's own thought processes. With the capacity for causal analysis and self-reflection available at this level of cognitive complexity, teachings could be developed that focused on understanding the cause and effect of the pervasive reactivity characteristic of the undeveloped mind. With a foundation in causal analysis, Buddhist contemplative thought then evolved from a reductionistic perspective on human suffering (abhidharma, higher teaching), to a systems perspective (madhyamaka/middle-way), and then to a later metasystemic perspective (buddha nature) (Guenther, 1989), (Wilber 2014), (D. Brown, personal communication, 2017). Each phase of the teaching is an expression of a cognitive paradigmatic shift in understanding human suffering and happiness and its causes, a turning of the wheel.

The First Turning of the Teaching: the Lesser Vehicle

The first phase, known as the Hinayana, or Lesser vehicle, due to the focus on individual well-being, was formalized at the third Buddhist council under the patronage of the Indian emperor Ashoka around 250 BCE. It is believed to contain the original teachings of Shakyamuni Buddha (Keown, 2003), and according to Indo-Tibetan hagiography, this first teaching, the first turning of the wheel of dharma, began at Deer

Park at the ancient city of Benares (Lopez Jr, 2001). The teaching addresses the cause of existential suffering in the form of dukkha, the suffering of cyclic reactivity, caused by the ordinary mind's conditioned response to mental events. Dukkha is the result of samsara, conditioned reactive cyclic existence, the cycles of repetition compulsion that are caused by ignorance into the nature of awareness and the resulting reactivity that leads to compulsive activity. The great Tibetan meditation master, Kalu Rinpoche, comments on the foundational teachings of cyclic reactivity:

> The small Vehicle is based on becoming aware of the fact that suffering marks all we experience in samsara. Being aware of this engenders the will to rid us of this suffering, to liberate ourselves on an individual level, and to attain happiness. We are moved by our own interest. Renunciation and perseverance allow us to attain our goal. (Kalu Rinpoche (1994, p. 16)

The Buddha approached the analysis of human existential suffering from the perspective of a traditional Ayurvedic medical diagnosis (Bhattacharya, 2003). In this approach are seen the roots of Buddhism as a psychological and therapeutic tradition. The four questions a physician was to ask himself were: 1) is there a disease? If so, what is it? 2) What is the cause of the disease? 3) Is there a cure for the disease? 4) If there is a cure, what is the treatment?

The Buddha's analysis, the four noble truths, began with the observation that there is a human disease, *dukkha*, cyclic reactivity. It does not mean, as early western translations and interpretations would assert, that all life is suffering. The root of the word dukkha is etymologically related in Sanskrit to the prefix *dus* meaning bad, and the word *kha,* the original word for axle hole in the ancient language of the nomadic Aryans. The

word dukkha literally means the uncomfortable experience of riding in a wagon when the wheel is off the central axis rather than aligned (Tirch, 2015).

Shakyamuni was pointing to the fact that human life involves some experience of reactivity, traumatic stress, dissatisfaction, and imbalance, no matter how good one has it. Recognizing that the wheel of our life and nervous system is turning off center in a cycle of repetitive stress and trauma is the first step in a process that leads from stressful suffering to wisdom: "The compulsive mind and body, poisoned by narcissistic delusions and destructive emotions, inexorably suffer a life filled with repetitive stress and trauma, preventable illness, premature aging, and meaningless death" (Loizzo, 2015 p. 35). Dukkha is not an esoteric concept, but the Shakya sage's description of the psychology and biology of stress and trauma, which drives each human being to some extent.

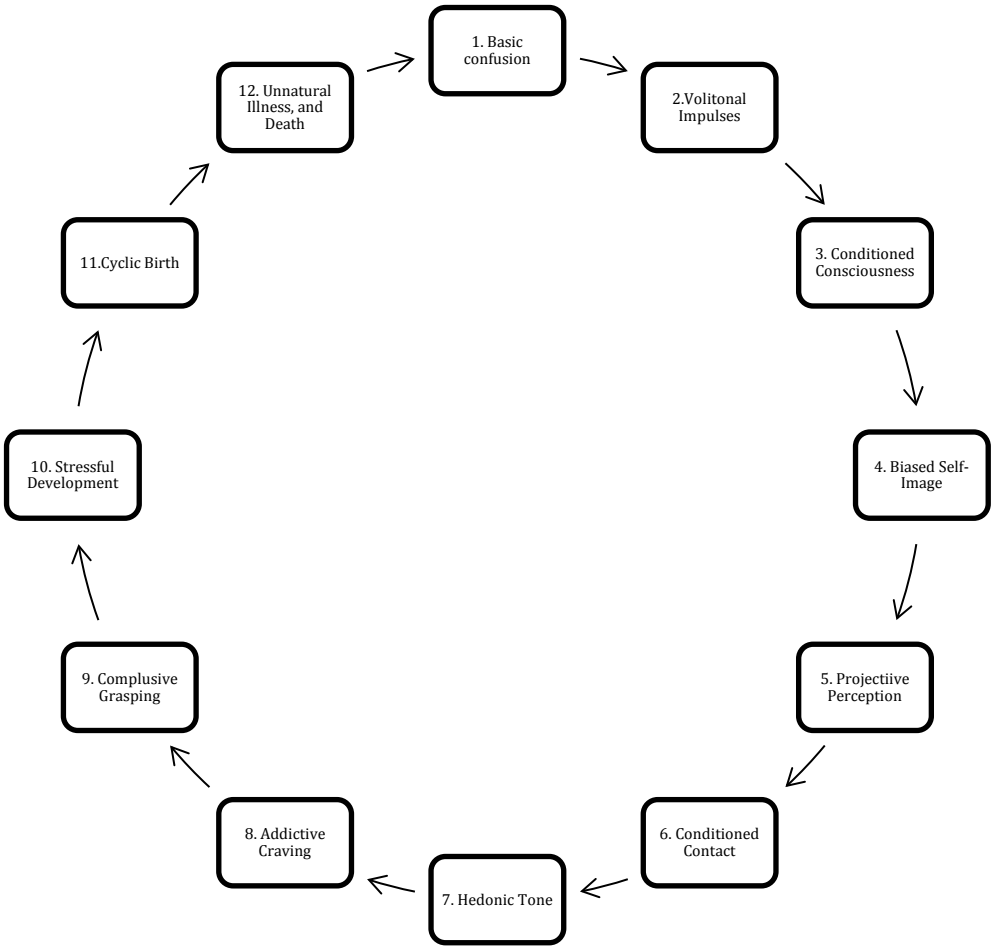
The second of the four noble truths is that the cause of dukkha is the mind's conditioning (karma) to reactive craving (tanha). This addictive grasping of the mind is, according to the Buddhist psychology of information processing (abhidharma), driven by the mind's conditioned reactivity to move towards events to create more experience (clinging), to move away from experience to avoid it (aversion), or to lapse into a loss of awareness though fusion with experience (ignorance or confusion). These three compulsive mental activities are said to dominate the normal reactive mind, obscuring the mind's natural condition of openness, clarity, and peace (Brown, 2006). The traditional Buddhist belief is that this cycle of compulsive mental and emotional activity is driven by cause and effect (karma) in a multi-life process. Buddhist psychology sees the cycle of psychological reactivity as driven by conditioning inherited from past human and animal lives since *beginingless* time. Reincarnation aside, Shakaymuni's understanding can be

interpreted as a naturalistic analysis of suffering describing the conditioning elements of both nature and nurture, the epigenetic transmission of trauma (Yehuda et. al. 2005), "the reincarnation of former ego-structures" (Freud, 1923, p. 48), and the intergenerational transmission of behavior (Loizzo, 2011).

The abhidharma are the systems of Buddhist cognitive psychology that each tradition follows. The Indo-Tibetan tradition draws its abhidharma particularly from the Abhidharmasamuccaya by 4th century Indian Asanga. In the abhidharmic analysis of the causal workings of the mind it reveals that when fully understood there is no solid permanent self but a complex mind-body system of sensations, instincts, emotions, thoughts and perceptual processes known as the five skandhas. When disturbed by traumatic conditioning this system creates the illusion of a permanent self (Tsering, 2010). This sense of a permanent self-existent self is activated due to reactivity caused by cycles of cognitive grasping, aversion and confusion that form a hidden 12-fold cycle, seen below in Figure 1, at the heart of Buddhist psychology. This cycle of traumatic repetition is known as the cycle of dependent origination (pratityasamutpada). From the perspective of Buddhist psychology this is the cycle that drives our ordinary unhappiness.

Figure1

The 12-Link Cycle of Dependent Origination



Traditionally the cycle is said to operate over three lifetimes (Tashi, 2005). However contemporary Buddhist scholars and psychologists, Batchelor (1998), Loizzo (2011), Miller (2014), and (Neale, 2017) have pointed out these three lifetimes could also refer to one's personal and social past, present and future. Neale (2017) explains that stripping the cycle of its *speculative metaphysics* returns the cycle back to its original intention, which is a psychological model from which psychological karma i.e. causality can be understood. From the discoveries of more contemporary psychology it is

understood that humans are deeply conditioned by a childhood past, one that necessarily affects the present, and in turn conditions and creates the future:

> The experiences of the ego seem at first to be lost for inheritance; but when they have been repeated often enough with sufficient strength in many individuals in successive generations, they transform themselves, so to say, into experiences of the id, the impressions of which are preserved by heredity. Thus in the id, which is capable of being inherited, are harbored residues of the existences of countless egos; and, when the ego forms its super-ego out of the id, it may perhaps only be reviving shapes of former egos and be bringing them to resurrection. Sigmund Freud. (1990, p. 28)

Animal studies of traumatic prenatal environments have shown that negative influences affect the stress resilience in offspring and result in pathophysiological changes (Kapoor et al., 2004). The growing evidence revealed in animal and human studies shows that stress conditioning extends into future generations, and that the memory of fetal experience extends fetal nutritional and endocrine insults into subsequent generations. The idea presented by the Buddha that prior traumatic conditioning is at the root of the individual's bodymind is now being affirmed by the discoveries of science. Just as research is revealing the epigenetic conditioning of trauma, the opposite is also true, in that the reducing of reactive sensation (link 7) and thus the cutting off of addictive craving (link8) through mindfulness meditation strengthens mitochondrial function, enhances telomere maintenance, and diminishes expression of inflammatory response genes (Miller, 2014).

Since the 12-link cycle of dependent origination is at the heart of understanding Buddhist psychology it would behoove us to take a deeper look at this cycle and understand it from a contemporary psychological perspective.

1. Basic Confusion (Skt: avidya, Tbt: ma rigpa): The mother and father transmit (cause), epigenetically and as part of early childhood socialization, unresolved multi-generational traumatic reactivity (link13), and the resultant predisposition towards defensive self-protection. This unconscious self-protection leads to the misperception of reality (avidya), and the underlying tendency towards reification of the self, others people, and external reality.
2. Volitional Impulses (Skt: samskara, Tbt:'du byed): This basic confusion of reification (cause) leads to the conditioning of patterns of volitional impulses (samskara) that in turn drive emotion and behavior driven through implicit memory. These in turn cause further reactivity and conditioning.
3. Conditioned Consciousness (Skt: vijnana, Tbt: rnamshe): Through the process of early childhood conditioning in links 1 and 2, the basic default operating system of consciousness (vijnana) is now conditioned by reactive-stress and therefore influencing the processing of sensory and cognitive information and the shaping of all further psychological structures.
4. Reified-Self Image (mind and matter) (Skt: namarupa, Tbt: ming gzugs): This conditioned traumatized consciousness's (link 3) default towards self-protection leads to the creation of an illusory reified self-image built on the building blocks of mind (nama) and matter (rupa) from the moment-by-moment impermanent

flow of the five skandhas or mind/body systems (sensations, feelings, perceptions, mental formations and default consciousness) that form the Buddhist self-system.

5. Projective Perception (six sense bases Skt: ayatana, Tbt: phyi'I skye mched drug): The traumatic self-image (link 4) leads to the distortion of the sense perceptions (link 5) as the biased projection of a threatening world conditions perception. As such we are no longer seeing the world as it is but through our projective filters. This reinforces our distrust of the world and strengthens defensive reification of the threatened traumatic self-image.
6. Conditioned Contact (Sky: sparsa, Tbt: reg pa) This unconscious traumatic self-image (5) conditions contact (sparsha) with the world due to the effect of the distorted self-image and its narrative about the world. This distortion contaminates all experience of life with chronically unsatisfying reactivity.
7. Hedonic Tone (Skt: Vedana: Tbt: tshor ba) The conditioning of contact (6) with the world leads to the subjective determinance as to the valence of experiences hedonic tone (vedana). This is either pleasant, unpleasant or neutral
8. Addictive Craving (Skt: trsna Tbt: dod sred): In response to avoid negative hedonic tone, increase pleasurable tone, or ignore neutral tone (link 7), the bodymind either craves more or less experience. In terms of information processing it either moves away or towards further experience. There are three forms of addictive craving. 1.) The craving of pleasure. 2.) The craving to become, fueled by dissatisfaction with present experience. 3.) The craving for non-existence, which is a response to perceived intolerable experience.

9. Compulsive Grasping (Skt: upadana, Tbt: bdag ‘dzin): The addictive craving of experience (link 8) leads to the compulsive grasping (upadana) of sense pleasures, and the maintainence of inaccurate worldviews (such as eternalism and nihilism), obsessive behaviors, and identification as a self-existent independent individual.
10. Stressful development/becoming (Skt: bhava, Tbt: mi srid): Compulsive grasping (Link 9) leads to the stressful ongoing development (bhavana) of a self-existent separate self-driven by the misperception of a threatening world.
11. Cyclic Birth (Skt: jati, Tbt: skye ba): The traumatized-self’s ongoing development (Link 10) leads to life choices that further condition the self to give birth to traumatic patterns of cyclic repetition (jati) that further condition the mind into a life-style of dissatisfaction.
12. Illness and Death (Skt: jaramarana, Tbt: rgba ‘chi ba): The effect of giving birth to an unconscious life style (11) leads to an aging and dying process driven by unnatural traumatic stress. This is turn feeds the fear of life, of which aging and death are a natural expression, creating psychological, biological, cultural and systemic dysfunction that becomes the cause for ignorance (1) and the continuation of the cycle of dependent origination.

Buddhist theory and practice is solely designed to end this 12-link process of multigenerational conditioned unhappiness. The understanding of the 12 links is fundamental to understanding how all the different aspects of the Buddhist treatment strategy, the eightfold path, synthesize into an effective path to extinguishing reactive suffering and unfold the human potential for happiness, altruistic activity and evolution.

The third noble truth is that this cycle of reactivity, traumatic repetition and compulsive activity could be ended. Contemporary research into the default mode network of the human brain has revealed that the posterior cingulate cortex implicated in the addictive process of getting caught up in experience is activated similarly in situations of drug addiction, holding to a particular set of beliefs, or self-referential thought processes (Brewer et al., 2013). As such, one can recognize the Buddha's accurate recognition of upadana, the 9th stage of dependent origination, as leading to compulsive grasping of sense pleasures, inaccurate world views, obsessive behaviors and self-referential processing of experience through the faulty view of a self-existent independent individual. The ending of this psychological and biological cycle of reactive grasping, caused by the fundamental confusion of awareness with its conditioned contents (Link 1), is called nirvana, which literally means cessation or extinction. Of note is that extinction is also the term used in behaviorism to refer to the cessation of operant and classically conditioned behavior.

The third truth could equally be called the truth of happiness. However, as Loizzo (2012) points out, no positive terms were introduced in fundamental Buddhist psychology of the Hinayana so as not to complicate the formula with a discussion of profound lasting happiness, something that aspirants might find difficult to envision. Therefore, to discuss the third truth in negative terms keeps the formula aligned with its medical/therapeutic intention and to remind us that the cycle of compulsive stress can be permanently extinguished.

The fourth Noble Truth is the Buddhist equivalent of a treatment approach, an eightfold holistic treatment plan of contemplative lifelong healing addressing an accurate

view of experience, wholesome intentions, truthful speech, appropriate action, socially beneficial livelihood, consistent effort, and the practices of mindfulness and meditative concentration (Hanh, 1999) (Tsering, 2005). The treatment path (marga) leads to: 1.) The development of insight into the three characteristics (impermanence, reactive suffering, and true identity as awareness); 2.) The understanding of mental cause and effect as indicated in the cycle of dependent origination, and its relationship to unhappy and happy mental states; 3.) The threefold development of ethics, meditative concentration, and psychological insight leading to; and 4.) Nirvana, the extinction of the addictive emotional and psychological defilements that cause personal suffering (Loizzo, 2012).

As an integral part of the path, the behavioral interventions of Buddhist ethics are not cast within a simplistic understanding of bad and good, but are understood within the context of the unfolding effects of actions (links 10 and 11) on the strengthening or reducing of the compulsive cycle of dependent origination. In Indo-Tibetan ethics there are 10 inappropriate actions that lead to continuing the cycle of reactive suffering. Violent actions lead to traumatic injury of self and other, compulsive acquisition leads to scarcity consciousness, unnatural sexuality leads to continued sexual frustration, false speech results in mistrust, slander leads to disrepute, abusive speech engenders isolation, idle speech results in contempt, covetous intentions results in mental dissatisfaction, malicious intent results in insecurity, and unrealistic views lead to a confused mind (Loizzo, 2012) On the other hand, the practice of ethically appropriate action creates a very different cycle of cause and effect. Non-violence leads to mental peace, generosity leads to a sense of abundance, sexual sublimation leads to lasting satisfaction, honest speech engenders trust, tactful speech engenders respect, caring speech engenders

leadership, meaningful speech engenders authority, philanthropic intent leads to deep contentment, benevolent intent results in confidence, and a realistic view of reality results in clarity of mind (Neale et al., 2017).

The training associated with the turning of the first wheel addresses the problems of personal traumatic conditioning, and, as such, is often referred to as the Hinayana, or personal vehicle, since its focus is the individual rather than the greater community of sentient beings. The ordinary mind of an individual is in a state of constant reactivity to experience through cognitive avoidance (aversion), elaboration of experience (desire) and loss of awareness (confusion/ignorance). This affects both the mind and the events in the mind in a negative way. From the mind perspective, the reactivity causes mental distractibility, and a discontinuity of awareness. *Mind* here refers to awareness, the basic capability for non-conceptual knowing, and attention, the ability of the mind to hold to a particular mental event. Mental events in Buddhist psychology refer not just to the experience of sensory information (visual, auditory, kinesthetic etc.), but also the processes of thought, memory, and imagination. From the perspective of the mental events, reactivity leads to a disorganization of the unfolding experience in the mind and the constant elaboration of mental content (Brown, 2006).

The goal of treatment/practice is to reduce the causes of reactivity, distractibility, disorganization, and constant mental elaboration, and to increase mental equanimity, the continuity of awareness, the capacity to stay on an intended object-of–focus, to increase organization of mind, and to silence mental activity when needed. The training consists of behavioral modification (ethical precepts), psychoeducation, basic mindfulness and attentional control. Behavioral modifications are designed to interrupt the cycle of

dependent origination at the 10th and 11th links by not allowing the development of a lifestyle driven by compulsive grasping and traumatic repetition. Training in the conceptual understanding of the mind (abidharma psychology) helps support an accurate view of the mind and experience to understand the 12 links of dependent origination. Basic mindfulness is practiced to reduce reactivity to unpleasant hedonic experience at the 7th stage. The mindful practice of accepting experience and no longer avoiding unpleasant sensations cuts off the cause for the 8th stage of compulsive grasping. The practice of attentional stability (calm/staying concentration meditation) reconditions the default attentional system at the 3rd stage.

The Second Turning of the Teaching: the Great Vehicle

According to the Tibetan tradition, the second phase of the teaching was presented on Vulture Peak Mountain near Rajagriha. It was here that the Buddha was said to have taught on the empty uncompounded nature of all phenomena (Skt: shunyata) and on compassion (Skt: karuna) (Hanh, 2008). These two elements form the heart of the Mahayana, the Great Vehicle. Historically, the approach is philosophically grounded in the madhyamaka school founded in the second century CE by Nagarjuna, the abbot of Nalanda University. The Mahayana includes the first turning insights into the reactivity and impermanence of human experience, but deepens the understanding of the deconstruction of the ego (no-self) and impermanence with a more sophisticated understanding that the concepts such as self, suffering, and the freedom from suffering, are themselves empty of an essential nature. In the Mahayana view the entire cycle of dependent origination reviewed earlier is caused by mistaken reification. The fundamental psychological problem with reification (Link 1) is that it causes *self*

*grab,*which obscures the natural equanimity of awareness. It is the recognition of the lack of thing-in-itself-ness, the entitylessness, and constructed nature of all phenomena, whether psychological or physical, that is known by the term shunyata, translated as emptiness, but perhaps better served by the term *openness* to ensure that it is not interpreted as a nihilistic vision of human experience when in fact it is the opposite.

In the contemplative approach of the madhyamaka, the mind trained through prior concentration practice (stabilization of Link 3) is used to direct a high-speed non-conceptual search through on-going mental experience and the psychological constructions of external reality, to see if any self-existent substantiality can be found (Brown, 1986). This search leads to the experience of the unfindability, unlocatability, and insubstantiality of mental experience, the hallmark of the realization of openness (Hixon, 1993). This is the realization of non-entityness, that the self, its experience, and all external reality are experienced as merely constructs without a substantial self-existent nature (Brown, 2006). "Deep examination of the essence of mind through wisdom will reveal the mind in an ultimate sense to possess neither intrinsic nor extrinsic reality; it is without structure" (Namgyal, p.64).

The stability of attention allows for insight into the process of cyclic traumatic stress, by uncovering the biased self-image at the 4th stage as an impermanent construction, and by disembedding awareness from the contents of experience so that at the 1st link of reified confusion, the cause of afflictive emotions and the entire cycle of suffering starts to be purified of conditioned confused reification. The practice of the insight into the open constructed nature of phenomena (shunyata) addresses the reification initiated at the 1st stage and underlying the whole cycle. However, as shall be

discussed in Chapter 3, the fundamental reversal of the cycle comes from the permanent transformation of identity by thoroughly cutting the cycle at the first link through the practice of mahamudra and rdzogchen that directly affirms the clear light nature of awareness as the fundamental open identity of mind.

Following the realization of the emptiness of self and external reality, the contemplative investigation in the second turning of the wheel deepens into examination of the unconscious conditioning of the 1st, 2nd and 3rd links. This is accomplished through the practice of recognizing that time, the temporal unfolding experience of reality, is also a mere construct (Brown, 2006). The realization of this contemplative insight leads to the disembedding of the observing ego from the construct of time, and the experience of a timeless, unchanging awareness. Brown quotes Tashi Namgyal, the author of the Moonlight mahamudra meditation manual: "the way the realized mind stays (like space) is that there is no elaboration of the three units of time (arising, staying, ceasing, nor any dualities, (eternalism/nihilism, coming/going)" (2006 p. 345). The realization of the mind's timelessness opens the meditator to the experience of the simultaneous interconnectedness of all potential events. This realization in the Mahayana is what matures into the realization of compassion and the importance of the transformation of society, as all beings are intimately and simultaneously interconnected.

The Third Turning of the Teaching: the Buddha Nature Vehicle

It is believed in the Tibetan tradition that the third turning was taught by the historical Buddha to an audience of Bodhisattvas at a number of locations in India. Historically, the philosophical foundations are found in the yogachara school, originating in the fourth century with Asanga guided by his visionary experiences of

Maitreya, the mythic Buddha of the future. Whilst the madhyamaka school asserts the fundamental unconstructed nature of human experience, the yogachara school asserts that the mind, awareness, has a primordial reality, and that this mind essence, or buddha nature (Skt: tathagatagarbha) is ultimately real. Later Indian masters from Nalanda University integrated the madhyamaka and the yogachara view into the yogacara-svatantrika-madhyamaka. This position held the madhyamaka position that reality is essentially empty but that the methodology of the yogachara school helped students progress along the path to that realization (Mipham, 2005). Whilst the Indo-Tibetan tradition has multiple lineages with slightly differing approaches, in essence they address the same issue.

> From the point of view of individually ascribed names, there are numerous traditions, such as those of the simultaneously arising as merged, the amulet box, possessing five, the six spheres of equal taste, the four syllables, the pacifier, the object to be cut off, rdzogchen, the discursive madhyamaka view, and so on. Nevertheless, when scrutinized by a yogi, learned in scripture and logic and experienced (in meditation), their definitive meanings are all seen to come to the same intended point. (The First Panchen Lama, Lozang-chokyi-gyeltsen, (Berzin translator), 1997, p.98).

The yogachara terminology is used by the Tibetan essence of mind traditions to explain their most refined practices, the generation and completion stage (tantra), great seal, (Skt: mahamudra) and great completion (Tbt: rdzog chen) traditions. Whilst the three approaches of tantra, mahamudra, and rdzogchen have differing terminology and methodology in realizing the buddha nature, they generally agree that the fundamental basis of awareness is a non-dual union of openness/spaciousness/mother consciousness

and the clear-light awareness/lucid knowing/infant consciousness, the union of which is also known as the dharmakaya, the body of truth. It is the recognition of this fundamental awareness at the 1st link that cuts the entire traumatic repetition of dependent origination.

The mother, openness, is the phenomenological open basis, ground, and foundation of all experience. The Bon rdzogchen lineage of Zhan Zhung Nyan Gyud, describes it as the *space of the nature of phenomena* with nine qualities: boundlessness, omnipervasiveness, and unlimited expansiveness, without top or bottom, immeasurableness, uncontractedness, great vastness, everlasting and immutable (Wangyal, 2000). This open phenomenological space is described as *the Mother* because it is the mother of all phenomenological existence, freedom and conditionality, matter and mind, good and bad, truth and illusion. Thus, this openness is not an inert void, "is not some abstracted and lifeless emptiness, but an utter fullness that…. is vibrant with energy" (Guenther, 1989 p. 203). In a similar way the open field of outer space is full of the fecundity of galaxies, stars, and solar systems. It is not an abstract void-instead a field full of life.

On the other hand, the infant consciousness is the primordial, lucid nature of the mind, an awareness that is brilliantly awake, referenceless, pristinely non-conceptual, and the most basic form of cognition or knowing. At the deepest fundamental levels of the human mind the unbounded openness is inseparable from this referenceless clear knowing.

In the Indo-Tibetan tradition the first turning of the wheel focuses on treating traumatic reactivity and suffering through understanding the cycle of dependent origination that conditions experience, the ethical practice of behavioral modification

(links 9,10,11), mindfulness meditation (link 7), and the attentional development of calm/staying (link 3). In the second turning treatment focus is on practicing recognizing the fundamental openness of experience to liberate the mind from the human habit to reify all experience of self, other, and the world. This matures into the understanding that the entire cyclic nature of suffering is caused by the failure to recognize openness and the ensuing reactive reification. In the third turning of wheel it is understood that suffering is due to basic confusion and ignorance, (Skt: avidya, Tbt: marigpa) as to the true nature of the buddha mind that is always already right here (link1). The recognition of the buddha nature is obscured by the ordinary operations of consciousness, including even the activity of meditation itself. The aim of treatment of this cognitive dis-ease in the mahamudra and rdzogchen traditions is of a similar nature, but the methods differ slightly.

CHAPTER 3

BUDDHIST ESSENCE PSYCHOLOGY

As mentioned in chapter two the Buddhist tradition of contemplative psychology can be divided into three developmental stages (lesser, greater, and buddha/essence vehicles). This stage progression of understanding and treating the causes of cyclic reactive suffering (dukkha) transcend and include each prior stage. This chapter investigates the contemplative psychology of the third paradigm, the essence traditions of mahamudra and rdzogchen, and how these teachings have their foundation in the fundamental insights of the first and second turnings, but also expands upon them by exploring the nature of mind: the clear light spacious nature of awareness itself. It is this essence tradition of contemplative psychology that is the focus of this exploration.

Within the Indo-Tibetan tradition there arose in the 19th century, in response to the authoritarianism of the ruling Gelugpa order, an ecumenical movement known as the rime (all-embracing, unlimited, impartial (Schaik, 2011). This universal approach to contemplative practice respected the separate lineages and yet was able to draw upon the best elements of the five schools. This movement continues today and is best personified in His Holiness the 14th Dalai Lama, who studied with many great masters across the tradition, and took His Holiness Menri Trizin, the leader of the indigenous Bon tradition, as one of his mentors in rdzogchen (great completion) practice.

An outcome of this non-sectarian movement was the synthesis of the mahamudra and rdzogchen traditions. Meditation masters such as the 3rd Karmapa, 5th, 13th and the 14th Dalai Lama worked with both mahamudra and rdzogchen practice. An excellent example of this movement is the text *Buddhahood in the Palm of the Hand, The Union of*

Mahamudra and rDzogchen by the 17th century master karma chags-med (Chagme, 2000). The text outlines a path of practice using mahamudra to recognize and stabilize the realization of buddha nature, and then the use of rdzogchen practice to bring that realization to fruition. Rime masters tend to use mahamudra first, as it best outlines the path of awakening to the buddha mind, and then rdzogchen that has a clear outline as to the completion of the path, buddhahood (Rinpoche, 1989).

Mahamudra

Mahamudra (phyag chen), the *great seal, great embrace*, or *great symbol* is a tradition of concepts and practices within the Indo-Tibetan Buddhist tradition. Maha means great in the sense of a great openness beyond limitations, and mudra refers to the expressive nature of phenomenal experience as viewed from the awakened mind (Ray, 2002).

Mahamudra is divided into sutra, tantra, and essence approaches. Sutra mahamudra is based on the Buddha Nature teachings of the third turning of the uttaratantra shastra of Maitreya (Gyamtso, 2000) and outlines a path to realization attained through the practice of the six paramitas as the bodhisattva aspirant journeys five paths and ten stages to buddhahood). Tantra mahamudra is based on the anuttarayoga tantras (unsurpassable union process) of the New Translation school and outlines a path of practice based on the transformation of the self-image, inner narrative, neurochemistry and energy system of the individual through visualization and yogic exercise (Loizzo, 2012). Essence mahamudra refers to the approach of direct investigation into the nature of mind and it is comparable to the rdzogchen teachings of the rNing ma and Bon traditions (Ringu, 2007).

> There is the scholastic Mahayana path of the perfections (paramitayana), which takes inference for its path. There is the Mahayana path of mantra (mantrayana), which takes the guru's sustaining spiritual power for its path based on the stages of generation and completion. There is the innate and spontaneously arising luminous mind of the Great Seal (mahamudra) that takes direct perception (skt: pratyaksa) for its path. (SGam po pa, 2012, p.53)

The essence tradition of mahamudra originates with the great adept Saraha, who it is believed lived in India in the first millennium CE. He is regarded by the Tibetan tradition to have been the teacher of the philosopher and abbot of Nalanda monastery, Nagarjuna, and the mountain hermit Savaripa. Maitripa (986-1063), received visionary instruction from Savaripa, and outlined in his written works the doctrine of 'not taking to mind' (amanisakara), mentioned below.

In Tibet there are numerable lineages of mahamudra practice in the Kagyu, Sakya and Gelug traditions of the new translation school. Important to the lineage of mahamudra practice described in this chapter is the Tibetan translator, Mar pa Chos kyi bLo gros (1012-97) who studied essence mahamudra with Maitripa, and tantra mahamudra with the ex-abbot of Nalanda, Naropa (d. 1040). Mar pa brought the mahamudra teachings to Tibet and transmitted them to a number of students the most renowned being rJe btsun mi la ras pa (1052-1135). Mi la ras pa passed these teachings to his disciples the yogi Ras chung rdo rdo rje grags pa (1083-1161), and the monastic physician sGam po pa (1079-1153). It is the physician sGam po pa who founded Dagpo

bka' brgyud Monastery and initiated the bka'brgyud monastic lineage that continues to this day under the direction of the 17th Karmapa. sGam po pa, taking his lead from the sutra mahamudra teachings in Maitreya's uttaratantra, decided to teach a number of students the essence approach to understanding the nature of mind within an unorthodox graduated curriculum of practice without requiring the extensive rituals and practices of the tantric approach (Jackson, 2011) (Ray, 2002) (Brown, 2006).

This new approach to mahamudra outlined in sGam po pa's *Explanation of the Sole Path of Mahamudra* outlines the practices in a four yoga model comprising preliminary practices to prepare the mind and body, ordinary calm/staying practice to calm the events of the mind and develop attentional stability, ordinary special insight practices to recognize the empty lucid nature of awareness, and the extraordinary practices to recognize the non-duality of appearance/awareness-emptiness, and to effortlessly mature the realization (Brown, 2006).

> A lucid, unceasing momentary awareness is the one-pointed stage of yoga. Understanding the essential nature of that awareness as nonarising emptiness that transcends conceptual modes or reality and unreality is the nondiscriminatory yoga. Understanding diverse appearances as being one from the standpoint of their intrinsic nature is the one-taste yoga. An unceasing realization of the union of appearance and its intrinsic emptiness is the great equipoise of nonmeditation yoga. (sGam po pa in Namgyal, 1986 p. 358)

The four yogas are also known by the names of shamatha, vipashyana, yugganaddha, and mahamudra. As rDzogchen Ponlop Rinpoche, a contemporary master of the and rNing ma lineages puts it:

> One begins with the practice of shamatha; on the basis of that, it becomes possible to practice vipashyana or lhagthong. Through one's practice of vipashyana being based on and carried on in the midst of shamatha, one eventually ends up practicing a unification [yuganaddha] of shamatha and vipashyana. The unification leads to a very clear and direct experience of the nature of all things. This brings one very close to what is called the absolute truth mahamudra. (Ray, 2004, p.76)

The Path of Development in Mahamudra

In order to understand mahamudra it is necessary to understand the concept of *tawa (Tbt.)* or *dristi (Skt.)* which literally means, *view,* meaning the view from which one experiences phenomena. Brown (2017) explains that the view is dependent upon the basis of mental operation (spod yu), the loci of identity, level of awareness or vantage point from where the mind's metacognition is operating. According to Ras chung, student of Mi la ras pa, there are four main bases of operation, see Table 1 below (awareness fused with thought and self-structure, awareness beyond self-structure, awareness beyond temporal processing, and awareness beyond the information processing system), with each level sequentially freer from the subtler and subtler reifications of unconscious psychological and perceptual structures. Each basis of operation has the capacity to view phenomena (take the event perspective) and self-recognition (the mind perspective). The event perspective refers to the perspective of mental objects perceived at that particular level of

awareness i.e. concrete objects such as the thoughts and subtle objects such as abstract patterns. The mind perspective refers to the perspectival capacity to self-reflect and recognize the level of awareness from which the mind is operating i.e. to make awareness, the subject, the object of itself.

Indo-Tibetan psychology is based on an understanding of four levels of mind; the coarse, subtle, very subtle and awakened. These are four levels of mental experience are are always present in experience, but they are not necessary conscious. Whether a level of mind is made conscious or not is dependent on the level of view, the basis of operation from which identity is operating. Therefore, the basis of operation moves through the various levels of mind. The course level of mind is the level of day-to-day experience based in the linguistically created world of thought by the self. At this level of mind, the events we perceive are solid, a reified world of objects based on language. The next level of mind is the subtle level of mind that is perceived in information processing prior to naming of the coarse level. At this level the events are just the high-speed movement of perceptual information such as the abstract patterning of pure sensation, sound, and color. The mind at this level is functioning prior to thought, and the construction of self, and if the basis of operation is operating at this level it functions beyond the structure of self. The third level of mind is the very subtle level of mind. At this level the mind is a vast interconnected spacious field of very subtle energy and the basis of operation that perceives this is level of mind is a timeless, non-dual individual basis of operation. The fourth level of mind referred to earlier as the buddha nature, dharmakaya, is a non-dual unity of referenceless awareness (rigpa) and unbounded space (ma) where the field and

the basis of operation perceiving the field are undivided. These four levels of mind and their perceived objects are shown below in Table 1.

Table 1

Levels of Mind, Basis of Operation & Event

Level of Mind	Basis of operation	**Event Perspectives**
Coarse	Awareness fused with thought and self-structure	Solid object
Subtle	Awareness beyond self-structure	Energetic object
Very Subtle	Awareness beyond temporal processing	Interconnected field
Awakened	Awareness beyond information processing	Space

The table above shows a basic relationship between the level of mind, the event experienced at that level of mind, and the basis of identity operation at that particular level. The basis of operation shifts during meditation and initially this will be a brief *state* but as practice continues the state will become a *trait,* and a permanent developmental stage of identity. The levels of mind, basis of operation, and objects are also hierarchically nested, which means that when operating from awakened awareness beyond information processing that the awareness can cognize space, the interconnected

field, energetic objects and solid objects. However, when awareness is fused with thought and self-structure it will be unable to perceive the subtle, very subtle levels of mind.

Next we are going to examine the four-yoga model of sGam po pa's mahamudra to see how the practice unfolds through the developmental sequence of disembedding awareness as basis of operation from subtler and subtler psychological structures.

sGam po pa's Four-Yoga Model

sGam po pa's four-yoga model meditation practice is designed to facilitate shifting from one basis of operation to another The meditator first calms the mind (shamatha), then by gaining insight (vipashyana) into the constructed nature of the self, time, and individuality recognizes awareness to be already beyond all structures to a basis of operation, buddha nature, without any reference points (Brown, 2006).

One-pointed yoga: calm/staying (shamatha). The practice of calm/staying refers to the calming of mental events in the mind such as thought and conflicting emotions, and the staying of the attentional system on the chosen object of mediation. The basic cognitive skills to be developed are motivation, directing attention, intensifying the attentional interest to the object, and metacognitive awareness.

Motivation needs to be developed to get the practitioner to begin and continue the process of practice. Steering involves the repeated redirection of the wandered attention back to the meditation object. It would be akin to placing and replacing a slide under a microscope. The student learns to intensify the attention by increasing the interest in the meditation object. The practitioner learns to have volitional access of the attention, developing the capacity to shift from vague interest to admiration to fascination of the

object by increasing the salience of the details presented whether that is the breath, sensations of the body, a visual object, thought (mantra), or visualization. This would be akin to zooming in to have a close look at an object under the microscope.

Metacognition in the context of calm/staying meditation is related to the non-conceptual intelligence, or clarity of knowing what is arising within the experience of the meditator, and therefore being able to adjust the meditation accordingly. Metacognition is the bright light that illuminates the slide in one's contemplative microscope metaphor, and allows one to have a close and clear look at the slide.

As students learn to develop calm staying, they sequentially work through the ability to steer, intensify the attention, and brighten metacognition. The tradition has a number of ways of breaking up the stages of calm/staying but essentially the meditation has two main phases: with support, and without support. Calm staying with support describes the development of continuous and complete staying on the meditation object where the object still appears to be permanent and therefore the mind is operating at the coarse level of operations. Calming staying without support refers to the development of the capacity to stay so close to the object that the meditator becomes aware of the impermanent nature of the meditation object as momentary perceptual pixels of information.

Non-discriminatory yoga: insight (vipashyana). Once the meditator develops the capacity for calm/staying he or she is ready to use the stable mind to gain insight into the constructed nature (emptiness) of psychological reality. The function of insight meditation is twofold. First, to come to understand that all psychological phenomena that arise in experience (perceptual, cognitive, affective, and physical) are psychologically

constructed. This first stage of the practice is a negation of the thing-in-itself-ness of the object. It leads to an experience of the psychological openness of experience that releases the ’grab” of the object over the attentional system, which in turn allows for the second stage, which is a clear recognition of the nature of the awareness that perceives the object.

The insight practice typically focuses on first coming to understand the entitylessness of the self. According to the Mahayana tradition it is the *grasping onto self* that is the root of all ignorance (Lamrimpa, 2002). Ignorance can also be translated as *confusion*, i.e. the fusion of awareness with the self that is the root of all confusion. The realization of the emptiness of self happens through a meditative search into the meditator’s direct experience to see if the self can be discovered as a substantial independent entity. This culminates in the direct experience of the nonentityness of the self, the experience of emptiness. The realization of the emptiness of experience can then be generalized to all other psychological structures and experience such as thought, the body, emotional states, pain, etc.

> When the mind is viewed from the perspective of the observer, no inherent self-existing, self-representation can be found. This is emptiness of the person. When the mind is viewed from the event-perspective the events are found neither to be solid, inherently self-existent, nor durable. This is the emptiness of phenomena. Brown (2006, p. 287)

Brown (2006) in his synthetic review of mahamudra through the structure of the four yogas breaks the phases of special insight into the emptiness of self, phenomena, and time. This last stage, the emptiness of time, sets up the basis of psychological operation

needed at the beginning of the yoga of One Taste. Awareness of the emptiness of time deepens the contemplative analysis of experience via insight in meditation that the deepest substrate of awareness does not arise and pass away like temporal experience, but functions outside the construct of past, present, and future and is continuously operating even during waking, dreaming and deep sleep states (Mason, 2010). This is the realization of the very subtle level of mind that is the psychological basis of operations of all the further mahamudra meditations.

One taste yoga: union of calm staying & insight. The basis of psychological operation for the one taste yoga (yugganaddha) is the very subtle, timeless level of awareness. This basis of operation is established by investigating that awareness itself is changeless and beyond the conventional coming and going of time. Exploring the timelessness of the spacious phenomenological field of perception, and then recognizing the nature of the awareness that perceives such field can also establish timeless awareness.

Tashi Namgyal explains that there are three things to be determined about the abiding nature of this very subtle mind, its essence, nature, and characteristics. The essence of mind is empty, self-nature is luminous clarity, and its aspects consist of the diverse display of experience appearance.

The practitioner recognizes that this field of non-conceptual awareness and phenomenological space is inseparable and extends in all directions without boundary. Again quoting Namgyal (p. 216), “Whatever is the nature of space is the nature of awareness. Whatever is the nature of awareness is enlightenment. For this reason

awareness, the expanse of space and the mind of enlightenment, are nondual and inseparable"

This is called *establishing the view.* In essence practice the meditations are less about meditating on something as they are about learning to operate from a new level of awareness, a new basis of operation, and from there to take a new perspective or view on experience. The prior calm/staying training is needed for the stability and capacity to hold the perspective long enough for it to become established.

Once the view of the empty lucid nature of the very subtle level of mind is stable the practitioner learns *reverse samadhi*, to ease up on the relative activity of ordinary coarse level thinking, but to simultaneously maintain the view. Then whatever mental events arise moment-by-moment within the field of the very subtle level of mind is experienced as the non-dual expression of this field. Non-dual here means that the unbounded field of awareness-space and the objects in awareness arise together, and are *co-emergent* (Namgyal) and *simultaneously* (Brown, 2005) arising.

"When the meditator perceives the clarity of perceptive form and its unidentifiable emptiness as being the inseparable, denuded union of appearance and emptiness or emptiness and appearance, he has gained insight into the intrinsic coemergence of appearance" (Namgyal, p. 233). Tashi Namgyal (p. 225) lays out three stages to the actual identification of the spontaneous coemergence: identifying the mind co-emergence of the mind, which addresses the mind perspective, and the cognitive co-emergence of mental activity and perceptual appearance, which address the event perspective. Brown (2005) calls these mind-simultaneous, cognition-simultaneous, and appearance-simultaneous.

The meditation on the simultaneous co-emergent mind is a process of deeper and deeper familiarization with the inseparability and one taste of the empty lucid awareness and the manifestations of appearance. Initially the student realizes the inseparable nondual nature of the simultaneous co-emergent mind with all cognition and appearance. As the meditation deepens the reactive identification with objects releases and then finally as it matures there is no distinction between awareness and its content. Namgyal refers to this realization as recognizing the abiding nature of awareness as identical with the ordinary mind (p.244). Where ordinary refers to the naturalness of the mind rather than its mundanity.

Non-meditation yoga (mahamudra). At the heart of the mahamudra approach to addressing basic confusion, and associated with adepts Saraha, Maitripa, and Tilopa is the doctrine and practice of amanisakara. Amanisakara (Tibetan: Yi la mi byed pa) is translated as *non-mentation*, *non-egocentricity*, *not taking to mind*, and *non-particularization.* It is at the heart of the third turning approach to contemplative practice (Higgins, 2006) (Brown, 2006).

In the psychology of the abhidharma, the manisakara is the last in a sequence of five omnipresent mental factors of information processing (contact, discernment, feeling, intention and attention) (Tashi, 2010) that are active in every moment of experience. Manisakara has numerous translations, *attention* (Tashi,) *ego centric demanding* (Guenther & Kawamura, 1975), *bringing to mind*, *setting one's mind upon, focus* (Higgins, 2006) *taking to mind, mental engagement, particularizing* (Brown, 2006), *paying attention*, or *taking to mind* (Berzin, 2017). Essentially, manisakara is the activity of the information processing system that engages with a mental event and in doing so

simultaneously creates the experience of subject and object, the attention and the attended. If awareness is con-fused with this attentional movement, it then identifies itself solely as the attentional system and then the larger field of open phenomenological experience (Ground) will be obscured. The construction of an object simultaneously obscures the larger phenomenological field of space, just as awareness's fusion with the attentional subject obscures the pristine open cognition of the infant consciousness. Brown (2006 p. 438) refers to this attentional subject as *individual consciousness*.

Amanisakara is the non-meditation discipline that follows the prior three yogas and provides the meditator with the conditions to realize the nature of mind. In the term *amanisakara* the beginning *A* is a negative particle, and is referring to the negation of the information processing and attentional system (manisakara) of individual consciousness. This is achieved through orienting the nondual timeless awareness beyond identification with the artificial mental engagement of information processing, and towards any specific object towards the whole field of experience. Nonmeditation (sgom med) means precisely this: doing away with any artificial activity that can be considered meditation" (Brown, 2006 p 412).

> When the mind does not move toward any seeming appearing object, and more specifically does-not-take-it to-mind, the most rudimentary basis for any discrimination falls away, and the practitioner completely transcends all false conceptualization. Mastery of not-taking-to-mind completely purifies the mind of any tendency to move toward or away from seeming objects. Specifically, it eradicates any movement of the mind-perceiver and clears the way for undistracted awareness of the natural mind. Brown (2006, p. 415)

> By perfecting this non-meditation, the meditator attains naked, unsupported awareness. This nondiscriminatory awareness is the meditation! By transcending the duality of meditation and meditator, external and internal realities, the meditating awareness dissolves itself into its luminous clarity.
>
> Transcending the intellect is without the duality of equipoise and post-equipoise. Such is the quintessence of mind. Je Phadru (Namgyal, p. 361)

Mahamudra and Brain Research

Drs. Brown, Brewer, Schoenberg, and this author recently completed a study with 30 intermediate level meditators that elucidated these stages of mahamudra meditation as having clear and distinct neurological signatures common to meditators at each stage of meditation (Schoenberg, et. al., 2018).

The study gave the first neurophysiological correlates of discrete mental states during Indo-Tibetan essence-of-mind practice using electroencephalography (EEG). The empirical approach targeted time-frequency-spatial information within the EEG signal using Low Resolution Electromagnetic Tomography Analysis (LORETA) to discrete alpha, beta, and gamma bandwidths. The contribution of this study was its focus on the process of awakening as discussed in this chapter. The two higher stages of mahamudra meditation, one-taste yoga and non-meditation yoga were differentiated into four specific meditative stages with each yoga comprising two meditative states.

The EEG findings indicated two major patterns. The first was that the current density upon entering the meditation state weakened in comparison to baseline control

conditions observed in all frequencies and regions of interest. It is hypothesized that this was because the foundation of essence of mind meditation practice is to shift out of the cognitive/brain effort-effortless axis into recognizing aspects of mental experience that are always already present.

The second main finding was that while the default mode network activity in the medial ventral pre-frontal cortex and posterior cingulate cortex did not significantly increase across meditative states there was a unification of enhanced beta and gamma band density magnitude increasing from meditation state1 (ocean and waves) through to meditation state 4 (stabilized non-meditation awakened awareness) that spanned the anterior cingulate cortex (ACC), precuneus, and parietal lobes.

This separation of the default-mode network and the executive functioning system reveals an active executive functioning and yet non-self-referential pattern of activity i.e. the executive functioning of the brain was operational while the basis of operation shifted beyond the self-structure to timeless awareness and then awakened awareness.

The results also indicate that as progression of the effortlessness became stronger there was enhanced ACC (executive functioning/self-regulation), parietal and insular activation suggesting the activation of brain networks associate with saliency, conflict monitoring, emotional control and shifts in perspective-taking that are inferred as supporting the very subtle meditative states of spacious awareness, non-duality, emptiness of phenomena, lucidity and referencelessness.

Numerous EEG studies have revealed that EEG bands in the higher frequencies (beta, gamma) have been associated with the experiences of selflessness, non-judgmental awareness, and compassionate loving kindness (Schoenberg et.al, 2017). The Indo-

Tibetan essence-of-mind research showed that the anterior cingulate cortex (ACC), the central brain structure involved in executive functioning, (working memory, theory of mind tasks, encoding reward prediction and prediction error, emotional regulation, cognitive processing), homeostatic physical states (hunger, thirst, awareness of breath etc.), and the encoding of stimuli valence through sensory modalities was active in the gamma bandwidth. This suggests enhanced activity of executive control capacities increasingly engage in maintaining *the view* as the practitioners shifted to deeper level of natural effortless meditation.

Increases in Gamma frequencies were also recorded in the parietal pathways of which the ventral stream relates to perspective shifting, such as from a first person subjective perspective to that of a third person observer. Simultaneous to the continued activation of the parietal pathways, the self-referencing activity associated with the posterior cingulate cortex (PCC), part of the default mode network, remained deactivated throughout the stages of meditation. This was interpreted as relating to the phenomenological shifting from identification with the self (PCC) and to that of a referenceless basis of operation (parietal).

Beta frequency in the insular cortex associated with the metacognitive awareness and the modulation of interoceptive and emotional stimuli were also recorded. The researchers hypothesized that this was a possible neural marker for the non-preference or *equanimity* towards internal stimuli, which is a central marker of stage four, awakened awareness.

Further research is warranted, but one might hypothesize from the results that just as these states give specific neurological signatures so will the trait acquisition of these

states as a permanent basis of psychological operation show specific neurological signatures. As practitioners engage in repeated meditative state practice, and the integration of the state into their lives, their basis of operation begins to permanently shift, and this is paralleled by a transformation in the neurological activity of the brain that can be measured. It is hoped that such research will support the legitimization of Indo-Tibetan contemplative psychology as a powerful means of reducing suffering and supporting the flourishing of positive mental states and altruistic engagement.

rDzogchen

rDzogchen, or great completion practice, is the culmination of contemplative practice in the indigenous Bon tradition and the oldest Buddhist tradition in Tibet, the rNing ma. In both systems it is the apex of nine stages where each system is a practice path unto itself, and there are different paths of practice for different levels of understanding. In the Bon tradition the lower stages focus on shamanic practice while the rNing ma model addresses the foundational Buddhist practices of the Hinayana. Both traditions then progress through Bodhisattva teachings on emptiness and compassion, and then Tantric approaches using visualization and yogic techniques to culminate in rdzogchen.

Classifications of rdzogchen

rNing ma schools have classified the rdzogchen teaching into three series of teachings. The first is the *sems sde*, or *mind series*, which provides the most detailed step-by-step explanation and instruction in the path with an emphasis on non-conceptual awareness knowing. This approach is similar to the four yoga model of sGam po pa. The

second series is the *klong de*, or *space series*, where the approach is more direct, immediate and emphasizes non-conceptual space. The methods rely upon remaining within the meditative view through the use of sensation and other direct sensory experience. Particular postures, belts, and sticks are used as a support to create powerful sensory experience through which the practitioner can easily recognize directly the phenomenological unbounded openness of experience (Chogyam, 2002). The third series is the *mengak de*, *the secret precept series*, which contains little instruction, just simple descriptions and methods on how to maintain the view. The late Dudjom Rinpoche, leader of the rNing ma school clarified that the Mind series attracts those attached to mind, the Space series attracts those individual predisposed to spaciness, and the Secret Precept series appeals to those with aversion to a graduated path (Keith Dowman, 2017).

As an example of the rdzogchen tradition this exploration will focus on the A Khrid system from Bon rdzogchen. The A Khrid tradition with its clear step-by-step systematized and manualized approach to contemplative practice is akin to the popular treatment manuals in contemporary psychotherapy. As a system it could be classified as a mind series of instructions within the rNing ma system and the comparable to the approach of sGam po pa's mahamudra (Reynolds, 2014). As such it provides a systemized approach that parallels and expands upon the mahamudra four-yoga model.

Bon is the indigenous tradition of the Tibetan plateau that originated from an ancient empire, Zhang Zhung, that includes areas known today as Iran, Tajikistan Afghanistan, Tibet, Kashmir, Pakistan, and India (Reynolds, 2014, & Brown, 2017). The founder of the tradition was a Buddha known as sTon pa gShen rab who predated the Indian Shakyamuni Buddha by many centuries. According to the Bon tradition itself

sTon pa gShen rab is recorded as having lived approximately 9800 years ago (Martin, 2009). The Shen clan continues today as one of the main Bonpo family lineages.

The Bon tradition is composed of both shamanic ritual practices for gaining benefit and prosperity in this life known as the causal Bon (rgyu'i bon), and those higher spiritual teachings of Tönpa Sherab, known as the fruitional Bon ('bras bu'i bon) which consist of sutra, tantra and rdzogchen practices akin to those found in the Buddhist lineages originating from India (Reynolds, 2014, & Brown, 2017).

There are four transmission lineages of rdzogchen within Bon; the Zhang-zhung snyan rgyud (Oral transmission from Zhang Zhung), the rDzog chen yang rtse klong chen (The Great Perfection from the Highest Peak of the Great Vast Expanse), the Ye khri mtha sel (Removing Limitations from the Primordial State) and the A Khrid (the Guiding Explanation for the Primordial State) (Reynolds, 2005). The A Khrid system of meditation was mainly practiced at Menri monastery, the seat of the tradition. The lineage originates from rMe'u ston dGongs mdzod Ri khrod Chenpo (1038-1096), who synthesized prior cycles of teachings into an 80-session course of contemplative study (Achard, 2012) (Reynolds, 2005). After Ri khro, 'the Great Hermit', the A Khrid manual of practice was transmitted through nine generations and in the process was condensed to 30 sessions. The ninth lineage folder of the A Khrid system Bru rGyal ba g.Yung drung (1242-1290) condensed the system to a 15 session manual which became the most popular version of the A Khrid teachings, and the one discussed below. The A Khrid teachings were brought to the West after the master sLod dpon Sangs rgyas bsTan 'dzin (d.1977) received a vision from the Bon protective deity, Ma mchog Srid pa'igyalmo, in

which he was informed that to preserve the Bon tradition the teachings would need to be written down and taught across the world, including the West (Brown, 2017).

The A Khrid System of rDzogchen

Brown & Gurung (2017) in their translation of the A Khrid pith instructions reveal how the commentary of the A Khrid divides practice into three main phases: bringing the unripened mind stream to ripening, bringing the ripened mind stream to liberation, and bringing the liberated mind-stream to the completion of Buddhahood.

Ripening the unripened mind stream. The unripened mind is brought to ripening through four sessions of practice. These sessions of practice can vary in length depending on the capacity of the practitioner. Whether the session takes days, weeks, or months, the session is completed when the practitioner's meditation shows the relevant signs of maturation as indicated by the text and commentaries. The first *Meditation on Impermanence* weakens the practitioner's attachment to everyday affairs and increases the desire for contemplative development.

> Years keep blending into months. Months keep blending into days. The exact time of reaching death cannot be planned. The exact time of death is uncertain. The conditions of death are uncertain. The only thing that remains is that you will die. Then you will not hold onto anything or any other person whatsoever. Your time of death is unpredictable. Druchen Gyalwa Yungdrung. (2017, p. 57)

By reminding the practitioner of the precious opportunity presented by access to the teachings, and the impermanence of life with no clear knowledge of when their death might occur, the motivation of the student is increased to a level of peak performance necessary to make developmental gains.

The second session, *Setting the Intention and Taking Refuge*, is designed to set a strong motivation directed by a compassionate intention to serve all beings, and develop a deep Bond of trust and faith in the masters of the lineage and their positive influence on the contemplative practice.

The third session, *the Mandala Offering*, is a symbolic act of making offerings. This is designed to increase the ratio of positive mental states to negative states of mind, and therefore support the cultivation of wisdom and compassion. Through visualization the practitioner builds an imaginal representation of great human and natural riches; beautiful mansions, jewels, works of art, gardens, forests, oceans etc. The practitioner generates visual, auditory, olfactory and gustatory representations and then practices offering this virtual universe and all its inhabitants to the teacher and the lineage. Since the mind and brain responds to imagery with the same conditioning as actual sensory experience the repeated acts of generosity loosen selfishness. In Buddhist psychology it is understood that generosity makes the mind more open and spacious reducing the cognitive and affective agitation caused by self-grasping.

The fourth session is the *Guru Yoga*, or *mentor bonding* practice, through which the meditators open themselves to the *influence of the gift waves* by internalizing their mentor through the practice of visualization. It is through this process that the seed of the practice that will bear fruit as Buddhahood is both internalized as the inner master, and recognized as the essence of the meditator's own mind.

Bringing the Ripened Mind-Stream to Liberation. The ripened mind is brought to liberation through the second phase of six sessions. These sessions traverse the same psychological territory as the four yogas of mahamudra. Session five and six,

Concentration With and Without Attributes, are devoted to calming the events of the mind and developing attentional stability. First by using a meditation object, in this case a Tibetan letter *A*, and then secondly by resting the mind directly into the awake, empty, rootless, relaxed and still nature of awareness.

Through the seventh session, *Bringing Forth the Benefit*, the practitioner recognizes his or her basis of identity and psychological operation as being beyond the constructions of self, and time. Through the practice of mixing awareness into the visual perception of the outer open sky itself, and recognizing the perceptual non-duality between the awareness that is seeing the sky and the openness of the cloudless sky, one come's to recognize the spacious field of lucid, intense, and brilliantly awake awareness that is always present in each moment.

> Directed at the clear sky, free of clouds of wind, set up the essential body points and gaze as previously described, and let the [view arise].
>
> Focus your awareness on the surrounding space. Mix together the [surrounding] space and awareness completely [until it is one field of empty awareness-space]. Suddenly they will come together. Druchen Gyalwa Yungdrung. (2017, p. 117)

The eighth session, *Pointing Out the Meaning of the Natural State*, relies upon the practice of breath retention (vase breathing) and meditation on the central channel. This approach uses the altered state produced to eradicate the mind's coarse layer of conceptual thought, and increase the ability for the recognition of the awakened awareness through the door of its lucidly clear knowing (Brown, 2017, p. 124)

In the Indo-Tibetan model the nervous system is described in terms of a subtle microstructure that involves four neuropsychological structural-functional elements:

pathways, complexes, secretions and energies. These are known as channels, wheels, drops, and winds. According to contemplative neuropsychology these structures and functions are active across ordinary disorganized reactive mind body states and the extraordinary open blissful and regulated states of awakening (Lati, 1980). The very subtle mind of pure open awakened awareness is supported structurally at the level of the central channel, a first person functional correlate of specific deep brain structures (Loizzo, 2012). The breath retention helps to access the brain stem of the nucleus ambiguous through the vagal control of cardiorespiratory rhythms. This mechanism activates a mammalian diving reflex left from our earlier evolution (Heller et al., 1987) which gives the meditator access through meditative stimulation to the brain structure-function that supports clarifying the nondual open awareness through reducing the obsessive conceptual thinking of the frontal cortex. By enlivening the deep sensory information of the inner body, the lucidity of the awareness is brightened and the realization strengthened.

> Using the visualization of the channels and methods mentioned above, then you should practice staying in the natural state. Then using this profound skillful means, in a little while the purity and impure of [ordinary] consciousness will be separated out…. The impure dregs dissolving into the domain of space, conceptuality is removed by itself, and awakened awareness shines forth nakedly. As the mass of clouds of conceptual thought becomes purified, primordial wisdom becomes clear, just as [the sun becomes clear] when no longer covered by clouds…. The meditative experience stays inherently in the mind stream. Shining

> forth as transparent and very clear, without being covered by obscurations. Druchen Gyalwa Yungdrung. (2017, p. 124)

Getting Rid of the Stains Created by the Ordinary Mind is the ninth session devoted to the stabilization of awakened awareness. The first stage of this session is Setting Up the View: since the realization is unstable the meditator is to practice continually setting up the view (space gazing) so as to repeatedly shift the basis of operation to awakened awareness more often and for longer periods of time. The second stage is *Dismantling the Ordinary Mind*: according to Shar rdza bkra shis rgyal mtshan (1859-1933), as well as Brown & Gurung (2017) dismantling entails the dismantling of the individual consciousness, the reference point that does the setting up and recognizing of awakened awareness, and all the conceptual thought associated with the process. This is akin to sGam po pa's Non-Meditation with its emphasis on amanisakara, not-taking-to-mind. Thirdly, there is Automaticity: awakened awareness is revealed as an uncreated basic quality of the mind and thus is able to sustain itself automatically at all times and in all situations.

> Third, finally after setting up and dismantling there is automaticity. After dismantling and without purposefully mediating, extend the rope of mindfulness and cultivate the state of automatic non-meditation and non-distraction. There is nothing whatsoever to meditate on. Through these pith instructions about remaining undistracted, the continuity and lucidity of awakened awareness is shown. Druchen Gyalwa Yungdrung. (2017, p.130)

The ability to stabilize the automaticity of awakened awareness leads to the tenth stage: *Taking Stainless Primordial Wisdom as the Path*. The meditator now practices maintaining and integrating this basis of operation whilst engaging in systematically more difficult circumstances. Starting with maintaining the realization whilst engaged in supportive activities such as reading texts and engaging in visualization and physical yoga practice, and leading to neutral activities such as mental reflection and analysis, the integration is completed when the practitioner can maintain awakened awareness with all negative emotional states and stressful life circumstances.

> While in this automatic state of skilled practice, learn to mix awakened awareness with all types of situations on the path such as various emotional states- fear, terror, aversion, pity, disgust, vomiting, misery, and sorrow, happiness and comfortableness, and so forth- and with cognitive states such as discursiveness, apprehension, doubt, hope and fear, suffering and all unfavorable, disagreeable or unsuitable circumstances, and then with common daily activities, such as eating, walking, moving and sitting…..All activities of body, and speech- all conduct pure and impure; virtuous and non-virtuous; good, bad or neutral- whatever you do becomes skilled practice. Druchen Gyalwa Yungdrung. (2017, p. 135)

The tenth session completes the process of liberation. At this point of development the meditator has developed the capacity to operate naturally from awakened awareness, the level of lucid, open non-dual awareness prior to the

constructions of the information processing systems of perception, attention, temporal awareness, self-construct, emotion and cognition.

Bringing the liberated mind-stream to the completion of Buddhahood. The third phase of practice entitled, the *Practical Guide for Liberation*, *Reaching the End*, begins with the automaticity of awakened awareness as the start and then culminates in the maturity of buddhahood (Brown, 2017). In the eleventh session, *Subduing the Newly Arising Habitual Karmic Propensities During the Night*, the practitioner learns methods focused on maintaining awakened awareness into sleep and dreaming. This is known as the practice of sleep and dream sleep yoga.

Sleep yoga is the first practice to be developed and this entails maintaining the realization of awakened awareness whilst in the formless state of deep dreamless sleep. According to the tradition bringing awareness into the state of deep sleep is the transformation of the most ignorant substrate of consciousness, and parallels the capacity to maintain awareness throughout the dying process (Wangyal, 1998).

> The best practitioner mixes concentration meditation with sleep and remains mindful right into entering into sleep and recognizes awakened awareness throughout sleep. Druchen Gyalwa Yungdrung. (2017, p. 138)

The second practice, *Mastery*, is Dream yoga, the process of maintaining awakened awareness while in the dreamscape and simultaneously engaging in activities that deconstruct the deep beliefs that have been structured based on awareness's identification with a life time as an individual human (Wangyal, 2004, & Norbu, 1992).

According to Buddhist psychology the dream state is the most responsive state from which to transform the deep habitual karmic tendencies that have built up in the mind (Norbu, 1992). Once practitioners recognize that they are lucidly awake in the dream state they then engage in visualization practice changing themselves into a meditation deity and their body and limbs into the assembly of deities belonging to the mandala mansion of the deity. Meditators are essentially deconstructing their world and self-image at a very deep level. The ability to transform the self from one structure to another reveals a lack of self-reification and recognition of the emptiness or constructed nature of all self-images. As such these dream practices are the method through which all deluded appearances are mastered (Brown and Gurung, 2017). Practitioners continue by engaging in actions impossible in the waking state such as walking through walls, flying, breathing underwater, walking through fire, becoming transparent, moving through mountains, and relating to fearful scenarios with mindfulness cognizant of the illusory nature of the show (Brown and Gurung, 2017).

The third sub phase of the eleventh session is *Multiplying*. Since the dream state is a virtual mind created environment only limited by the mind, the practitioner engages in emanating multiple copies of themselves throughout different dreamscapes, transforming elements, taming all dream being, and transforming their own emotional states into dream figures.

> The mental body that is made of habitual karmic tendencies can manifest as anything once you have mastery over it. By just being mindful of this mental body it already transforms itself. The mind, the agent of movement, is able to go

> where it is guided. If these three occur- 1) just by imagining it, you can go to whatever place you want, 2) whatever appears like this, you are able to change into anything, and 3) whatever this mental body thinks to do, it becomes that- then all deluded dream-like appearances are brought into the path. Druchen Gyalwa Yungdrung. (2017, p. 141)

Having thoroughly understood the illusory constructed nature of dream appearances as the lively creative expression of mind the meditator deepens the realization in session twelve, *Training Liveliness with Respect to Appearances During the Day*, and session thirteen, *Taking Conceptual Thought as the Path*. The recognition of appearance as the lively energetic expression of the primordial mind is brought to the waking state. All sights, sounds, smells, tastes, sensations, and thought are recognized as the lively expression of awakened awareness until the meditator can no longer be lost in ordinary experience. This continuous uninterrupted non-meditation views all perceptions as 'self-arising and self-liberating' (rang shar ran grol).

> This practice entails holding the view of the inseparable pair- the vast expanse of the universal ground simultaneously to viewing whatever arises within that vast expanse as the liveliness of awakened awareness- and then whatever arises goes its own way and therefore is immediately liberated leaving no trace. When there is no mental engagement whatsoever, such that whatever arises is left completely in its own way and therefore is immediately liberated immediately leaving no trace. When there is no mental engagement the immediately arising event does not form

> a karmic memory trace. Holding this view established the conditions for the automatic release of all ripening habitual karmic tendencies- a process known as dharmadhatu exhaustion. (Brown, 2017, p.144)

The fruition of the process of dharmadhatu exhaustion brought about by the practice of *self-arising and self-liberating* (rang shar ran grol) is that all past karmic imprints stored over this life-time and received by virtue of having a human body with ancestral, cultural, and racial conditioning, are released over time. The process is completed when the mind becomes *stainless* (drimed), as all negative mind states have been purified, and all the positive qualities of mind (kindness, generosity, patience etc.)

The next session, session fourteen, *Continuously Pointing Out* begins when through the stability of realization and the momentum resultant from dharmadhatu exhaustion the intrinsic intelligence of awakened awareness continuously reveals the rest of the path to itself by itself. The meditation instruction is to know the mind's limitlessness beyond the limitations of the individual and external reality. This focus on the limitlessness leads to the direct realization that all archetypal buddhafields, all realms, and times are always already right here (Brown, & Gurung, 2017).

Brown (2017) describes how the realization goes through a three-step process of stabilization. First, there is the extended practice of the formal meditation and post-meditation:

> Staying uninterruptedly in a state of one-pointedness (on the view of the inseparable pair of unbound space and awakened awareness) across the three gates of body, speech and mind, is concentrated evenness; conduct throughout the

various activities and behavior is post-meditation. Druchen Gyalwa Yungdrung. (2017, p. 170)

As the meditation matures second phase known as *heroic state meditation* begins:

> By that automatic state, there won't be even the slightest distinction between holding or not holding mindfulness, sleeping and waking, and being distracted or undistracted from the real nature of the mind. There is still a slight distinction between the times of meditation and post-mediation, clarity and lack of clarity, or increasing or decreasing of the meditation.
>
> Druchen Gyalwa Yungdrung (2017, p. 174)

This process culminates in *mastery meditation*. Freed from the slightest metacognitive activity to maintain the meditation, the state becomes undistractable, and there is no difference between meditation and post-meditation.

> You never leave a state wherein the meditation never becomes distracted nor grasps at anything, and there is no difference whatsoever between meditation and non-meditation. Meditation and non-meditation become inseparable. Whatever your activity may be, you never move from awakened awareness. Holding or not holding mindfulness, going or not going to sleep-everything- becomes inseparable from the real nature of the mind in very single instant.
>
> Druchen Gyalwa Yungdrung (2017, p. 175)

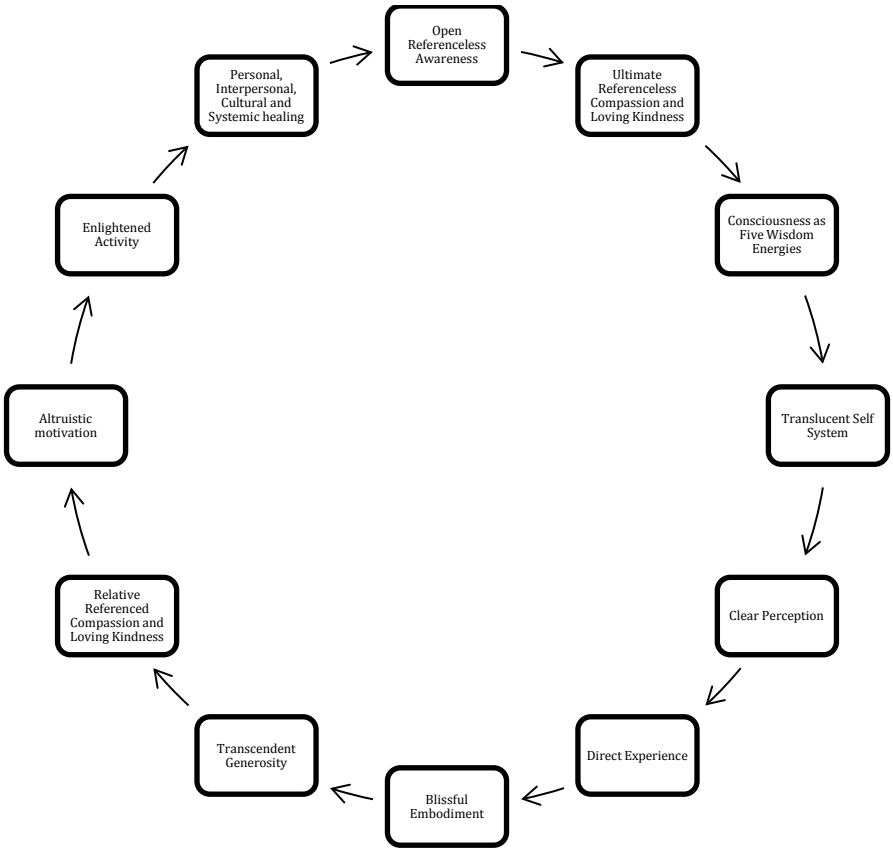
This fruition manifests itself in realization of three dimensions: the realization of the enlightened bodies, the primordial wisdoms, and enlightened activity in the form of skillful means, great compassion/loving kindness, and omniscience.

The Three Bodies

The three enlightened bodies, dharmakaya, sambhogakaya, and nirmanakya, (kaya) can also be translated as fields or dimensions of the enlightened mind. The dharmakaya, dimension of the teachings, (or Bon sku in Bon) is the field or dimension of the unbounded, unborn, uncreated open ground of reality akin to the purification of deep sleep. The samabhogakaya, enjoyment dimension, arising from within the open field of the dharmakaya, is the field of light in the form of brilliant, primordial, lucid, lively awareness, and its nondual manifestations in the form of pure geometric archetypal light fields (Buddha realms) akin to the purification of the dreaming mind. The nirmanakaya, emanation dimension, represents the infinite display of reality all expressing itself for the compassionate intention to awaken all beings to their true nature as radiant self-arising-self-liberating liveliness akin to the purification of the waking mind. This realization can be seen through the lens of the 12-link cycle of conditioned dependent origination that we examined in chapter two as 12 links of enlightened fruition (see below figure 2).

Figure 2

Twelve links of Enlightened Fruition



The Five Primordial Wisdoms

The primordial wisdoms describe how the human mind operates once it is gone through the purification process of the contemplative path, and arrived at the fruition of buddhahood (Thrangu, 2011).

With the permanent eradication of unconscious confusion and ignorance, the sense of reality's solidity dissolves and the *buddha* (awakened) wisdom of all pervading space wisdom reveals itself.

With the transformation of the all-base consciousness (universal unconscious) delusion is abandoned and insight into the true nature, the dharmadhatu, the

> inherent nature of the completely pure aspect of the delusion based appearance is attained…It corresponds to the primordial nature that knows the nature of reality exactly as it is. Thrangu (2011, p. 61)

Through the purification of anger and default consciousness the *Vajra* (diamond) wisdom mirror-like clarity becomes operational. This primordial awareness is able to simultaneously recognize the completely pure space wisdom of the dharmadhatu whilst also clearly seeing and understanding the dualistic deluded mind of others. The mirror-like awareness has the capacity to know non-dual non-conceptual openness and simultaneously understand how the cause and effect of duality functions.

> From the perspective of mirror-like primordial awareness, a Buddha, knows all of the personal, delusion-based appearances of all sentient beings, their individual differences, their negative conditions and their sufferings. This is the function of mirror like primordial awareness of a Buddha. Thrangu Rinpoche (2011, p. 62)

Through the transformation of hedonic tone, the feeling of like and dislike towards others, and the grasping emotion of pride associated with self-reification, the *Ratna* (jewel) wisdom of equanimity becomes operational. This wisdom-awareness views all appearance within non-dual openness as equal and does not develop attachments to any specific content. Therefore, the discrimination between the differences between self and other dissolves and every being is felt as being of equal worth.

Through the transformation of mental formations and desire the *Padma* (lotus) wisdom of discriminatory awareness balances the wisdom of equanimity. In this way a Buddha does not fall into a lack of discriminating good and bad actions despite their equality within the field of awareness. Discriminating primordial awareness is not clouded by projection and perceives the unique differences of specific individuals and circumstances spontaneously and simultaneous with primordial openness.

Through the transformation of the perceptual system and jealousy the *Karma* (action) all-accomplishing wisdom of purified executive functioning become operational. It is through this wisdom that undeluded decision-making, and action, can be expressed without hesitation as spontaneous appropriate conduct in the service of alleviating the suffering of interdependent life. Such activity is described as being *wrathful* in that it destroys the outer and inner obstacles of beings (Thrangu, 2011). This powerful awareness allows for a buddha's service activity of energized and appropriate teaching and counseling.

The operation of the five wisdoms allow a buddha, motivated by great compassion and loving kindness, to integrate his or her understanding of the path, the needs of individual beings, and the application of skillful techniques into an appropriate therapeutic intervention. The true fruition of Buddhist contemplative psychology is the development and flowering of heroic altruists devoted to serving the greater social good (Loizzo, 2012).

Looking at the underlying architecture of the mahamudra and rdzogchen systems presented a common pattern emerges. In the process of contemplative psychological development it is necessary to first recognize, and then stabilize, a basis of operation

before it can integrate the relative activity of body, speech and mind into a non-dual realization. For instance, in the mahamudra the practitioner realizes the very subtle timeless mind, and once that view is established as the basis of operation then the relative activity of mind is allowed to arise within that timeless very subtle spacious field. The four yoga mahamudra tradition has a greater differentiation of levels of metacognitive operation prior to awakened awareness than the A Khrid system. As such the four-yoga mahamudra articulates the process of establishing a basis of operation and its non-dual function at the subtle (emptiness of phenomena/dreamer and dream), very subtle (one taste reverse Samadhi), and the awakened level of mind. Daniel Brown explains in his translation of the A Khrid pith instructions that the unique feature of the A Khrid system is its quickness and single-minded pursuit of awakening through using very intense comprehensive methods (Brown, 2017). As such, the A Khrid system cuts to the root of the issue and focuses on establishing awakened awareness, and then articulates in much greater detail the practice and stabilization of its non-dual liveliness. What can be seen in the mahamudra and rdzogchen is a process intrinsic to human development. There is an orientation to a whole field (subtle, very subtle, awakened) that leads to the recognition of a metacognitive basis of operation. That new basis of operation then orients to the perceptual and cognitive expressions within the whole phenomenological field whilst simultaneously recognizing objects as an integrated expression of that field. When integrated, the intention shifts to establishing the next whole field as a basis of psychological operation. Because the whole fields are nested contexts (the awakened level includes, the very subtle, the subtle, and the coarse) this allows for the A Khrid

system to cut through to the awakened level and in the non-dual integration of liveliness all prior levels of development are subsumed.

In the next chapter attention will be turned to a very different exploration of psychological growth, as seen within the context of Western adult developmental psychology.

CHAPTER FOUR

ADULT DEVELOPMENT

In this chapter the adult developmental theories will be examined that can best illuminate the psychology of identity development as articulated in Indo-Tibetan mahamudra and rdzogchen contemplative practice. The intention is that developmental theory can provide insights that allow for a deeper integration of Eastern and Western perspectives.

Adult developmental theories differentiate adults in the following ways: phasic theories according to specific periods and age spans, trait theories according to personality characteristic, maturity theories according to the psychological integration and lack of defensiveness self, and stage theories according to how people view their experience and make sense of life (Cook-Greuter, 1999).

Phasic theories divide adulthood into a number of segments with age range for each phase of changing common adult role, pivotal events, cultural patterns, and crises. These theories tell the narrative of the adaption or maladaptation to the culturally specific and universal human life cycle.

Trait character theories provide a useful way of classifying the differences in people based on their trait differences. Whilst many people might be at the same phasic stage of life their traits are going to be a more unique expression (Myers-Briggs, Enneagram, Five Factor Model, Attachment).

Stage theories models of adult development are divided into two major approaches, that of Structural/Cognitive Developmentalism (SD) (Baldwin, 1906; Case,

1985; Fischer, 1980; Kohlberg, 1969; Selman, 1974), and those of Constructive Developmentalism (CD) (Torbert, 1987, 2004; Kegan, 1982).

Structural development refers to a developmental process first articulated by Baldwin (1906) and best articulated by Piaget (1985). This process describes the process through which individuals construct conceptions of their experience over time through interactions with the physical and social world (Piaget, 1932/1965, 1995). Subsequent structural developmentalists have studied the application of cognitive development to a wide range of specific fields, from morality and self-understanding (Kohlberg, 1994; Selman, 1980; Hart & Damon, 1986; Keller & Wood, 1994; Dawson-Tunik, 2004) to science, logic, and mathematics (Case, 1991; Siegler & Atlas, 1976; Dawson & Stein, 2008).

Constructive developmentalists (e.g., Kegan, 1980) share the same fundamental notion of development with SD theorists but have focused more exclusively on social and ego development, and they have also incorporated psychodynamic components into their theories (Loevinger, 1976; Kegan, 1982; Cook-Greuter, 1990); CD theorists have also focused primarily on adult development, while SD theorists have focused on both adult and child development. Theorists from both SD and CD traditions claim to describe qualitative shifts in meaning-making processes across the lifespan. These qualitative shifts result from a process of hierarchical integration in which higher-order skills and knowledge that are constructed through the integration of lower-order skills and knowledge (Kohlberg, 1969; Piaget, 1975). Each qualitative shift represents a new level of hierarchical complexity or stage of developmental growth.

Cognitive Development

Jean Piaget was the first Western developmental psychologist to propose and articulate a stage model of mental growth. In the field of adult cognitive development his research was expanded upon by likes of Arlin (1984), Armon (1984), Basseches (1984), Riegel (1973), Benack (1984), Commons and Richards, 1984), Demetriou (1990), Fischer, Hand, and Russell (1984), Kohlberg (1990), Koplowitz (1984), Labouvie-Vief (1980), Pascual-Leone (1984), and others. Piaget and the work on the post-formal stages of cognition such as Commons and Richards (Commons, & Richards, 2002) and Koplowitz (1984) are cognitive developmental models most relevant to this exploration of contemplative psychology. It should be noted that cognitive development is not the same as the more fundamental mental power of working memory or processing speed, which involves the speed and volume of information an individual, can process at any given time.

By researching how aging children made sense of their experience in different cognitive domains Piaget discovered that cognition unfolded sequentially over time following a predictable pattern. This pattern leads from infancy to adulthood through four main phases: sensorimotor, preoperational, concrete-operational, and formal operational (Piaget, 1952).

Each stage is a qualitatively distinct self-organizing systemic whole, organized by an underlying pattern of cognitive operations. Each stage of development processes information across all knowledge domains according to the cognitive strategies unique to that developmental stage (Piaget, 1971). Through the developmental process humans integrate, and reorganize the prior developmental level from the more complex

hierarchically superior stage. By *making the subject an object* (Kegan, 1995), the individual is able to *transcend and include* (Wilber, 2007) the prior level of development.

At the sensorimotor stages (birth to two years old) the schemas of sensation and physical action are the self-organizing operations. This stage is integrated and then leads to the preoperational stages (2 to 7 years old) in which action schemas based on actual experienced events are internalized. The concrete operational stage (7 to 11 years old) follows during which cognitive operations can be performed on mental representations of actual concrete objects and events. Cognition is very rudimentary at concrete operations and literally adheres to the concrete perception of objects, societal rules, and roles of functioning. In the next level of development, formal operations (11 to 16 years and onwards), the individual cognitively operates on the concrete stage and is able to conceptualize multiple combinations of concrete variables, which then become hypotheses to be tested. This level of abstract reasoning, capacity for multi-step problem solving and metacognition is the culmination of the developmental process in Piaget's developmental map. Over the last two hundred years there have been enough adults at this level of development for it to have matured socially into what has been termed the "WEIRD" world view (western, educated, industrialized, rich, and democratic, the modern Newtonian, scientific, materialistic, and objective paradigm of mainstream society (Christopher, Wendt, Marecek, & Goodman 2014). In this paradigm, reality is composed of permanent reified objects believed to exist independently of the knower, in closed systems, following the laws of linear causality, and influenced by independent variables (Koplowitz, 1984). From this perspective the modern mind (Kegan, 1996) of the separate individual moves through the world using the rational analysis of formal

operations to anticipate possible causes and effects, and make informed cost/benefit decisions.

One of the most articulated models of adult cognitive development has emerged through the work of Michael Commons and his associates. Commons is a theoretical behavioral scientist and complex systems theoretician. His Hierarchal Complexity model (HCM) is a mathematical psychology framework based on information science.

In Commons' stage conception of cognitive development, there are five post-formal cognitive stages beyond formal operations (Commons & Chen, 2014) At the first stage, systemic cognition develops to be able to operate on formal operations, and constructs multivariate systems by coordinating multiple inputs and considering their relationship within a given context. Commons suggests that most scientific work operates at this order: "Science is seen as an interlocking set of relationships, with the truth of each relationship in interaction with embedded, testable relationships. Researchers carry out variations of previous experiments. Behavior of events is seen as governed by multivariate causality" (Commons, 2002, p.8). Commons estimates that 20% of the US population can operate at this level without support.

Commons estimates that 1% of the US population are at the second post-formal stage of metasystemic cognition. This level of cognitive development operates on systems as objects of knowledge. Metasystemic cognition "compares, contrasts, transforms, and synthesizes systems" (Commons, & Ross, 2008, p. 325). The person can compare and contrast the systems' properties and recognize the actors, causal relations, similarities, and differences between systems.

By cognitively comparing, contrasting, and synthesizing meta-systems, the ability for paradigmatic cognition develops. The third post-formal paradigmatic stage synthesizes multiple meta-systems to form paradigms. Such paradigmatic thinking entails the need for decentration, the ability to pay attention to multiple attributes of an object, so that the reasoning can co-ordinate metasystemic knowledge. Commons notes (2008) that such a cognitive capacity often draws upon fields of knowledge that appear unrelated to the original thinkers of the field and is seen in less than 0.05% of the US population.

Following the pattern established above, Common's fourth stage is cross-paradigmatic and able to either invigorate old fields, or evolve new fields of knowledge (e.g. evolutionary biology + developmental psychology = evolutionary developmental psychology). Thinkers operating at such a level would include Charles Darwin, Albert Einstein, and Max Planck (Commons, 2002).

The final fifth stage of adult cognitive development, meta-cross-paradigmatic cognition, operates on cross-paradigmatic operations and is able to analyze the dynamics, and recognize the limitations of, cross-paradigmatic thought (Commons, 2014). A good example of such meta-cross paradigmatic cognition can be seen in the work of the integral philosopher Ken Wilber in his All Quadrant All Level (AQAL) model that integrates 1st, 2nd and 3rd person perspectives of knowing and their knowledge domains into a single model.

Causality, Variables, Boundaries and Objects

Another theorist whose work will be helpful in this exploration is Herb Koplowitz (1984) who made a useful distinction between the evolution of four concepts through his three adult stages of formal, general system, and unitive operations. These four concepts were: the understanding of *causality*, how events determine aspect of other events; *variables*, how objects and forces related to each other; *boundaries,* the differentiation between two event or objects; and *objects,* the conception of external self-existent entities are explored at the three stages.

At the formal operations stage causality is conceived of as being linear. An event is caused by another event caused by another event leading ad infinitum. Variables are independent and not dependent on that of another. Boundaries are closed; a system does not exchange information with the outside environment. Objects in the world are permanent and *out there,* and the nature and existence of the object is independent of the subject.

At the level of general systems causality is conceived as circular. An event is caused by a pattern of interactions. Variables are interdependent of one another. Boundaries are open between a system and its environment allowing for an exchange of information. There is no clear distinction between one variable and other. Objects in the world are recognized as permanent and yet it is understood that the knower constructs the meaning of the object.

With unitive operations the construction of Time and Space, the necessary elements to create the concept of cause and effect, are understood as constructs, and all events are thus causally related. Variables do not exist separately in reality and are

unified. Boundaries are constructed in an attempt to make meaning, but in reality all boundaries are unbounded and open. A knower constructs objects in an attempt to make sense of the world. Fundamentally there are neither objects nor subjects; both are constructed.

Constructive Self-System Development

Loevinger and the WUSCT

Jane Loevinger (1918-2008) developed and refined the Washington University Sentence Completion Test (WUSCT), a semi-projective assessment for measuring ego development (1970, 1998) that has been used extensively by researchers in the field. Using a novel method of analyzing 36 sentence completions that explore a variety of issues including personal relationships, authority, frustration, and family life, Loevinger and her team were able to reveal nine different stages of ego development.

Loevinger defined an ego state as an organizing synthetic function or filter that the individual uses to interpret life experiences and to generate meaning. It implies a level of character development, cognitive complexity, interpersonal style and set of conscious preoccupations (Pfaffenberger & Marko, 2011). Loevinger (1976) states, "The fundamental characteristics of the ego are that it is a process, a structure, social in origin, functioning as a whole, and guided by purpose and meaning" (p. 67).

Loevinger (1976) was influenced by H. Sullivan's work (1968) on levels of interpersonal maturity and integration. She adopted four of his stages, expanding them as the research data supported the refinements. Loevinger conceptualized a three-tier (preconventional, conventional, post-conventional) nine-stage model of development. Loevinger's theory and measurement have been researched and tested extensively in the

field and a recent meta-analysis (Binder, 2014) concluded that the theory and WUSCT measurement test strong and defendable against serious challenges and objections.

Whilst projective testing has of recent been under fire for its lack of scientific validity, the WUSCT has been extensively studied, including at least 400 studies and half a dozen meta-analyses (Cohn, 2004; Gilmore, 2001; Novy, 1992; Kroger, 2013, Westenberg, 2013) making it "arguably the most extensively validated projective technique" (Lilienfeld, 2000, p.56,).

The internal validity of the WUSCT, the quality reliability and repeatability of the assessment, is measured in terms of the inter-rater reliability, internal consistency, and test-retest reliability. Westerberg et al. reported that the psychometrics of the WUSCT invariably attest to high levels of inter-rater reliability, between 85-95%, with an excellent Cohen's Kappa value reading at about .80. The internal consistency of the WUSCT shows high internal consistency with most studies reporting a Cronbach's alpha of .90 or higher (Westenberg, 2004). The test-retest reliability, which is rarer in a SCT that measures a moment in time, is also high, and according to Westenberg et al. are often about .80.

The external validity of the WUSCT, the degree to which it measures the development of the ego and the meaning-making capacity of the individual, is measured in terms of face validity, construct validity, and predictive validity. The face validity, the argument for the theory and measures usefulness, shows substantial support in more the 1,000 articles and book chapters; the WUSCT as of 2008 has been translated into 11 different languages in 19 different published studies (Blumentritt, 2011). The construct validity of the SCT, whether what is measured correlates with the phenomena of ego

development, has been, according to Westenberg (2004) well established. The instrument shows very strong psychometric properties with "excellent reliability, construct validity and clinical utility" (p.292) with findings in over 360 empirical studies supporting the critical assumptions underlying the ego development construct.

Clinical research with the WUSCT has indicated that certain diagnoses are more connected with pathology at certain developmental stages (Noam and Houlihan, 1990) and that there is a clear decrease in symptom severity in those with higher levels of identity development (Noam and Dill 1991). This is research that is only beginning but supports the idea that adult development leads to increasing levels of happiness and is a topic worth of further investigation. Bill Torbert and his associates working in the field of leadership development have researched the predictive validity of the SCT most outside of clinical psychology. Torbert (2014) found powerful correlations in higher action-logics (ego development as it pertains to business and organizational functioning), with only CEO's and consultants measuring the two highest levels reliably generating organizational transformation leading to larger market share.

Cook-Greuter and Advanced Development

Susanne Cook-Greuter, a student of Jane Loevinger, continued the work of ego development by expanding upon the post conventional levels that Loevinger had researched. Cook-Greuter (1999) began scoring the SCT in 1979 and she reports that she quickly realized that the highest level was not clearly differentiated enough to count for the range of scoring answers. Based on insights from 1800 protocols, she first proposed a revision of the highest stage in 1985 at a symposium for the Society of Research in Adult Development. She completed this work as the study for her dissertation at the Harvard

School of Education. After the scoring of more than 14,000 SCT in an effort to understand the underlying dynamics of advanced development she proposed differentiating the prior Integrated stage into a Construct Aware and Unitive stages. This differentiation was corroborated by research done in leadership by Torbert (2004) and Joiner (2007). A further adaption was made by Mark Forman (2010), a clinical psychologist influenced by the work of the Integral Philosopher Ken Wilber, adding a stage at 1/2 to reflect the developmental stage seen most often in children between 6 to 24 months. This addition gives the updated Loevinger-Cooke-Greuter model 11 stages of development. The stages are names 1, 1/2, 2, 2/3, etc. to reflect that the mid stages such as 1/2, 3/4 stages reflect elements of both stages, rather than describing it as 1.5 or 3.5.

So as to keep the exploration to the point this chapter outlines the developmental levels as seen in healthy individuals. The descriptions below are a synthesis of descriptors used by Wade (1996), Wilber (1986) Forman (2010), Cook-Greuter (2013), and Ingersoll (2010). The majority of adults will pass through the initial stages of pre-personal development although there are those adults with arrested levels due to profound developmental issues such as severe autism, mental retardation, and social neglect who will remain at the early levels.

Pre-personal Stages. Stages from 1 to 2 represent a child's normal maturation from birth to age 6 with the ego identity operating with a preconventional first person orientation.

Stage 1 Sensori-motor- undifferentiated (0-6months). At this primitive stage of development the self is fused and undifferentiated from the surrounding environment. Through the use of Piagetian sensorimotor cognition, the task for the self is to be able to

differentiate the body from the surrounding environment and to recognize the difference between objects and people. The differentiation of the body from the environment and the self from the body allows for the development of volitional action. The recognition of others begins the development of interpersonal metacognition and the capacity to recognize other people as having volition, desire, and beliefs. At this stage of development the good enough attachment relationship provides an internalized sense of security and attunement that leads to the capacity for self-regulation.

Stage 1/2 Emotional-relational (6 to 24 months). At this stage of development Piagetian sensorimotor cognition and preoperational cognition are directed towards to the self. The self is fused with emotional libidinal energy experienced in an undifferentiated way as the self. The self has not yet differentiated from emotions and is unable to tell the difference between the emotions of self and others. The emotional fusion with the caregivers is internalized as the background emotional tone of value and good self-esteem and their attunement is internalized as a capacity for attunement to the self.

Stage 2 Magical-Impulsive: 2-4 years of age, 5% of US adult population (Cook-Greuter, 2007). The self is very elementary in functioning, and is operating from a first person perspective. Piagetian pre operational thinking is applied to the self and the central development is the ability to use imaginal and word symbols cognitively to represent objects in the inner and outer world. The birth of the symbolic self marks emergence of mental self. However, this mental self is not fully differentiated from emotional or physical world. This leads to magical thinking, wherein a child believes that thoughts and feelings directly interact with the world, and assumes intimate causal and undifferentiated connection between mental, emotional, and physical worlds. Due to this lack of

differentiation with the world there is a strong unconscious focus on separation between self and the world with the use of the words “no”, “me,” and “mine” being common.

The self is still fused with impulses and others are only seen as source of gratification. At this level the self can struggle with the lack of capacity for suppression and exhibit acting out behaviors due to the inability to delay gratification and take responsibility for actions. At this point of development the self is also beginning to have the capacity to actively submerge uncomfortable semantic meanings, experiences, emotions and somatic sensations that can lead to psychoneurosis.

Stage 2/3 Opportunistic-Self Protective: older children, adolescents and 5% US adult population (Cook-Greuter, 2007). As with the prior stage Cook-Greuter indicates that 5% of the adult US population function at this level. Here the self makes use of a combination of preoperational (cognitive2) and early concrete operations (cognitive3) to reflect upon itself in such a way that it develops a simple concrete conception of itself. At this level the self still lacks insight into itself however it has gained control over the driving impulses from the prior level of development and as such now has the ability to control itself and is often on guard to control external situations. The 2/3 has the concrete cognitive understanding necessary to know that society has rules that it needs to follow. However, the morality of this self-system is expedience: the self is only bad if caught, and even then is unlikely to express regret or remorse, just anger

The motivation of the 2/3 self is towards its self-serving needs and desires, whether legal or criminal. The self-system is opportunistic and to that end develops a persona to manipulate others and protect its fragile sense of self. It is no longer impulsive yet doesn’t yet understand causality, and therefore lacks planning and an

ability to just act with considerable courage. In relationship to others empathy is not well developed in persons at this level of development, so interactions tend to be based on the desires for control, competing for goods, space, power, and the need for self-respect. Feelings are externalized, friendships blow up easily, yet others are to blame and anger is directed against world.

Stage 3 Mythic-Conformist: older children, early adolescents, 10% adult population (Cook-Greuter, 2007). This is the first personal stage in that the self is using mature concrete-operations to reflect upon itself and is better able to identify with social norms and images than libidinal drives. In having differentiated from its own drives the self-system now has the opportunity to really connect for the first time to others and to sense belonging to a group, which is strengthened by following the rules and roles of the community. As a member of a group rules now become important as significant psychic structures of identity and are understood as being a priori self-existent or mythically preordained. Having aligned the self with the membership of a group, a simplistic second person perspective—"either you are in or out"— now dominates." The self-system does its best to look, act, appear, and talk "right" to maintain membership with the group and thus reject those appearances and behavior not of the group. At this stage the self gains acceptance through following the rules and takes comfort in the sameness of others, easily internalizing norms without question and not wanting to stand out from the group. The self-sense has several basic internal states and those that are negative and do not align with the group are repressed and avoided.

Stage 3/4 Conventional-Interpersonal: older adolescents, young and older adults, 37% of US adult population (Cook-Greuter, 2007). At this stage the self reflects

upon itself using a mixture of mature concrete cognition (Cognitive stage 3) and early formal abstract operations (Cognitive Stage 4). At this stage, finally, the self is able to take itself as an object, and take a third person perspective on its own experience. Capable of introspection and self-understanding persons at this stage are able to recognize in themselves ways that they stand out from the group. As such, the ability to see themselves adds more complex nuance to their self-reflection and there is an appreciation of their uniqueness. At stage 3/4 the sense of uniqueness allows the self to stand apart from the group, bringing a sense of self-consciousness and sometimes also a preoccupation with how others will judge one's differences. These new capacities lead to the ability to appreciate difference in others, and this leads to an increased level of complexity in relationships. This is the first stage where people describe relationships in terms of the inner world of feeling and emotion.

Kegan (1995) describes how this stage fulfills the developmental expectations for adults in traditional pre-modern societies. A person now has a capacity for foresight, the ability to adjust to changing circumstances, and understand notions of adult accountability and responsibility. However, the 3/4 self-system has not yet caught up to the level of self-determination needed to navigate modern society and struggles with finding integrity between self and the membership group.

Stage 4 Rational-Self Authoring: older adolescents, young and older adults 30% US adult population (Cook-Greuter, 2007). This is the target level for our culture at the present time. At this level of development, the self-system is able to reflect upon itself using formal operational cognition (Cognitive Stage 4). Rational-Self Authoring self-systems add linear time to their rational thought processes thinking forward and

backward in time and expanding their social context to include those outside their ethno-national membership group to include others across time and culture who share their ideals and aspirations. They are willing and able to work for the betterment of all. The ability to reason, to have metacognitive thinking about thinking, and reflect upon the conditioning symbols, scripts, norms and conventions of prior levels leads to a more introspective ego, and a concern with the cultivation of a stronger clear sense of individuality free from external authority. Living life by one's own internal authority and chosen standards can cause guilt if not lived up to. At this stage there is a belief in the objective scientific method, in rationality, as well as in empiricism and positivism to uncover the truth about the world. This is accompanied by belief in the perfectibility of mankind.

Stage 4/5 Relativistic-Sensitive: 10% US adult population (Cook-Greuter, 2007). This cognitive level has been the leading edge of Western culture for the last 40 years and is developed by the integration of mature formal operational (cognitive stage 4) and systemic thinking (cognitive stage 5) within the self-system. This is the beginning of general systems thinking described by Koplowitz (1984) with variables that are interdependent, causality this that cyclical, and boundaries between objects that are open and flexible. This 4th person perspectival capacity is characterized by the ability to be aware of the contexts within which the contents of experience arise. This ability leads to a greater interest in self-understanding and deep questioning. The self may be experienced as a multiplicity of voices such as described in the Internal Family Systems model (Schwartz, 1997).

It is understood that subject/object distinctiveness is not absolute, and the idea of the participant-observer is understood as the subject/object boundary become permeable. Whilst this stage maintains a capacity for awareness of past and future, the 4/5 self - system is more interested in the present moment fed by interest in such things as eastern wisdom traditions, self-help books, and therapies emphasizing the present moment. There is a heightened differentiation of self from the group membership and a willingness to pursue personal counterculture life goals if need be. The ability to see the relativity of truth leads to a deep pluralistic sensitivity towards those perspectives marginalized by mainstream society, with a greater recognition and celebration of individual and cultural diversity.

Stage 5 Integrated-Multiperspectival: 5% US adult population (Cook-Greuter, 2007). This is the level of development that Kegan (1994) calls the "honors track" of the cultural curriculum, and the level that Wilber increasingly emphasized in his writing on Integral Theory. The self-system at this level has metasystemic cognitive capacity (cognitive stage 6) and is able to apply those cognitions onto the self-system. Whilst Stage 4 self-systems can struggle with the cacophony of self-parts, the stage 5 self-system is able to integrate the self into a whole system integrating mind and body, reason and emotion, intuition and rationality. Preoccupation orientates towards personal development and the actualization of potential. Distressing emotions are more tolerated and paradoxical elements can be integrated into a system of logic. This frees up more energy, as the self is no longer defending itself against disavowed psychological material. One's life work is motivated by becoming all one can be, and, for persons in this stage, wanting to help others grow is one of their strongest motivations. Stage 5 self-systems are

attracted to work as psychologists, coaches, consultant, and executive leadership positions. Integrated-multiperspectival selves can see life as an open-ended journey with no predetermined end, giving the full responsibility to each individual for his or her fulfillment.

Stage 5/6 Ego Aware- Paradoxical <2% of US adult population (Cook-Greuter, 2007). At the 5/6 self-system stage the ego is able to reflect upon cross-paradigmatic cognitions regarding the self. The ego takes the same sophisticated cross-paradigmatic cognition that Commons describes above as developing fields such as evolutionary developmental psychology, and applies that cognition to analyzing the nature of the self. The ego thus becomes transparent to itself and aware of its existence beyond cultural conditioning and existing in a time frame of global-historical perspective. At this stage, individuals tend to be hyperaware of the predicament of using language to capture a universe in flux, and of how its use binds them to a specific worldview.

This self-system becomes aware of the conditioned nature of the ego itself and how the filtering of experience conditions everything including gender, culture, race, personal history or level of development. Persons now come to grasp how underneath this conditioning a more basic open fundamental phenomenological ground of being exists. They are able to witness, without distress, the paradox between the personality and the ground of being, that one is simultaneously a differentiated unique specific individual and yet also undifferentiated from a seamless unity that includes all beings within a larger intelligent system.

Understanding that the self-identity is just a construction, these individuals are less invested in maintaining a stable self-identity and are open to the non-egoic process of

the psyche, willing to trust their own intuitive guidance and the synchronistic acausal signs in the world around them.

Stage 6 Absorptive-Witnessing <1% of US adult population (Cook-Greuter, 2007). In the 6th self-system stage cognition is unitive (Koplowitz, 1984) with a capacity for multiple perspectives. Time and space, the necessary elements, are each understood as constructs, and all events across space and time are thus causally related. Variables do not exist separately in reality and are unified. Boundaries are constructed in an attempt to make meaning, but in reality all boundaries are unbounded and open. The identity of the rare individuals who attain this level of cognitive development is with a witnessing cognition, and even the self-system is recognized as a human construct creating boundaries where at root there is just phenomenological openness. At this stage there is a deep experiential truth of the interconnectedness and non-separateness, giving the self a natural tolerance, compassion, and an affinity with all beings. This leads to an expanded moral concern that embraces all sentient being across all times.

Cook-Greuter (2013) who pioneered this research was clear that the unitive stage was a category that contained all the stages of human ego transcendence, and that whilst there was significant evidence that there were further stages, how many, depending upon the tradition, would require further study. Different methods would be needed to give a clearer differentiation and insight into the nature of this unitive understanding.

O'Fallon and the StAGES Model.

Terry O'Fallon's model is informed by a lifetime of work across the education and human development industries including 6 years working with Suzanne Cook-Greuter scoring SCTs. O'Fallon's work is deeply informed by the AQAL Integral Theory

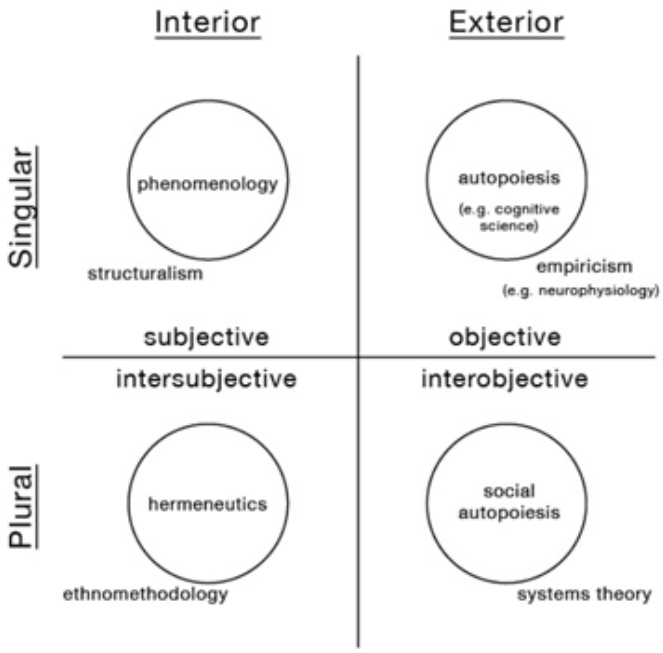
developed by philosopher and psychological theorist, Ken Wilber. O'Fallon recognized that the ego development stages explored by Loevinger and Cook-Greuter could be explained by an underlying stage-by-stage unfolding of the synthetic function of the ego driven by an underlying deep structure of human biology and psychology intrinsic to human growth.

The Loevinger's WUSCT and Cook-Greuter's SCT are both theories empirically driven by data. Their theories were based on recognizing patterns of response across a large number of protocols. As such, the preconceived notions of the researchers were minimized, as they allowed the results to speak for themselves. The scoring protocol of these approaches relies upon comparing sentence stems to examples given of the nine stages from the 300-page scoring-manual. The StAGES model, whilst built on the empirical data-driven discoveries of the Loevinger/Cook-Greuter lineage, departs from its forbearers in that is it theory-driven, describing an invariant 12 stage, 3-tier model of development, driven by a theoretically understood, deep structure within human physiology and psychology.

Wilber's AQAL (All quadrant, All level) is grounded in a four quadrant, eight zone theory of the fundamental ontological categories of human perspectival dimensions (Wilber, 2000, 2007). Developed through an extensive metaparadigmatic (Commons, 2012) multidisciplinary analysis of hundreds of theories of growth, the theory integrates the objects of knowledge and their specific epistemological methodologies across all knowledge domains into two categories of interior/exterior and singular/plural, with an inside/outside in each of the quadrants making 8 zones (Murray, 2017).

Figure 3

Wilber's Four Quadrants and 8 Zones (interior/exterior, singular/plural (individual/collective), inside/outside (p.37) from Wilber, K. (2007a).



The StAGES model proposes that the developmental levels of Loevinger and Cook-Greuter can be expanded through using three fundamentals constructs from the AQAL model: individual/collective, exterior/interior, inside/outside, and an additional construct of 'tier' (Murray, 2017).

1. Individuals/collectives: Generally speaking, awareness of individual things and entities is an easier cognition than collective, groups, and systems, since the latter depend upon the former for their meaning. For instance, to have an awareness of complex family dynamics one must first have an understanding of individual psychology.

2. Exterior/Interior: Exterior activity is understood prior to interior. The understanding here is that one first applies a specific kind of cognition to the external environment before applying to oneself. Mark Forman (p.80, 2010) explains: "All the stages of identity development, therefore rely on different forms of outer-directed cognition eventually being used in the inner world of the self" Thus, an adolescent first applies formal operations to analyze and solve external challenges before applying formal operational thinking to the self. In doing so this transforms the organization of the self. Relating to one's self as if it is a single concrete entity is a very different psychology activity than relating to the self as a multi-process, multi-modal self with a multitude of perspectives.

3. Passive (Inside 1st person), Active (Outside 3rd person): When one first learns something one begins by just being aware of it. One is receptive to its expression as one learns about it, it happens to you. With learning and practice there is the active repeated attempt to recreate the experience. Through repetition the state becomes more easily accessible.

4. Tiers: O'Fallon (2012) conceptualizes three tiers of development with each tier containing four stages of maturation. The first level, concrete, refers to a concrete level of cognitive development where the mind and senses apprehend concrete individual objects both within the exterior world and later the interior. This level of development is the realm of Piaget's concrete operational thinking. The second tier, subtle, refers to a tier of formal operational development that apprehends subtle objects. At first, individuals at this level of development are able to have cognitions about external abstract theories and systems, and then they direct the cognitions internally as psychological introspection into

thoughts, values, perspectives, and projections. At the next tier, the metaware tier, individuals have developed the capacity to differentiate awareness from the contents of awareness and are able to be aware of awareness itself. This process, known as reperceiving (Shapiro & Carlson, 2009) decentering (Safran & Segal, 1990) cognitive defusion (Hayes 2011), deautomatization (Deikman, 1982), detachment (Bohart, 1983), allows a shift from making what was subject an object, and is the believed to be the central driver of life-long psychological growth (Kegan, 1982). As such, at this tier of development, the individual is able to recognize in the moment the conditioning influences on perception, such as projection, the limitations of conceptual cognition and language, and the psychological constructions of time/space. This tier of functioning is the maturing realm of unitive operations as theorized by Koplowitz (1984) that matures into the non-dual phenomenological recognition that time and space are mental constructions and awareness permeates the entirety of experience; that all passing sounds, sights, tastes, smells cognition, and space itself are expressions of awareness.

The StAGES model is composed of three dual cognitive orientations: Individual/Collective, Passive/Active, Exterior/Interior, that move through three tiers of concrete, subtle and metaware experience in a nested order of unfoldment. The theory suggests that human psychology unfolds through a 4-part process through each tier: passive-individual/ (Receptive), active-individual (Active), passive-collective (Reciprocal), active-collective (Interpenetrative).

> These might be referred to as the "four complexity" levels within each tier. That is, the passive/collective involves an understanding of reciprocal relationships (how objects inter-relate with or co-define others), and then the active-collective

involves an even deeper interpenetrative understanding of how whole systems of objects are intermeshed. Murray (2017, p.17)

Table 2

12 levels of the StAGES model

Level	Name	Tier	Individual/Collective	Passive/Active	Complexity
1.0	Impulsive	Concrete	Individual	Passive	Receptive
1.5	Egocentric	Concrete	Individual	Active	Active
2.0	Rule orientated	Concrete	Collective	Passive	Reciprocal
2.5	Conformist	Concrete	Collective	Active	Interpenetrative
3.0	Expert	Subtle	Individual	Passive	Receptive
3.5	Achiever	Subtle	Individual	Active	Active
4.0	Pluralist	Subtle	Collective	Passive	Reciprocal
4.5	Strategist	Subtle	Collective	Active	Interpenetrative
5.0	Construct Aware	Metaware	Individual	Passive	Receptive
5.5	Transpersonal	Metaware	Individual	Active	Active
6.0	Universal	Metaware	Collective	Passive	Reciprocal
6.5	Illumined	Metaware	Collective	Active	Interpenetrative

The levels of the StAGES model include the prior levels articulated in the Loevinger/Cooke-Greuter tradition and bring a great degree of theoretical articulation to the underlying dynamics that drive perspectival growth.

In relationship to the exploration of contemplative psychology it would be useful to explain the four stages of the Metaware tier, the aspect of the StAGES model that most pertains to Buddhist psychology. Terri O'Fallon (2013b) describes that in the metaware tier the mind can begin to perceive both the fullness of objects and the emptiness of

awareness itself. The process through the metaware tier is the process of eventually reconciling awareness and its object in a non-dual recognition.

> Each of the four stages of stabilized metawareness have a different focus of awareness but all have a sense of awareness with a 'fullness' and 'emptiness' of the objects that arise in awareness as the silent eternal, infinite field of the Witness. As one moves through these four stages, the emptiness-fullness poles and the Witness-Kosmos poles gently collapse into each other. O'Fallon. (2013b, p.6)

The descriptions below of the following Metaware Tier are a synthesis of descriptors used by O'Fallon (2010a, 2010b, 2010c, 2012, 2013a, 2013b).

5.0 Construct-Aware: Metaware, Individual, Passive, Receptive (1% population). As the self moves into the metaware tier the person develops the capacity to discern the nuances of awareness itself. At the initial recognition of the 5.0 the direction of the attention is external and the witnessing ego arises with more focus on the objects arising in awareness. These individuals have the capacity to take perspective on perspectives so much so that they begin to see what is tantamount to a hall of mirrors. They are able to take perspectives on perspectives at will. Some experience this as a capacity to envision multiple meaning loops; others become aware of their feelings looping (feeling a feeling about a feeling, or feeling a feeling). With a witnessing awareness activated the person becomes aware of projections arising in the moment. The subtle ego is recognized and conceptions that were once concrete are now recognized as constructs generated by the subtle mind and are experienced as empty and impermanent. This gives rises to the

experience of groundlessness; that there is no concreteness in reality is a realization that can bring about an acute existential angst in some.

The cognitive capacity to be aware in the moment of multiple generations of stories and constructions arises, and with it the ability to experience the self, as a multi-generational impermanent process. Awareness of space increases to include the larger Cosmos. As the 5.0 individual matures his or her perspective shifts from external cognition to internal and the focus is more on awareness of awareness itself, which brings a lucid emptiness to every object that arises within it. In the awe of such a larger vision a concern about hubris and spiritual arrogance needs to be transformed by a genuine humility.

Behavioral cues of 5.0 include a difficulty in speaking coherently due to the constant witnessing of the observing awareness over the perceived limited communicative capacity of the self-system. Since there are not many individuals operating at this level of development they can feel isolated and question their own sanity.

As development proceeds at this stage, emptiness and silence of awareness moves towards undergirding the entirety of ordinary experience as individuals at this level of meta-cognitive development begin to settle into their new identity as awareness, the witnessing awareness of full and empty, concrete and subtle objects.

5.5 Transpersonal: Metaware, Individual, Active, Active (0.5% population). As the capacity for witnessing awareness developed at 5.0 becomes familiar, constant, and ordinary, with awareness of awareness being brought into complex interactions and understandings of the world, the self-system discovers a greater sense of freedom. There

is a continued development of one's own awareness of awareness of objects but this capacity is still polarized with awareness of the objects themselves. So that the 5.5 system may switch into a mode of immanent integration of body and mind, heart and head, inner and outer, or conversely operate from a decentered transpersonal perspective of an observing ego. However, they are not yet able to carry out both operations simultaneously.

At 5.5 the self-system begins to recognize that certain conceptual constructs and narratives are more useful that others depending on the circumstances and the effect these operations have on others and the specific situations involved. In activity individuals at this level have the capacity and mental pliancy to synthesize multiple perspectives. These conceptions themselves might not be unique, but the complexity is multi-dimensional which often leaves 5.5 feeling unseen, misunderstood, and often lonely.

Often persons with a 5.5 self-system do not take feedback well if they sense that the other does not understanding the complexity that they are basing their perceptions on. The 5.5 can be recognized by their fluent complex, vivid, and playful language style displaying a remarkable and yet ephemeral intelligence. They have a capacity to hold virtually anyone with a depth of compassion and concern, and an ability to speak often with a "stream of consciousness" quality. They can come across as arrogant in that they are sure of their choices, often willing to yield and yet surprisingly rigid in their personal perspective. At 5.5 the self-system is able to recognize the metaware capacities of others, but not yet cognizant that others might also be able to perceive their metacognitive capacities in return.

6.0 Universal: Metaware, Collective, Passive, Reciprocal (0.05% population). At the Universal 6.0 stage the metaware collective is in the foreground of experience. This collective contains the entire manifestation of concrete, subtle, and metaware objects. The 6.0 self-system exhibits the ability to let go of the 5.5 complexities even whilst functioning within it, and has the capacity to integrate both poles of immanence and transcendence, form and emptiness into an integrated both/and perspective, able to recognize the recognition of awareness whilst involved in day-to-day activities. Their mode of operation has a deep acceptance of life without the compulsive need to change self or others.

At this stage a new sense of the collective arises, a sense of the formless 'we' arising within the field of awareness. This is a non-hierarchal stage where everything arises together simultaneously within awareness. The experience of time and space becomes infinite, with occasional spontaneous eruptions of "all at once" knowingness, non-duality without a center of psychological operations, and without casual operations of knowing. There is a general experience of universal interconnection and inter-being integrated into the everydayness of life. What may have once been a state experience of universality has become an ordinary experience of operation and there arises a direct understanding of the evolutionary process of the Whole. With the experience of "everything perfect as it is" the 6.0 self-system no longer has the pressured complexity often common at 5.5 and language can become more poetic, unique and vivid to communicate the paradox of simultaneous time/timelessness and specificity/infinity.

6.5 Illumined: Metaware, Collective, Active, Interpenetrative. In the polarity of active/passive development the Illumined stage is the active fruition of the metaware tier

as such there is a greater degree of integrating active functioning into the non-duality of immanent form and empty transcendence. Non-dual states continue to increase as the inherent natural dynamism of growth continues with the projection of one's metaware interior knowingness and exterior unboundedness into the world and the introjection of the world into oneself, the precursor of the non-dual tier.

In turn, recognition of deep patterns akin to those experienced at the 5.5 stage reappear. The self-system looks forward and backward throughout all developmental history and across the various fields of knowledge in consciousness, science, culture, and social systems within the larger expanse of all space and time. The Illumined is able to spontaneously recognize the deep patterning of humanity. The patterns differ from those at 5.5 in that whilst simple they are holographic and simultaneously include the whole. Illuminatives are likely to experience this process as a flow of information that comes through them, that they are simple transducers of information.

O'Fallon notes that all the stages through 6.5 operate under the function of the categorizing, distinction making, and perspective taking mind. A signal of moving into a hypothesized 4th Non-dual tier is the recognition of this perspective-making mind by a centerless nondual awareness (O'Fallon, 2013).

The validity of the Stages model. As of 2018 the StAGES model is still in its infancy, but because of its relevance in covering the terrain relevant to meaning making in contemplative psychology it has been chosen to support this theoretical study. The validity of the StAGES model has been initially demonstrated in an empirical study. This study took over 1,000 previous scored protocols gathered from three databases representing all levels of the Loevinger, Cooke-Greuter (L-CG), and O'Fallon models

and selected 150 random samples of inventories (O'Fallon, 2013). The statistical analysis indicated that the StAGES method of scoring replicated the prior L-CG methods with the replicability of StAGES scoring for parallel level of development (up to 4.5) to be .83 in the "excellent range." This supported the hypothesis that the theoretical model underlying the scoring system can be used to build accurate models of ego development. Since there is a paucity of research on the higher levels of development a replicability study was difficult. However, an inter-rater-reliability study indicated that for the higher metaware developmental levels (5.0-6.5) reliability of the four certified scorers had a Cohen Kappa score in the "substantial" range confirming the internal validity of the StAGES scoring system (O'Fallon, 2016). Additional details on the background, method and statistical analysis that argue for the validity of the model and scoring system are described in O'Fallon (forth coming).

In this chapter an overview has been presented of the territory of adult development and particularly the lineage of constructive developmentalism initiated by Jane Loevinger, continued by Susanne Cook-Greuter, and more recently articulated by Terri O'Fallon. Through investigating adult development these researchers have uncovered stages of mature adult development, and the underlying developmental processes very similar to the stages of contemplative development as articulated by the Indo-Tibetan essence tradition. While there are clearly some differences, what is of particular interest is that the Western research indicates these stages of cognitive and meta-cognitive unfoldment are perhaps not just constructed by the meditative process but are indicative of a more universal transcultural and human process. The developmental process is catalyzed by meditative development but there are other factors that support

such growth such as cognitive complexity, relational intelligence and differentiation from childhood psychological structures.

Chapter Five

METACOGNITION

Metacognition is an important construct and field of study for this investigation into mapping the contemplative essence psychology of Indo-Tibetan Buddhism in terms of mature adult cognitive and ego development. Metacognition includes both conceptual, reflective perspective-taking necessary for constructing knowledge of self and other, and direct non-conceptual processes involving awareness necessary for deconstructive knowledge of psychological functioning essential to contemplative development. The chapter will discuss the main models of metacognition, examine the role of metacognition in the different fields of psychology, and explore metacognition as it is viewed in the field of mindfulness and meditation.

Simply put, metacognition is *cognition about cognition* (Flavell 1979). This has often been simplified in the literature as 'thinking about thinking." However, metacognition does not have to rely upon thought, and can be non-conceptual in the form of *metacognitive insight* (Teasdale et al., 2002). As such, the word *cognition*, "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses" (Oxford, 2007), is more appropriate than the word *thought.* This is particularly important in the more advanced forms of metacognition that rely upon metacognitive awareness and not just metacognitive thinking. For instance, the metacognitive tracking of one's basis of operation, the psychological location of identity,

is non-conceptual and does not involve the use of thought, but rather an intention of awareness to maintain recognition of where information is being processed. There are a number of domains of psychological research in which metacognition is fundamental, for instance cognitive psychology (metamemory), neuropsychology (executive functioning) educational psychology (self-regulated learning), developmental psychology (theory of mind), clinical psychology (mentalization/metacognition).

Historically, "metacognition is not only a monster of obscure parentage, but a many-headed monster at that" (Brown, 1987, p. 105). Writings on metacognition in Western civilization date as far back as the De Anima and Parva Naturalia by the Greek philosopher Aristotle (Colman, 2015). In America, metacognition or *introspection* as it was known, was first popularized in the writings of William James (1890) as his fundamental method of psychological inquiry. But it was primarily, nearly 100 years later in the 1970's, that the work of the American developmental psychologist John Flavell led metacognition to its current prominence in psychological theory.

Fundamentals of Metacognition

Reflection. The foundation of metacognition is the mental capacity for reflection, and particularly the self-regulation aspect of reflection (Brown, 1987). Such reflective thinking relies upon several essential elements of reasoning: the process of formalization; retrospective thinking guided by logic, purpose, inference and reason; and *axiomatisation*, the reflective logical distillation of axioms (Tarricone, 2011). Flavell (1977) considered abstract, reasoned, formal cognitive operations to be fundamental to second order cognitions of metacognition. Basic metacognitive operations are secondary in that they are knowledge and awareness of cognitive processes and the monitoring and

controlling of such processes. More advanced metacognition, such as the monitoring of the psychological basis of operation mentioned above, or the metacognitive insight into the constructed nature of sensory and psychological information, can be considered post-formal dialectical third order cognitive operations, where different perspectives on metacognition can be taken. For example, O'Fallon (2010a, 2010b, 2010c, 2012, 2013a, 2013b) gives the example of the metacognitive capacity at 5.0 Construct Aware to be metacognizant of the activity of psychological projection in real time, or at 6.0 Universal stage to be metacognizant of the deeper constructions of time and space as projections of mind.

The Soviet psychologist, Lev Vygotsky (1978) also considered reflection fundamental to learning. Vygotsky explained the importance of verbalization during social cognitive interaction as stimulating inner speech, the internal verbalization of cognitive processes essential to metacognition. The neglect of these social cognitive interactions is what necessitates the metacognitive approaches to attachment therapy that will be discussed late in this chapter. In this model of cognitive development learning moves from interpsychic to intrapsychic, from a social process to a psychological one in which the development of inner speech then supports the further awareness, knowledge, monitoring, and control of cognition.

Critical Thinking. Critical thinking, which Flavell included in his concept of metacognition, supports the ability "to make wise and thoughtful life decisions" (Flavell, 1979, p. 91). According to the Richard Paul, an international authority on critical thinking, it is the ability to identify and formulate important questions, gather and assess information, test proposed conclusions against relevant criteria, thinking within

alternative systems of thought, and communicating effectively (Paul, 2008). It includes the ability to effectively mobilize the elements of thought (purposiveness, questioning, perspective taking, outcome analysis, bias bracketing, concept building, interpretation, and information gathering), and to monitor the standards of thought (clarity, accuracy, relevance, precision, significance, completeness, fairness, and depth) (Paul & Elder, 2008).

Critical-Reflection. The capacity for critical thought can be applied to critical reflection, which is essential to metacognition. Critical reflection involves critical self-knowledge and understanding of how one's beliefs, feelings, knowledge and strategies affect current actions, and influence changes in future actions. An individual's critical reflection, refined by critical thinking, interacts with self-knowledge to develop critical self-knowledge, the heart of metacognition (Tarricone, 2011).

Metacognitive Theorists

Tarricone (2011) identifies the main theorists in the field of metacognition theory as Brown, Borkowski and Pressley, Kuhn, and Flavell.

Brown's (1975) model developed from her work in the field of reading where she coined the term *metacomprehension*. Her theory is based on three fundamental constructs: knowing, knowing how to know, and knowing about knowing. *Knowing* refers to basic cognition, *knowing how to know* refers to a variety of conscious mnemonic strategies and control processes used to meet task requirements, and *knowing about knowing* refers to introspective knowledge of process in the knowledge system, the awareness and knowledge of memory, apprehension, storage, and retrieval.

The main features of Borkowski and Pressley's Good Information Processing model are specific strategy knowledge (the knowledge of task demands on strategy selection and application), general strategy knowledge (awareness of general strategy processes and the value of strategy), the self–system (influence of beliefs, self-efficacy, motivation, self-regulation and self-esteem), and metacognitive acquisition procedures (processes incorporating executive and self-regulation processes necessary for strategy evaluation and generalization) (Borkowski, et.al., 2000).

Kuhn's metacognitive theory is based on metaknowing, cognition that has cognition (either one's own or others') as its object (Kuhn, 2000). Meta-knowing is subdivided into metacognitive knowing, the declarative knowledge about objects of knowledge, including beliefs about knowledge, and metastrategic knowing, the procedural knowledge of cognitive processes such as strategy selection application and effectiveness.

Flavell (1979), who was influenced by the research of Piaget, described in his writings on cognitive-development a model of cognitive monitoring that occurred through the actions and interactions of three mental phenomena: metacognitive knowledge, metacognitive experience, and metacognitive skill. Flavell's work on metacognition has been foundational in the field of psychology and has been the main theory used to drive metacognitive research in a variety of psychological subfields, such as developmental, cognitive, educational psychology (Efklides, 2008), and mindfulness meditation (Jankowski, et. al., 2014).

Flavell

Flavell's work on metacognition developed from his work with Wellman on metamemory (1975). Memory is fundamental to all areas of learning and without memory there is no possibility for psychological growth. Metamemory is "knowledge about memory process and contents," (Schneider & Lockl, 2002, p. 118),

the introspective knowledge of one's own memory capabilities, the strategies that can aid memory, and the processes involved in memory self-monitoring (Pannu, & Kaszniak, 2005). It is the cognitive process of thinking about memory and memory monitoring. It includes: a) declarative metamemory, the factual, explicit knowledge of memory; b) procedural metamemory, the knowledge of appropriateness, benefit, application, and execution of strategies for memory tasks; and c) knowledge of memory, the understanding of personal memory attributes affected by memory self-efficacy, mnemonic self-concept, and beliefs about memory ability and self-concept (Tarricone, 2011).

Flavell's metacognition, the cognition of cognition, serves two functions, the monitoring and the control of cognition. As mentioned above it has three fundamental components, metacognitive knowledge, metacognitive experience, and metacognitive skills.

Metacognitive knowledge. Metacognitive knowledge consists of 1st, 2nd and 3rd person declarative objective conceptual knowledge. It is stored in memory and comprises models of cognitive processes (language, memory, attention, ego development, perspective taking, basis of operations), and how well those cognitive processes are used by self and others. The knowledge also includes the understanding of task, strategies, and goals.

The knowledge of tasks includes the information on the task itself (information), the demands of the task (demands), and the ability to align the demands of the particular task with the necessary strategies (sensitivity). Strategy knowledge consists of knowledge of strategy attributes, their applicability, and effectiveness in meeting the task demands. Goal knowledge pertains to the knowledge of the kinds of goals specific to the task (Flavell, 1979), (Efklides, 2008) (Tarricone, 2011).

For instance, using the example of developing attentional capacity through concentration meditation, metacognitive knowledge here would include one's cognitive model of attention and an understanding of the stage of attentional development at which one is functioning. The task of learning attentional development comprises task information, task demands, and task sensitivity, the basic information on attentional development, one's understanding of the demands of the process of attentional development, and the sensitivity of aligning the particular demands of the stage in which one is engaged with the appropriate strategy. The task demands comprise the knowledge of the complexity of developing attentional capacity, the understanding of the various elements and variables influencing the task, and how to manage the task characteristics and awareness of progress, and its success or failure. The strategic knowledge of attentional development would be the knowledge of how to develop a practice, the choice of time/space, motivation, posture, choice of meditation object, the intensification and easing up of attentional interest, the increase of metacognitive clarity and the applicability of these attributes in effectively meeting the task demands of each specific stage of attentional development.

Metacognitive knowledge is not directly needed in the ongoing monitoring of cognitive experience and as such it is offline information that is accessed through cognitive reflection and then used to interpret metacognitive experience, and inform the development of metacognitive skills. In the case above, the knowledge of attentional development through meditation is used to interpret the meditative experiences of the practitioner and others, and is used to refine the development of attentional skills.

Metacognitive experiences. Metacognitive experiences are direct conscious cognitive and affective states involving awareness, thoughts, intuitions, perceptions, feelings, and judgments experienced in engaging in a task and processing the related information. Metacognitive experiences are consciously appreciative or responsive to the perceptual, affective, or cognitive experience (Tarricone, 2011). They are the subjective internal response of metacognitive knowledge, goals, or strategies to the task. Metacognitive experiences provide the internal feedback mechanism about the current progress, degree of comprehension, and future expectation of success or failure associated with a given task (Flavell 1979). According to Flavell these experiences can be a stream of conscious experience with information recalled from metacognitive knowledge to be used as a resource in the present moment to solve the current cognitive problem:

> They are the interface between the person and the task, the awareness the person has of task features, of the fluency of cognitive processing, of the progress towards the goal set, of the effort exerted on cognitive processing, and of the outcome of processing. They take the form of metacognitive feelings,

metacognitive judgments/estimates, and online task specific knowledge. (Efklides, 2008, p. 279)

Metacognitive feelings are non-reflective, metacognitive judgments that can be both non-reflective and reflective, and online task-specific forms of knowledge can be both non-reflective and conceptual in nature.

Affective metacognitive experiences are an important feedback loop in the learning process and important for problem solving and self-regulation of effort (Efkildes, 2002). Such feelings include the feeling of knowing something, feeling of familiarity, feeling of confidence, feeling of difficulty, feeling of knowledge saturation, feeling of boredom, and feeling of satisfaction. The evidence that there is an affective nature of metacognitive experiences has been supported by neuropsychological research showing the location of metacognitive monitoring in the anterior cingulate cortex (Fernandez-Duque et al., 2000). The anterior cingulate cortex is connected to both affective and cognitive regulatory loops. Two affective loops have been suggested involving this cortex. The first detects the discrepancy from the goal set and generates negate affect in response to discrepancy, and the second monitors the rate of discrepancy reduction as one progresses towards the goal and can generate both negative and positive affect in response to the progress towards task completion (Efklides, 2006).

According to Lai (2001), several researchers have emphasized how motivation is an integral component of metacognitive experience, providing the capacity for the enjoyment of learning, curiosity, persistence in the face of challenge, and management of affective states (Crothes & Paris, 1988; Eisenberg, 2010; Martinez, 2006; Paris & Winograd (1990); Schraw et al., 2006). According to Schraw (2006) metacognitive

motivation has two subcomponents: self-efficacy and epistemology. Self-efficacy relates to the confidence level a learner brings to accomplish a specific task or goal, and epistemological beliefs relate to the beliefs a learner has about the origin, nature, and epistemological paradigm of knowledge (absolutist, scientific, relativistic, etc.) (Schraw, et. al., 2006).

Metacognitive skills. Metacognitive Skills are the procedural knowledge designed to monitor cognitive progress through the use of strategic metacognitive regulation, or executive control (Brown, 1987). The skills include orientation, planning, regulation, monitoring, and evaluation strategies. These strategies are used to control cognitive activity in order to achieve a specific cognitive goal. Metacognitive skills allow a learner to oversee the learning process by planning, regulating, monitoring and evaluating cognitive outcomes with internal or external standards.

State vs. Trait Metacognition

As in all learning processes from learning to ride a bike to playing music, reading, or doing mathematics, the state repetition of specific conscious activities leads the brain through a neuroplastic adaptation that builds trait capacities (Sagi, et.al. 2012). This would also be true of metacognition. Previous repetitive use of metacognition can lead to a non-conscious automatic monitoring and response to incoming information. This automated self-regulation is interrupted when the discrepancy cannot be addressed by implicit regulation. It is at this moment that the information product of the monitoring process reaches consciousness as metacognitive feelings about the task demand that direct attention be devoted to produce an appropriate top-down explicit metacognitive response (Efklides, 2008).

Metacognition and Psychotherapy

Metacognition is a central part of understanding learning, "the process of making a new or revised interpretation of the meaning of an experience which guides subsequent understanding, appreciation and action" (Mezirow, 1990, p. 1). Clinical psychology, in particular psychotherapy, is an activity that includes making revisions to interpretations of experience, and has been conceptualized by some as a form of learning (Bandura, 1961, Mahoney, 1977, Rose, Loewenthal, & Greenwood, 2005). The understanding of psychotherapy as an educational process goes all the way back to Sigmund Freud, the pioneer of the psychodynamic approach to psychoanalytic treatment, which he justly described as a kind of "after-education" (Freud, 1977, p. 504). Carl Rogers (1969), a pioneer of the humanistic approach to psychology, likewise described psychotherapy as a form of *significant learning*:

> Learning which makes a difference in the individual's behavior, in the course of action he chooses in the future, in his attitudes and in his personality, it is a pervasive learning which is not just an accretion of knowledge, but which interpenetrates with every portion of his existence. (Rogers, 1961, p. 280)

Metacognition is explicitly seen as the central feature of the therapeutic learning process in many schools of psychology and it is also probably implicitly involved in those approaches that do not conceptualize metacognition as fundamental. For instance, metacognition is necessary for the analysis of the transference projection in psychoanalysis, present in the monitoring of emotional activity in emotion-focused therapy, and necessary in the differentiation and recognition of the voices of internal systemic parts in internal family systems therapy. Two good examples of therapeutic

approaches that are explicitly concerned with the development of metacognition are the third wave contextual behavioral therapies, and the psychodynamically informed attachment treatments.

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) is defined by Hofmann, Asmundson and Beck (2013) as a *family of interventions* founded on rational and empirical foundations including, but not limited to, rational emotive behavior therapy, cognitive therapy, stress inoculation therapy, problem-solving therapy, schema therapy, and acceptance and commitment therapy (Dobson, 2009). Meta-analyses of the efficacy of CBT have shown large effect sizes for unipolar depression, generalized anxiety disorder, panic disorder with or without agoraphobia, social phobia, posttraumatic stress disorder, and childhood depressive and anxiety disorders (Butler, Chapman, Forman, & Beck, 2006). With a wide range of approaches to treatment and a multitude of therapeutic interventions, all approaches to CBT share three essential beliefs (Dobson & Dozois, 2010, p.4): first, that cognitive activity affects behavior, second, that this activity may be monitored and altered, and, lastly, that desired behavior change may be affected through cognitive change. The monitoring of cognitive activity in CBT is understood to be metacognition, the aspect of the information processing system that monitors, interprets, evaluates, and regulates the contents and processes of its own organization. (Wells, & Purdon, 1999)

While it is true that metacognitive strategies have always been a part of CBT, metacognitive awareness in these forms of therapy is generally in the service of changing

the contents of the dysfunctional cognitive behavioral patterns to more adaptive patterns (Dobson, 2013). In recent years there has been the development of a *third wave* in CBT, with an explicit shift to more advanced metacognitive or contextual approaches to treatment (Hayes, Villatte, & Hildebrandt, 2011). Metacognitive contextual approaches that focus on the recognition and acceptance of the content of the mind (beliefs, thoughts, emotions, and sensations) rather than changing them have been a central goal and desired outcome of therapy throughout the history of psychology. Acceptance has been implicitly a central feature of many psychotherapeutic approaches, for example Freud's psychoanalysis, Rogerian client-centered treatment (Rogers, 1995), and Gendlin's focusing (Gendlin, 2012). Third wave CBT approaches, such as mindfulness based cognitive therapy (MBCT), and acceptance and commitment therapy (ACT), have, however, made explicit the psychological *acceptance* of experience as the central mechanism of therapeutic transformation.

MBCT is defined as an intervention primarily designed to increase metacognitive awareness by changing the patient's relationship to negative thoughts and feelings without any attempt to change belief in the content of negative thoughts or underlying assumptions (Teasdale Moore, Hayhurst, Pope, Williams & Segal, 2002). Teasdale emphasizes that it is the metacognitive awareness into the unfolding mental content in the direct experience of the present moment and not conceptual metacognitive knowledge that is the therapeutic agent of change, and that it is a deficit of a specific kind of metacognitive monitoring into that leads to depression (Teasdale, 1999).

The developers of ACT do not use the term *metacognition* theoretically. However, metacognitive awareness is a fundamental aspect of ACT. Like MBCT, ACT

focuses on changing the client's relationships to thought through cognitive defusion, "the creation of nonliteral, non-evaluative contexts that diminish the unnecessary regulatory function of cognitive events…. the focus is on mindfully noticing thinking as it occurs" (Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013 p.4). Rather than being dominated by the conceptualizations of the past and future, ACT teaches, like MBCT, the client to come into direct experiential contact with the present moment, and, rather than attempting to alter the form, frequency, or intensity of cognitive experience (experiential avoidance), learn to accept experience (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). This *acceptance*, "an intentional behavior that alters the function of inner experiences from events to be avoided to a focus of interest, curiosity and observation" (Hayes, 2013, p. 199), is clearly a form of metacognitive regulation. ACT goes further than MBCT in articulating that through the repetition of metacognitive disembedding from cognitive fusion and accepting the present moment, there is a shift in psychological operation from *self as content,* which is fusion with a conceptualized narrative of self, to *self as context*, in which one operates psychologically as the observing self (Deikman, 1982), and comes to notice a transcendent sense of self (Hayes, 2013).

The ACT process of metacognitive defusion parallels concepts in psychological literature referred to as reperceiving (Shapiro & Carlson, 2009), decentering (Safran & Segal, 1990), deautomatization (Deikman, 1982), and detachment (Bohart, 1983). Through the repetition of cognitive defusion a shift in perspective develops that leads to an experience of self beyond conceptual construction. This shift in operation happens by making the prior subject of experience (the narrative-content self) an object. It is this process of making *the subject the object* (Kegan, 1982), that drives psychological process

in general, and at an adult level of development helps the client shift out of a narrative construction of self to the experience of identity as awareness or just simple non-conceptual knowing, or pure metacognition. However, therapies such as ACT do not have the means to make self as context a stable trait. This is the goal of Buddhist contemplative psychology.

Attachment Therapy

The physical and psychological attachment of the child to its caregiver is fundamental to the development and stabilization of the capacity for self-regulation, self-recognition, self-monitoring, and the development of a theory of mind. Without first learning about internal regulation by being regulated by the loving presence of a mother or caregiver it is difficult for a person to develop affect regulation, an unfortunate result such as is seen in borderline character injury (Fonagy, 2000). Without first learning about the self through having care-givers direct their interest to realizing the uniqueness of the child, it is difficult for the self to develop capacity for self-reflection, such as is seen in narcissistic character injury (Bennett, 2006). Psychological attachment is fundamental to the development and functioning of a healthy self-structure.

In *Attachment Disturbances in Adults*, Brown (2016), articulates that there have been three generations of metacognitive research related to the field of attachment: the Berkeley School associated with Mary Main and her colleagues, the London psychodynamic school of Peter Fonagy and his colleagues, and the Rome school at the Center of Cognitive Psychotherapy.

Brown (2016) describes how the pioneering work of John Flavell (1979) on the appearance-reality distinction had a powerful influence on Mary Main. Main included a Metacognitive Monitoring scale on the Adult Attachment Interview and in her research discovered that those children with insecure attachment were more cognitively fused with their thoughts, beliefs, and mental models of reality, were less able to take them as mental representations, and were thus prone to distortion (Main, 1991).

In psychodynamic psychology the field of attachment is of particular importance to the understanding of metacognition because it is in the early childhood relationship that, it is believed, the capacity for metacognition develops. Fonagy's psychodynamic approach to understanding metacognition is based on Gergely and Watson's (1996) work on the development of emotional self-awareness and self-control through parental affect mirroring. Similar to Mary Main's conception of metacognition developing in the attachment relationship, for Fonagy metacognitive self-awareness or *mentalization*, is developed in childhood by through interaction with other people's awareness of self (Fonagy, 2016). Children develop the capacity to become aware of the parts of their minds that others are able to understand and respond to (Fonagy & Allison, 2016). The process of mentalizing is an imaginative mental activity, namely perceiving and interpreting human behavior in terms of intentional states (Fonagy et. al 2007, p. 288). It is based on the development of a symbolic representational system for mental states (Fonagy et. al 2007), the reflective function (RF), with the capacity to primarily reflect upon the self, other selves, and how those other selves perceive the self. This function includes four metacognitive dimensions, the cognitive/affective, implicit/explicit,

self/other orientation, and internal/external focused. The integration of these dimensions is referred to as full mentalization (Fonagy et al, 2007 p. 29).

The Rome school of Semerari, Dimaggio, and Liotti and their associates at the Third Center for Cognitive Psychotherapy developed a highly refined modular perspective on metacognition. By separating metacognition into six independent sub-functions: identification, relating variables, differentiation, integration de-centration, and mastery, they were able to differentiate specific deficiencies in borderline, narcissistic, and dissociative disorders (Semerari, 2003). Their Metacognitive Assessment Scale (MAS) allows the therapist to identify and work on developing a patient's specific deficient metacognitive sub-function.

Brown and the Boston school's (2016) integration of metacognitive skills brings together the Berkeley school of metacognitive monitoring associated with the AAI, the London psychodynamic approach of mentalization, and the Rome school of cognitive psychotherapy with a more advanced set of post-formal metacognitive skills. The Boston school divides metacognitive skills into basic, intermediate, and advanced. The basic skills include the development of awareness of mind of self or other, monitoring the accuracy of state of mind, awareness of one's influence on the other's state or behavior (and vice versa), becoming aware of one's state of mind in such a way that it has a regulatory effect on the state, awareness of one's own or another's action plans and goal directedness, and meaning making. The intermediate metacognitive skills to be developed include the recognition of how the past and the projection of the future shapes one's experience, appreciating the relativity of states of mind, seeing into the underlying assumptions and expectancies related to information, optimizing action plans in the face

of accurate awareness of limitations, fostering sensitivity to contextual effects on behavior, and perspective taking, the ability to consider something from another's point of view. The advanced metacognitive skills include taking a wider, super systemic perspective, developing metacognitive awareness of past/present, self/other or child/adult orientations, awareness of the degree of organization or coherence of one's mind, recognition of interdependence, articulation of ultimate concerns, the direct, non-representational awareness of a wider reality, and refined meditative metacognitive skills. Metacognition is the central feature of the psychological therapeutic process in many schools. In the disembedding from identification with dysfunctional experience such as maladaptive thoughts, negative beliefs, reactive emotions, and traumatic sensations, the client is able to develop perspective on their experience that allows for transformation. As Masterpasqua explains, "The three major schools of psychotherapy (psychoanalytic, behavioral and humanistic) now share the purpose of helping individuals to experience and understand that they are more than the content of their thoughts, feelings, or sensations" (2016, p. 9).

Metacognition and Meditation

Metacognition has been used by a number of theorists (Bishop et.al, 2009, Holas and Jankowski 2013, Grossenbacher et.al. 2017, Yates 2017, Dorje 2016) to explain the mechanisms of contemplative practice. This section will discuss those major theorists contributing to the field that support the theory building of mapping the contemplative essence psychology of Indo-Tibetan Buddhism in terms of mature adult cognitive and ego development through understanding the common denominator as metacognition.

Mindfulness

A discussion of meditation and metacognition begins with mindfulness, an increasingly popular construct, intervention, and research topic in psychology. Mindfulness practice is a component of training within the larger system of Buddhist contemplative development. Popularized by Jon Kabat-Zinn through mindfulness based stress reduction (MBSR) and developed to address chronic pain, it has come to play a central role in a number of psychotherapies such as mindfulness based cognitive therapy (MBCT), dialectical behavioral therapy (DBT), acceptance and commitment therapy (ACT), and somatic experiencing.

Kabat-Zinn (2009, p. 4) defined mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally." With the increasing popularity of mindfulness in psychology research, psychotherapy, and the self-help industry there is an increasing need for a more thorough operational construct. A definition developed by Bishop et. al. (2007) can be summarized as follows: mindfulness is the self-regulation of attention on immediate experience, maintained by sustained attention, attentional switching, and the inhibition of secondary elaborative thought processes, that allows for the increased recognition of mental events characterized by a curious, open and accepting orientation towards present experience, leading to insight into the nature of cognitive experience, the adoption of a decentered perspective on subjectivity, and the transience of sensation, emotion and thought. In short, mindfulness is form of metacognition. According to Bishop et al. (2007, p. 233) "The notion of mindfulness as a metacognitive process is implicit in the operational definition that we are proposing since its evocation would require both control of cognitive processes (i.e., attention self-regulation) and monitoring the stream of consciousness."

The Metacognitive Model of Mindfulness

Holas and Jankowski (2013), (see figure 4 below) conceptualize mindfulness as a state of metawareness initiated and sustained by cooperating executive functions and attentional processes. They propose a metacognitive system promoting mindfulness that consists of knowledge of the beliefs, rules, and metacognitive strategies on how to organize, manage and process information, the metacognitive processes involved in monitoring the object of cognition, and the cognizing process itself. Jankowski and Holas (2014) further theorized a metacognitive model of mindfulness explicitly based on Flavell's model as refined by Elfklides (2008). In this model they propose three levels of cognition with the lowest level comprising the basic qualities of cognitive, perceptual, and affective experience, the second more basic attentional self-regulatory metacognition, and the highest meta-meta cognitive level awareness of the flowing experiential contents. The higher levels monitor and control the lower. Jankowski and Holas (2014) suggest that mindfulness refers to the top level of the hierarchal structure of consciousness, which monitors and controls not just basic consciousness but also lower levels of metacognitive executive functioning.

The metacognitive level comprises two tiers, the highest is a meta-meta level that includes the meta-awareness of decentration and experiential acceptance, the metacognitive knowledge that promotes a state of mindfulness (MMK-mindful metaknowledge), and the metacognitive skills informed by MMK and applied by meta-awareness. The metacognitive knowledge at this level comprises the beliefs about the relationship between subject and object, mindfulness goals, and contemplative strategies to be applied in the service of the goal of maintaining the state of mindfulness. The lower

meta-level of metacognition is a regulatory and monitory attentional level comprising the knowledge and strategies needed to regulate attention.

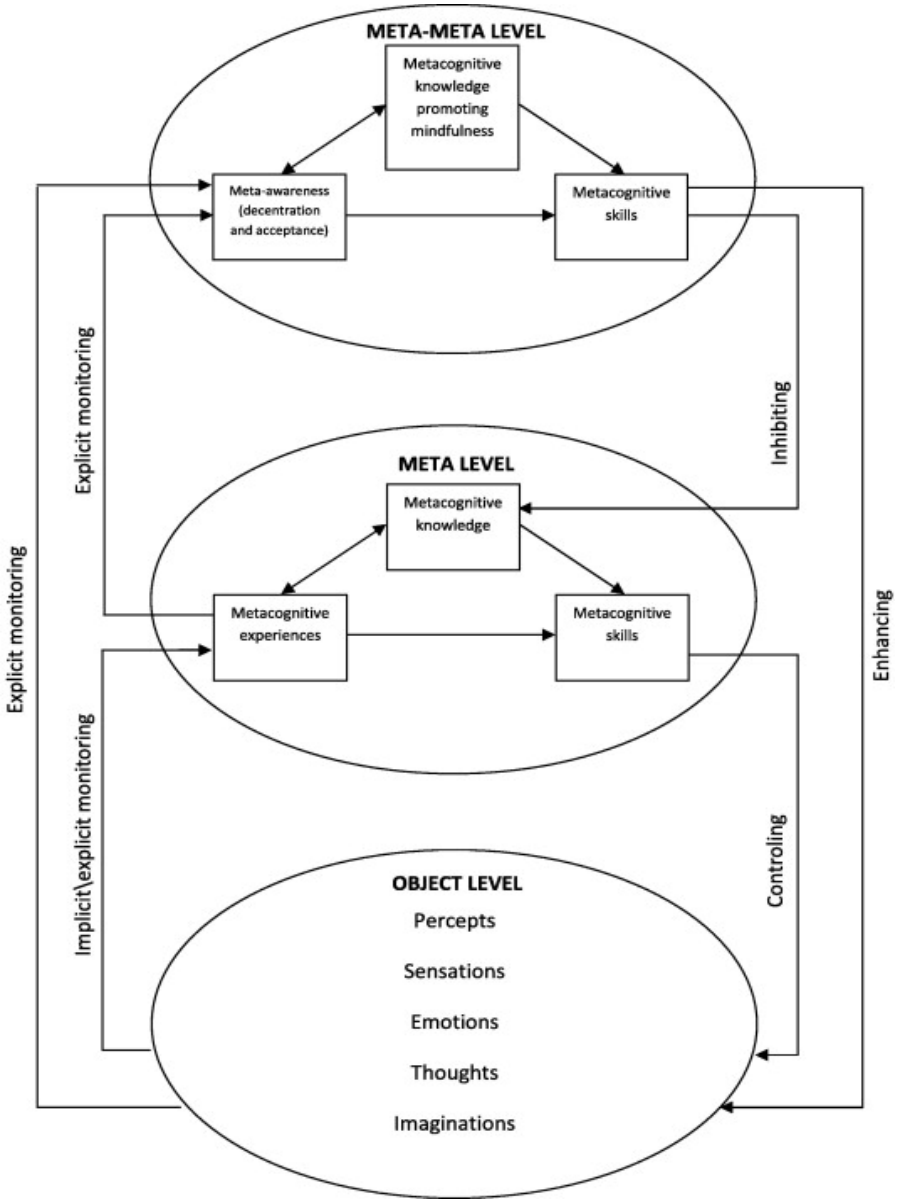


Figure 4. The metacognitive model of mindfulness (p.67) from Jankowski, T., & Holas, P. (2014).

Metacognitive Attention, and Metacognitive Introspective Awareness

Yates (2017), whose work is grounded in Buddhist psychology, supports the model of a two-tiered metacognitive system differentiating metacognitive attention and metacognitive introspective awareness. The metacognitive attention involves the discriminating mind and despite its objective perspective it is integrated into the self-system such that its unconscious operation creates the experience of a witnessing self. Metacognitive introspective awareness on the other hand is awareness of the activity of metacognitive attention, and the moment-by-moment changes in the larger field of peripheral experience.

Jankowski and Holas (2014) hypothesize that there might be the possibility of numerous metacognitive levels with each level being both a meta-level for the previous and an object level for the next one. However, in their model they do not go beyond the discussed three levels. They do suggest that the number of levels is related to working memory capacity and the effectiveness of the central executive functioning. They hypothesize that the practice of mindfulness decreases the temporal dissociations between the meta and object levels of experience. Mindfulness recodes the information from the object level so the dissociative processes of internal verbalization and defense mechanisms, which distract from immediate experience, do not distort it. This process of decreasing temporal dissociation reduces cognitive fusion, "the tendency to buy into the literal meaning of thoughts, feelings and bodily sensations" Herzberg (2013, p.1). This is supported by (Dahl et. al., 2015) research done on how the attentional practices of meditation stabilize the self-regulatory meta-level (Jankowski and Holas, 2011) of the metacognitive attention (Yates, 2017). However, the deconstructive family of meditations at the meta-meta level of metacognition aim to undo the maladaptive patterns caused by

experiential fusion, maladaptive self-schemas and cognitive reification by exploring the dynamics of perception, emotion, and cognition by gaining insight into the internal models of self, other and the world.

Jankowski and Holas (2014) theorize that mindfulness unfolds developmentally as the practice develops, and the hierarchal and interrelated mindfulness metacognitive system (MMK, MMS, and MMA) interrelates, allowing the various components of the system to evolve dynamically. As the content of mindfulness metacognitive knowledge evolves, the quality of the metacognitive experience changes, as does the self-regulatory executive functions. Therefore, there are meditation stages. In the fundamental Buddhist practice of meditation these begin with basic attention to breathing and as the practice develops metacognitive decentralized awareness comes online which in turn leads to the insights suggested in fundamental Buddhist psychology, the insights into impermanence, no-self, and reactivity (dukkha). According to Jankowski and Holas (2014) the person who achieves this higher level of meditation then starts to become aware of clarity (fundamental awareness), the most fundamental and basic form of reflexive non-conceptual cognition that makes all other types of cognition feasible and forms the central feature of consciousness itself (Holas and Jankowski (2013).

The central implication of this metacognitive model for understanding the connection between contemplative psychology and adult ego development is that the structure of metacognition, just like cognition, has a multi-level character, and that just being aware of the present moment does not mean the same thing as being aware with the highest level of metacognition.

Contemplative Cognition

Grossenbacher and Quaglia's model of Contemplative Cognition (2017) postulates a contemplative framework that comprises three fundamental constructs: awareness of transient information (ATI), intended attention (IA), and attention to intention (AI)

Awareness of transient information (ATI) refers to the basic cognitive process of being aware of the transient objects of experience such as sensory information, affect, memory, imagery, and thought. ATI is the central feature of those meditations designed to cultivate moment-by-moment choiceless awareness of the ongoing stream of consciousness such as the choiceless awareness of Zen shikantaza (just sitting) meditation.

Intended attention (IA) is a construct common to many contemplative theories such as Yates's (2017) metacognitive attention. It is the intentional regulation that influences information processing through such attentional processes as: disengaging, shifting, engaging, sustaining, monitoring, and scope modulation of attention (Grossenbacher et. al., 2017). IA is the central feature of those meditations designed to develop attentional stability such as Indo-Tibetan calm/staying practice.

The attention to intention (AI) is a sophisticated metacognitive process in meditation. Grossenbacher and Quaglia (2017, p. 15) define it as the "attentional modulation and/or monitoring of an intention whether through facilitation of a selected

intention, inhibition of competing intentions, sustaining an already operating intention, or reengaging one that has waned." General intentions such as practicing to benefit all beings interact dynamically with more specific intentions such as the regulation of attention, or maintaining a particular metacognitive perspective on experience. AI is the central feature of the Indo-Tibetan bodhicitta practices designed to cultivated strong altruistic motivation to benefit the field of all interconnected beings.

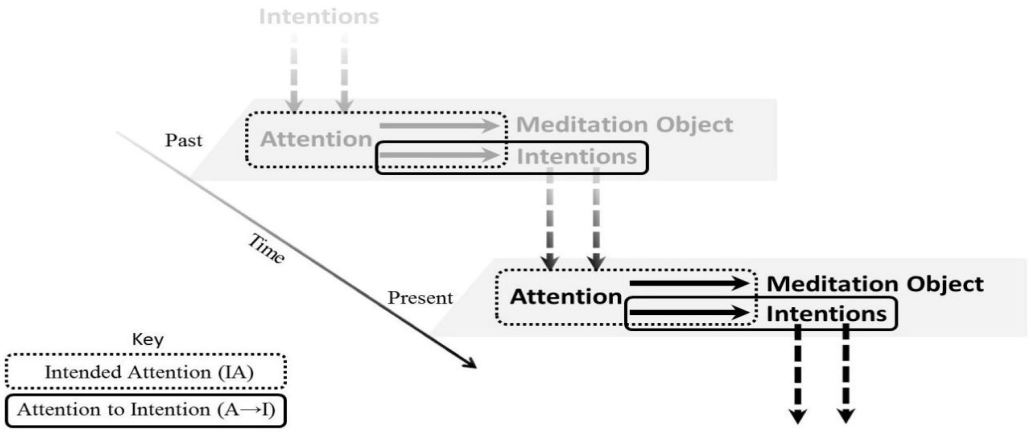


Figure 5. Mutually Engaged Intended Attention and Attention to Intention in Meditation (pg46.) from Grossenbacher, P. G., & Quaglia, J. T. (2017).

In practice, IA, through the previous activation of an intention, increases the probability of a particular attentional processing. While in AI the attention monitors and adapts the processes of intending in the present. With continued practice there develops a mutual engagement between the IA and AI thus enabling mental organization and

coherence through their dynamic influences on each other (Grossenbacher et. al., 2017). The integration of these three metacognitive functions is supported through attending to each, facilitating metacognition about awareness, attention, and intention.

Grossenbacher and Quaglia (2017) are clear that the practice of meditation is not sufficient to cause the development of this metacognitive contemplative cognition. In order for mature contemplative cognition to develop the practitioner needs to consciously understand, activate, and integrate the functions of ATI, IA and AI. As such contemplative development can occur beyond the context of formal meditation practice; for as long as the practitioner is consciously working on the activation and integration of IAT, IA, and AI then contemplative learning continues. This is a perspective shared by the Buddhist essence traditions of mahamudra and rdzogchen where the informal, *pathwalking* practice of integrating meditative awareness into everyday living is fundamental to the understanding of the contemplative path. This model of contemplative cognition gives an important emphasis that the other models above do not, in its emphasis on the metacognitive functioning of intention and on the dynamic interaction of intention with attention and awareness.

Modes of Existential Awareness

Dorje (2016) defines contemplative science as an integrative disciplinary study of the metacognitive self-regulatory capacity (MSRC) of the mind, and the associated modes of existential awareness (MEA). The MSRC is akin to the other metacognitive functions associated above with the self-regulation of thought and somatic emotional responses through adaptive goal directed attentional regulation. The MEA are states and traits of awareness resulting from contemplative training that are characterized by

increasing gradients of de-reification. These are the levels of metacognition hypothesized by Jankowski and Holas (2014). Both MSRC and MEA are modulated by the motivational, intentional factors of contemplative practice, which are linked to the philosophical context of the contemplative practice (Dorje, 2016).

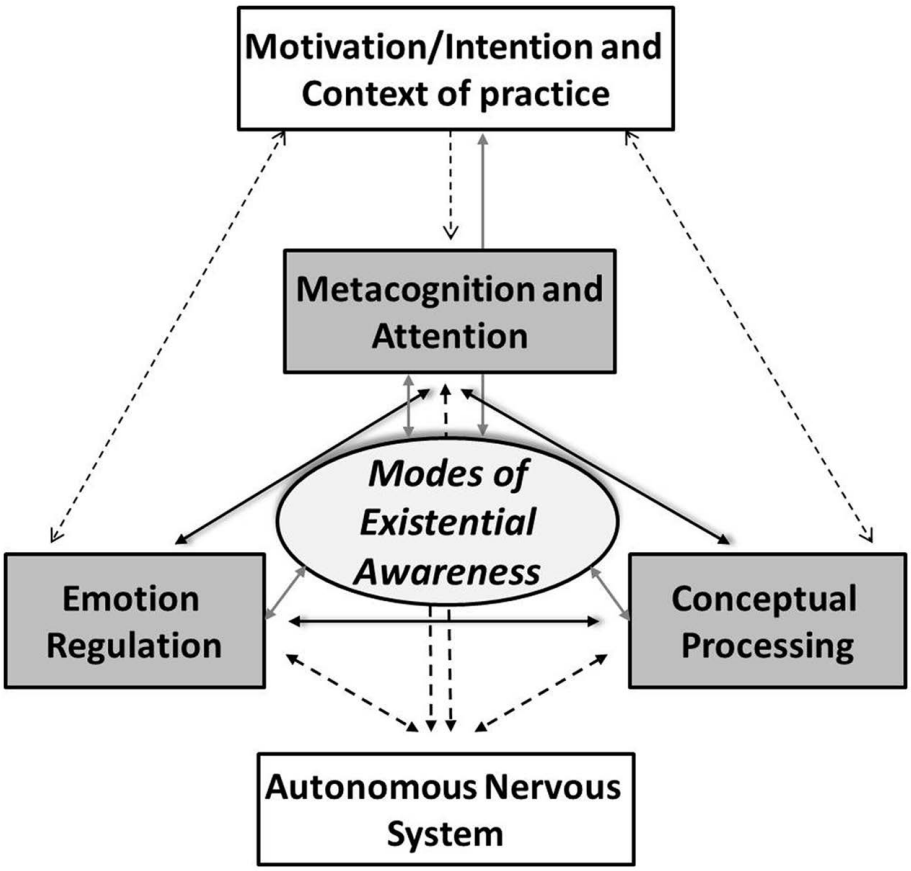


Figure 6. Core systems and processes modified by contemplative training (pg.3) from Dorjee, D. (2016).

One can hypothesize that the modes of existential awareness (MEA) is more explicit in Dorjee's model because, unlike the other researchers, Dorjee's theory is grounded in the Indo-Tibetan practice of rdzogchen which is characterized by emphasize on the recognition of pristine non-dual referenceless awareness, known to be beyond all the lower levels of awareness, or the basis of operations, articulated within the

mahamudra system in chapter three (Dorje, 2013). Dorje sees the MEA as a progression of states characterized by the increasing development of metacognitive self-reflective investigation and awareness into the impermanent nature of mental phenomena that begins with the recognition of impermanent experience, expands into the experiential realization of the emptiness of self, and finally reaches maturity in the non-dual state of pristine awareness. However, Dorje does not articulate the different modes of existential awareness, but only discusses that they exist. Dorje (2016) emphasizes that one of the key future tasks of contemplative science is to provide a clear theory of the MEA progression. As discussed in Chapter Three, the psychology of mahamudra offers a more articulated map of the MEA progression to non-dual pristine awareness than rdzogchen, which assumes the practitioner can just immediately cut through all the levels of obscuration (body/self, thought, time, duality, attention) to the level of awakened awareness.

In summary, metacognition is an important construct and field of study for the investigation into mapping the contemplative essence psychology of Indo-Tibetan Buddhism in terms of mature adult cognitive and ego development. Through the process of complex adult cognition, metacognition facilitates ego development, and, as discussed above, metacognition also facilitates transformation through the stages of insight in contemplative psychology. As a construct and mental function it is engaged in both the constructive processes of structural ego growth and in the Indo-Tibetan tradition, the deconstructive processes of transcending identification through de-reification with those structures, which then allows a transformation in the fundamental identity of an individual whilst maintaining the optimal functioning of the self-structure.

In the next chapter the focus will be on articulating the components of contemplative metacognition, the stages of Indo-Tibetan contemplative practice and their correlations with advanced adult ego development.

Chapter Six

INTEGRATION OF CONTEMPLATIVE ESSENCE PSYCHOLOGY, ADULT DEVELOPMENT AND METACOGNITIVE RESEARCH

This chapter focuses on the mapping of the contemplative essence psychology of mahamudra and dzogchen in terms of mature adult development and is informed by the literature on metacognition. The cumulative contribution of this study shows that contemplative essence psychology is a fully articulated psychology of adult development that provides the theoretical understanding and metacognitive strategies that engage the central drivers of psychological growth and transformation. In the west, a more thorough understanding of the structural stages of development, such as those developed by Freud, Piaget, Fisher, Commons, Loevinger, Cooke-Greuter, O'Fallon etc., has developed over the last 100 years due to the sophisticated maps developed from third person scientific research into the longitudinal growth of human beings through the life span. The maps and practices of the mahamudra and rdzogchen contemplative traditions offer Western psychology a perspective and path of human potential evolution and flourishing previously unexplored in Western psychology, and that is deeply needed in the contemporary world. The chapter also offers a glimpse into an integrative process that will engage many generations of future dharma practitioners and psychologists in the process of reducing human suffering and actualizing potential.

The Relationship between Adult and Contemplative Development

Before the recent advent and popularity of mindfulness practices in the west, the deeper regions of theory and practice of Asian contemplative psychology was known by a relatively small group of psychologists and theorists who struggled to reconcile Eastern

and Western conceptions of development (Alexander et. al. 1990; Washburn, 2000; Dale, 2013; Wilber, 2007/2017; Brown, 1986; Engler, 1984).

Early longitudinal research by Alexander (1982) into Transcendental Meditation (TM) indicated that TM meditation facilitated ego development, as measured by Loevinger's (1976) test of ego development. The TM subjects, who were prison inmates, progressed over a 4-year period from the *conformist* stage, Loevinger's 3rd stage of ego development, to the 4th stage, *self-aware.* In a second one-year longitudinal study those inmates who were already meditating developed to the 5th stage, *conscientious*, which corresponded to a dominance of mature abstract formal operations. However, Alexander's research into meditation, which included prolific efforts, with some 30 publications, only examined TM meditation, and unfortunately, due to the fringe perception of TM in academia, his results were not taken seriously outside the TM community, and no further researchers explored the relationship.

Phenomenology vs. Structuralism

The perspectives of these two methods of mapping psychological experience differ in important ways. Wilber (2006) clarified that the difference in the knowledge realm of the meditative traditions and adult development researchers amounts to a distinction between first-person phenomenology, associated with the contemplative tradition, and third-person structuralism, found in Western forms of inquiry. Indo-Tibetan contemplative psychology is an ancient first person subjective, phenomenological tradition developed through deep introspection and interior research over many generations. Through such contemplative research the lineages have developed practices, maps, and theories to describe this process of internal personal

exploration and transformation. The only way at this time to fully verify the claims of the tradition is to engage in the meditative journey oneself, to carry out the phenomenological metacognitive exercises prescribed and to compare the results to those collated and systematized by the tradition. The field of adult development research compared to contemplative psychology is in its infancy. The work on cognitive structural development by Piaget, Commons, Fisher and others, and the work on constructive ego development by Loevinger, Cooke-Greuter, and O'Fallon are third-person structural disciplines. These maps have developed from the objective scientific structural analysis of studying levels of cognition and ego complexity in large population samples. This research has then led to the development of pedagogical approaches to supporting psychological development and education, but the development of these methods has come from the outside in, not the inside out.

The tradition of contemplative psychology developed and matured in vast monastic universities of India and Tibet, and due to the intellectual rigor and insight of many of the scholar-practitioners, third-person insights and observations were probably made, and then integrated into the behavioral and self-development training of adepts. However, the strength of the contemplative traditions has never been the collation and scientific analysis of observational studies of others, but direct phenomenology.

Structure vs. State

Adult cognitive development and contemplative development are different processes. In his book Integral Spirituality (2007), the philosopher Ken Wilber and Alan Combs proposed a matrix separating the stages of ego/self development from stages of state identity. Along an x-axis they plotted experiential state/trait levels of identity, the

modes of existential awareness, basis of psychological operations (Gross, Subtle, Causal, Nondual), and along the y-axis plotted the levels of self-development (archaic, magic, mythic, rational, pluralistic and integral). Their separating out the development of self-structure from state identity into two inherent different processes helped explain many of the combinations of ego and state experience. For instance, a pastoral nomad in medieval Europe (magic), a Christian fundamentalist in 18th century France (Mythic), and a Wall Street executive (Rational), could be given the same instruction, and in practicing the same way, experience the same state of formless awareness, and perhaps even mature it into a basis of operation or experiential mode. Wilber pointed out that despite sharing the same state/trait experience, the individuals would still interpret their experience through the stage of self-structure and its level of cognitive complexity.

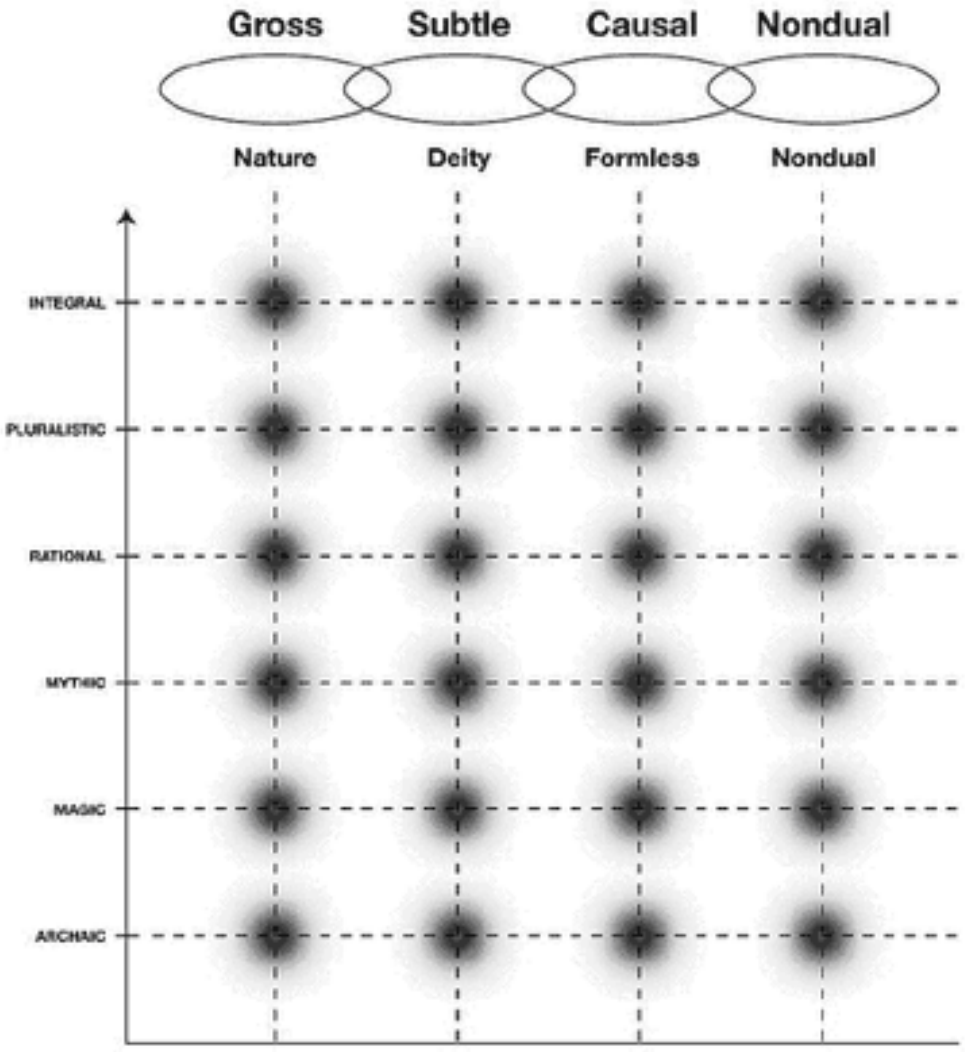


Figure 7. The Wilber-Combs Lattice (p. 90) from Wilber, K. (2006)

Wilber's point was that structural stages of self-development evolve in time. They evolve and adapt in response to psychological, biological, cultural, and systemic forces. As such, if awakening, among other things, means a non-dual integration with everything that necessarily includes the evolving self, culture, and world system. Therefore, if somebody has a non-dual basis of operation and is statically identified and unconsciously stuck at a level of self-structure that would be a form of arrested development: "Enlightenment is the realization of oneness with all states and all stages that have

evolved so far and that are in existence" (Wilber, 2006, p. 95). Wilber does not say that meditation would not facilitate self-development, in fact he later alludes to Alexander's research sharing that meditation can engage structural self-development as well as state-development, "In fact, meditation, can help move you *an average of 2 vertical stages* in four years" (Wilber, 2006, p. 137).

In a number of writings Wilber (2017), O'Fallon, and Diperna (2015) and others have clarified that the process of *waking up* is not necessarily the same as the process of *growing up* (i.e., the process of deconstructive insight into the constructed nature of psychological experience), and does not necessarily lead to new psychological constructions. All these theorists agree that access to, and the stabilization of the higher stages of structural cognitive development are dependent upon the access to, and stabilization of, deepening degrees of metacognitive modes of operations. For example, the metaware tier of development that O'Fallon presents in stages 5.0-6.5 is built upon the recognition of a timeless metacognitive basis of operation, without which the stages would not be able to unfold since there would be no floor upon which to build. However, the access and stabilization of higher metacognition does not require cognition beyond a basic ability to follow simply follow instructions. As such, it is feasible for individuals to realize the fundamental nature of non-dual nature of awareness without much understanding of the process, a criticism often directed towards many contemporary spiritual teachers who are self-realized and yet are unable to build robust pedagogical environments to teach others. In the Indo-Tibetan contemplative tradition this is similar to the concept of a Pratyekabuddha (Wyl. *rang sangs rgyas)*, a *solitary realizer*, or *intermediate Buddha*, who is realized and yet lacks the omniscience of compassionately

motivated structural development to be able to adequate lead others (Rahula, 2000). As such they cannot function as realized teachers as they are unable to communicate and individualize the instruction of the cognitive and metacognitive knowledge and practices of contemplative development.

However, as articulated above, the tradition of Indo-Tibetan psychology itself is not just the practice of meditation, the development of a skill. Meditation in itself is not seen as enough to facilitate the kind of integrated growth necessary for the training of a Buddha. That kind of training needs to happen within a larger context of a liberal arts education with a specific concentration in ethics, contemplative knowledge, and the application and mastery of metacognition in the direct experience of the practitioner. Under such ideal conditions the integrated process of contemplative development has the potential to lead to both deconstructive liberation from all mental constructs and the reconstructive adaptation of the ego structure to respond to suffering in the world around. This is the realization of the technical term, *omniscience,* the fruition of compassionately motivated constructive psychological development and deconstructive liberating wisdom.

The mahamudra and dzogchen stages of practice lead to the maturation of the very subtle and awakened bases of operations through deepening degrees of realization. They are also accompanied by greater phenomenological nuance with respect to this development than does the Western research into adult development since the former in fact articulates the precise and actual means to bring about the transformation. The lineage libraries of the Tibetan monasteries consist of many meditation root texts, practice manuals, and commentaries developed over at least 2,000 years, and each of the five Tibetan schools has specific perspectives on the theory and practice of contemplative

development, and continues to train contemplatives in these inner sciences to this day. This cultural wealth amounts to massive amounts of interior phenomenological research that has yet to be translated.

The emphasis in the essence stages of practice is on the transformation of the larger phenomenological context, the modes of operation, and not the content arising within the context. The lineage of the Western adult research, of which O'Fallon's work is the latest integral generation, suggests that there is an unfolding of perspectives (see Table 3: shifting from individual to collective, external to internal, active to passive) within the phases of growth within each tier or basis of operation that follows a deep organizational structure. Future psychological investigation into these stages of development can assist in developing pedagogical approaches that bring together the best of the deconstructive wisdom of contemplative practice with practices designed to develop more integrative cognition/metacognition.

The Indo-Tibetan Tradition

As discussed in the previous chapters, the Indo-Tibetan essence traditions have been practiced as a form of psychological development in some form for thousands of years. The Tibetan Bon tradition locates its genesis in the shamanic traditions originating 9,000 years ago, while the Indian Buddhist tradition locates its initiation 2,500 years ago. As such, the tradition is a wealth of knowledge, and practice, that is still alive in the form of the five Tibetan lineages of the Bon, Nyingma, Kagyu, Sakya, and Gelug schools.

The goal of the contemplative essence psychology of mahamudra and rdzogchen is the development of full human potential known as a Buddha in Sanskrit or Sangs rgyas in Tibetan (Buswell 2013). In Sanskrit, Bud means awakened and Buddha literally means

awakened one. The Tibetan term gives more insight into the goal, Sangs means *purifying*, the purifying of emotional and cognitive distortions, and Gye rgyas means *flourishing, the flourishing of the 80 positive qualities of an enlightened mind*, that are expressions of omniscient wisdom. Therefore, a Buddha is an awakened being, having fully purified the emotional and cognitive distortions of multigenerational traumatic conditioning, and opened to the omniscient capacity to lead other beings to that realization. The process of purifying emotional and cognitive distortions is a goal that Western psychology also aspires to. However, the depth of awakening in the Indo-Tibetan tradition goes beyond the awakening from psychodynamic issues, and from dysfunctional cognitive and behavioral patterns that functioning in contemporary culture necessitates. This fruition of human potential manifests itself through:

- the different phenomenological dimensions that are fully cognizant through waking, dreaming, and deep sleep states known as the three-fold embodiment of unbound spaciousness (dharmakaya), lucid awareness (samabhogakaya) with non-dual geometric archetypal light fields (buddha realms), and the physical emanation body of everyday reality (nirmanakaya)
- the primordial wisdoms of mirror-like clarity, equanimity, discriminatory awareness, all-accomplishing executive functioning, and all-pervading spaciousness
- enlightened activity in the form of skillful application to reduce individual, cultural and social suffering and lead beings towards the realization of their full potential (Thrangu, K. 2011)

The Loevinger, Cooke-Greuter (2013) and O'Fallon (2012) lineage of adult research gives us a perspective that this process of contemplative growth is not just the development of the capacity to access states, or develop traits, of consciousness, but is a continuation of the psychological growth process that begins in infancy. Each unfolding stage of cognition (sensorimotor, preoperational, concrete operational etc.) leads to a metacognitive application of that intelligence towards the internal world of the psyche. There is both the growth of the mind's capacity for increasing complexity of perspective taking and interpretation, and simultaneously an increasing freedom of perspective. As an infant grows into childhood there is both a growth in the increasing complexity of cognition, and affect, and simultaneously a greater degree of being able to defuse from the objects of experience that leads over a life-time to greater freedom and simplicity of being as the self moves though the four tiers or shifts in the fundamental basis of identity operation (Brown, 2017), or existential mode (Dorje, 2013). In other words, human beings grow through both increasing levels of *complexity* related to cognition and increasing levels of *freedom* based on meta-cognitive perspective taking. Both vectors of development involve a process of defusion, of making the subject an object (Kegan, 1982), of reperceiving (Shapiro, 2009), and detachment (Bohart, 1983). This contemplative mechanism of being aware without mental engagement in the contents of awareness is central to the process of passive fusion, active and reciprocal differentiation and interpenetrative integration (Wilber, 2000, O'Fallon, 2013) that is the driver of psychological growth through all stages of ego development.

Buddhahood is often described as the fullest expression of wisdom and compassion. Wisdom refers to the deconstruction and liberation from fusion with all

cognitive structures so that the light of awareness never goes out whether in waking, dreaming, or deep sleep states. Compassion refers to the development of skillful responses to the needs of other beings. Compassion therefore does not just refer to an affective state, but to the construction of cognitive capacities and skills to understand and respond to relative reality in such a way as to reduce suffering and lead other beings in the direction of their full potential. This is the same process discussed in the research on ego development; the increasing capacity for defusion allows for deconstructive shifts in the fundamental basis of operation (wisdom), from which more complex adaptions to life circumstances can be made (compassion).

In the broader tradition of the Mahayana, within which the essence tradition is the quintessence, Buddhahood refers not just to a deconstructive liberation from all experience, but also a deeper integration and reorganization of cognitive structures brought about through a profound understanding of the various stages of practice and their pedagogical application in reducing human suffering. For instance, the Bodhisattva Maitreya's work the Abhisamayalankara, which is studied by all the lineages of Tibetan Buddhism, outlines eight topics of study, the first of which is omniscience (Skt. sarvajñāna; Wyl.ie rnam mkhyen), a very specific term in Indo-Tibetan Buddhism. Omniscience refers to the culmination of the knowledge, skill, and direct experience of how to reduce suffering and increase happiness through each of the Buddhist vehicles of practice: the basic Buddhist causal vehicle of reducing suffering, the bodhisattva vehicle of emptiness and compassion, and the essence practices of Buddhahood.

From the perspective of the Indo-Tibetan essence tradition, psychological reality itself, and the dynamic creative processes within the psyche, are expressions of essential

being, the unified underlying intelligence beneath the dualist constructions of consciousness (Guenther, 1989). As such the process of ego development is not just a progressive overcoming of the obstructions to one's true nature, but is the expression, distorted in earlier stages due to fundamental ignorance of the nature of the unfolding intelligence of compassion. In a cultural environment dedicated to the education of the human heart and mind, such as one finds in the inner chambers of the monastic colleges, ashrams, caves and hermitage sites of Tibet, Nepal, or India, the growth of self leads to a corresponding growth in compassionate intelligence. The child learns to take increasingly complex cognitive perspectives, reducing narcissism and increasing the circle of concern to include family, nation, planet, and universe in a web of relationships. In the tradition of Indo-Tibetan Buddhism this is referred to as the unfolding of relative bodhicitta (T.by ang chub kyi sems), the compassionate motivation and the ensuing knowledge towards supporting the liberation of other beings. Absolute bodhicitta itself refers to the direct realization of the constructed nature of phenomena and the recognition of the nature of the mind. (Buswell 2013). When plotted on the map of adult development researched and theorized by O'Fallon, relative bodhicitta refers to the constructive development of the higher stages of ego structure, and absolute bodhicitta refers to the deconstructive realization of awakened awareness, the deepest and unconstructed existential mode (Dorje, 2016), basis of operation (Brown, 2017), or level of contemplative metacognition. Indo-Tibetan psychology does not have an extensive research on the early stages of development (with regard to cognition), just as western psychology does not have extensive research on the late stages of development (with regard to meta-cognition).

Contemplative Metacognitive Development

The meditative process outlined by the tradition of mahamudra and rdzogchen is a process of the metacognitive refinement of psychological insight into the constructed nature of human experience. Through stages of development this process of progressively deepening insight shifts the individual from temporary states of functioning to possession of enduring psychological traits. This occurs as awareness becomes liberated from confused identification with the contents of consciousness and eventually is able to recognize its primordial nature.

In the essence tradition of mahamudra and rdzogchen that are concerned with the nature of awareness itself, metacognition is understood through the important concept of *prajna* (skt: prajna). This term technically refers to the experiential cognitive recognition of impermanence (anicca), reactivity (dukkha), no self (anatta), and in the Mahayana, emptiness (skt: śūnyatā). The term is sometimes translated as *wisdom, discriminating knowledge, or insight* (Buswell, 2013). *Jna* translates as *consciousness, knowledge* or *understanding*, and the term *Pra* is an intensifier that translates as *higher, greater,* or *supreme*. Along with training in ethics, and concentration practice, Prajna comprises the fundamental three trainings (sikkha) common to all Buddhist traditions. In terms of this work on Indo-Tibetan essence practice prajna (Tbt:s hes rad) is synonymous with contemplative metacognitive insight. This metacognitive insight, particularly into the constructed nature of experience, (śūnyatā) is what leads to the recognition of primordial awakened awareness known as *jnana* (Aky: jnana) (Tbt: ye shes). The distinction difference between prajna and jnana, metacognitive insight and primordial awakened

awareness is fundamental to understanding the mechanism of essence practice. Ringu Tulku (2017), a mahamudra teacher in the Kagyu Tradition describes:

> The word yeshe yé is short for yé né, which means ‘right from the beginning’ or ‘primordially’. Some people translate it as ‘pristine’ or 'pure', meaning that it is untouched and unstained, and has been there all the time. It is the way it always was. So yeshe is discovered with sherab. Yeshe is understood by sherab, or approached by sherab. Ringu (2017).

In other words, primordial awakened awareness is discovered and understood by metacognitive insight. He continues:

> The difference between sherab and yeshe is very subtle and slight. But I think we can say that yeshe is the most natural state of our awareness or consciousness, which is unstained, uncontrived and completely ordinary. It is there all the time, but we don’t recognize it. It is sherab that brings about the recognition, but of course they are not two separate things. Ringu (2017).

Primordial awareness is always there, but one typically doesn’t recognize it. It is metacognitive insight that brings about its recognition, but these are not actually in essence separate, as metacognitive insight is an expression of primordial awareness.

As previously discussed in Chapter Three, the process of contemplative development as outlined in the essence traditions is a metacognitive process of learning to shift the psychological basis of operations to deeper and deeper levels of awareness. Four levels of operations are outlined in the process of practice:

- the coarse level of mind, which has a basis of operation of awareness fused with body, thought, and self structure, and is also the foundational metacognitive mode of the concrete tier of development (StAGES 1.0-2.5)
- the subtle level of mind, which has a basis of operation of awareness beyond the self-structure, and is the foundational metacognitive mode of the subtle tier (StAGES 3.0-4.5)
- the very subtle level of mind, which has a basis of operation awareness beyond temporal/spatial processing, and is the foundational metacognitive mode of the metaware tier (StAGES 5.0-6.5)
- and, the awakened level of mind, with a basis of operation beyond informational processing of the intentional/attentional system, and which is the foundational metacognitive mode of the unified tier (StAGES 7.0-8.5)

The essence of the developmental process through these stages is the recognition of deeper levels of awareness (basis of operations (Brown, 2017), modes of existential awareness (Dorje, 2016), and the relationship between these phenomenological fields of awareness and the information (perceptions, emotions, cognitions, beliefs) that arise within the field. In order to integrate a new existential mode, all the mental activity of the previous level needs to be left behind temporarily so that the new basis of operation can be recognized and stabilized. However, once one has arrived at the new basis of operation through successive intensive meditation practice, the relative activity can be integrated in the new view.

The shift from identification with the self-structure to awareness beyond self-structure first depends upon the practitioner recognizing, through insight meditation, that

the self is a mental construction. The meditator then concentrates on the recognition of awareness that reveals itself as being beyond this self-structure. This continues until this awareness beyond the self is established as a new center of identity, a new basis of operation. Once this basis of operation becomes stable the relative activity of the mind can be allowed to return but this time viewed from a different existential mode. The change of basis of operation does not just change the fundamental level of identity or existential mode, but also allows for the reorganization of one's perception of the self-structure. Really understanding that the self is a construction allows for the re-organization of the self-structure and its personal narrative into a structure that appreciates its relative existence. As such the process of deconstructing the self-existent reified entityness of the self offers the opportunity for reconstructing a new self-informed by the knowledge brought about by the transition to a new identity/basis of operation. In the developmental theory outlined by O'Fallon in Chapter Four this reconstruction of the self happens at the 5.5 and 7.5 stages after the stabilization of a new basis of operation at the metaware tier of the very subtle level of mind 5.0 and the unified tier of the awakened level of mind 7.0.

Essence practice begins with the recognition of the emptiness of temporal experience, which opens up the recognition of a spacious field of timeless awareness as a new basis of operation (5.0) This process of orienting toward the larger whole field and then integrating the parts within the field is fundamental to the essence contemplative path. Once there is a new basis of operation, the practice of one taste meditation (see chapter three) begins as the meditator works to maintain this newly emerged point of view simultaneous to the ongoing everyday activity of thought, affect and mental

imagery arising in the mind. The emphasis is still on learning to stabilize the field of psychological operations during this mental activity and not suppressing it.

When through the deepening of purification caused by maintaining timeless awareness as a basis of operations, the coarse and subtle level mind with its concrete and abstract concepts quietens, the mind becomes non-conceptual, and the student orients to the field of spacious experience recognizing the non-duality between the awareness and the background spaciousness of the sensory fields. This realization of the spaciousness of mind opens the path of practice known as *spacious freedom* which is also associated with the direct experience of interconnection and interdependence that are indicative of the authentic experience of compassion as understood in the Mahayana, a compassionate spaciousness that phenomenologically is experienced as holding all beings of the past, present and future in a deep motherly embrace.

At that point the practitioner then refines the recognition into the empty constructed nature of all experience and purifies the residual, hidden, deep and subtle core beliefs of the increasingly diaphanous self-structure. This purification leads to a natural non-dual state of timeless awareness-space without any artificial activity of mind and within which all mental activity arises automatically and naturally as empty open constructions.

This natural state is then used as a foundation upon which to set up the orienting instructions of non-meditation where the practitioner shifts his or her identity out of identification with the attentional system's localization of individual consciousness and information processing to the non-localized, limitless basis of operation, and the existential mode, of awakened awareness. This is the establishment of a new

phenomenological field of awareness, and, in order to stabilize this new level of development, as at the previous level of practice in recognizing the awareness empty of time, the identification with all the mental activity of the previous level needs to be left behind temporarily so that a new, and in this case, referenceless identity as unbounded, pristinely lucid awakened awareness, can be established.

Next, the practitioner deepens the strength of this realization by integrating into the new phenomenological basis of operation, through dream and sleep yoga, the deep habits of the unconscious substrate mind. By developing the ability to maintain the basis of operation during the typically unconscious processes of dream and sleep the karmic tendencies created through identification during the life span, and deepest levels of non-awareness are transformed until all dream and sleep experience is viewed as an expression of awakened awareness.

Once the process of dream and sleep integration is completed the waking sensory experiences and conceptual thought are integrated into the awakened awareness. At this point of development experience is an uninterrupted non-meditation where all experience automatically arises as *self-arising* and *self-liberating* (rang shar rang grol). It can be hypothesized that there is sound logic to placing emphasis on sleep and dream yoga prior to the full integration of waking sensory appearance and conceptual activity. One likely reason is because dream and sleep yoga helps address the deepest unconscious patterns and karmic tendencies of the mind. Unless these deepest aspects of the mind are addressed first, their constant unfolding in the unconscious background of experience would continue to cause reactivity and disruption whilst the practitioner attempts to integrate waking sensory appearance and conceptual thought.

The process of realizing self-arising and self-liberating (rang shar rang grol) is completed when the storehouse of karmic tendencies—all unprocessed individual, ancestral, cultural, and racial conditioning–is released and exhausted (dharmadhatu exhaustion). When the conditioning is thoroughly purified (T. Sang) the basis of operation of awakened awareness becomes operational through all states, and the mind opens (Tt. Gyé) to the positive qualities of omniscient wisdom.

Contemplative Cognitive Development

Along with meditative training the Indo-Tibetan Buddhist contemplative education also emphasizes cognitive training comprising knowledge in ten fields that have been the focus of the traditional course of study since the first monastic universities of Nalanda in India and Samye and rDzogchen monasteries in Tibet. These ten fields can be reduced to five: logic, language, medicine and healing, the arts, and the Buddhist science of mind. The goal of this liberal arts education is to develop the knowledge and understanding that can be used to assist society and the individual in the alleviation of suffering and the promotion of wellbeing leading to Buddhahood (Tai Situpa & Terhune, 1992). This education supports the development of the relative bodhicitta, the development of the compassionate self that was mentioned above. Maitreya, in The Ornament of the Mahayana Sutras (Skt. Mahayanasutralankara, one of the five treatises of Maitreya) states:

> If efforts are not made in the five sciences. Even great beings will not attain omniscience. Therefore, to refute and to nourish, and to attain omniscience, make effort in the five sciences. Gyatso, (2016, p.42).

The goal of the bodhisattva includes liberating all sentient beings from their suffering and pain, and developing these ten aspects of knowledge within them (Dzogchen Ponlop, 2017). The contemplative education and development of the bodhisattva was not just in metacognitive contemplative practices (as discussed above) but also in cognitive training. This is an important understanding because a bias in the West has been towards seeing contemplative development as entirely a non-conceptual process. However, in actuality the psychological development of essence practice takes place within the context of a larger liberal arts education. That is not to say that there have not been great non-educated practitioners outside the contemplative academies but they have tended to be a minority. An example of cognitive knowledge important to supporting contemplative growth would be the maturing through the Metaware tier and One Taste contemplative practice of understanding relationship between the constructed nature of time/space and the unconstructed nature of mind. As the ego responds to the stabilization of a timeless basis of operation, and the self traverses the stages of being integrated into that larger context, O'Fallon's research (2013), discussed in Chapter Four, reveals that that the ego shifts from a large historic time frame and planetary space frame at 5.0, to an understanding at 6.5 of evolution in the *eternity* of time and *infinite* of space. At that stage of integrating context and content it is understood that eternity and infinite are content, they are vast constructions of mind within which the evolutionary process continues indefinitely. Within that construction the mind can intuit possible futures along the trajectory of time/space. However, this form of intuitive knowing is still based on a subtle construction of time and space beyond which is the unbound and timeless unconstructed nature of mind. At this level of stabilized contemplative development the fullness of evolution is held in the

openness of unbounded awareness as part of the individual's on-going moment-by-moment experience. Practitioners at this level of development report experiencing the unfolding of cosmic evolution simultaneous to a liberating freedom and compassion whilst engaging in the everyday activities of daily living.

As can be seen in Table 3, the stages of cognitive development continue through the two highest tiers of adult development, in which the very subtle and awakened metacognitive basis operation are functioning (Table 4). Without continued cognitive development the fullest flowering of human capacity, Omniscience, the integration of the ever evolving compassionately motivated self-function with the always already here intelligence of awakened awareness cannot happen.

Cognition and Metacognition. In the StAGES model of adult development O'Fallon articulates how exteriors (cognitions) are understood before interiors (metacognitions) (Murray, 2017). Theoretically, for instance, we can then take Common's (2014) cognitive model of hierarchal complexity, and add a metacognitive stage to each level of development (see Table 3 below). At these sub-stages the individual is using the sophisticated cognition that they have developed in cognizing about the exterior world, and are now directing that cognition towards the self in the form of metacognition. "All the stages of identity development, therefore, rely on different forms of outer-directed cognition eventually being used in the inner world of the self" (Forman, 2010, p. 80). Once new cognitive capacities are developed in response to the world those same capacities then are applied metacognitively in relating to and thinking about the self-structure. This process then re-formats the self-structure according to the

new higher order cognitive actions. As such, each level of cognitive complexity also has a possible level of metacognitive complexity.

For example, at 3.0a of O'Fallon's model an individual learns to apply abstract formal operational thinking towards the outside world. In doing so s/he begins to see the outside world through the subtle lens (subtle tier) of rational causality rather than the concrete operations. Through this cognitive capacity a host of new perceptions, cognitions and affects arises. At some point during this developmental process the individual begins to apply the abstract cognitions metacognitively (3.0a) towards her/his understanding of self. In doing so there is a transformation in the fundamental sense of identity, the basis of operation. This process repeats itself at 5.0a (Construct Aware) where an individual's paradigmatic cognitive capacity expands to see the constructed nature of the external world and of language itself. This process then matures at 5.0b where that cognitive capacity to see the constructed nature of experience including time is then applied to the self-structure. In doing, so there is a fundamental shift in the basis of operation as the emptiness of time and self-structure is recognized and the very subtle awareness of the Metaware tier comes to the forefront of experience. This is a passive stage of development as the individual attempts to stabilize a completely different existential mode of functioning during which the active functioning of the ego structure often takes a back seat.

Table 3 Examples of the developmental process of cognition/metacognition through the StaGES levels 3.0a to 5.5b

Subtle Tier	**Stage**	**Tier**	**Individual Collective**	**Passive Active**	**Commons (2014)**	**Active/Passive**
3.0a	Expert (early)	Subtle	Individual	Passive	**Exterior Abstract**	Passive

					Cognition	
3.0b	Expert (late)	Subtle	Individual	Passive	**Interior Abstract Metacognition**	Passive
3.5a	Achiever (early)	Subtle	Individual	Active	**Exterior Formal Cognition**	Active
3.5b	Achiever (early)	Subtle	Individual	Active	**Interior Formal Metacognition**	Active
4.0a	Pluralist (early)	Subtle	Collective	Passive	**Exterior Systemic Cognition**	Reciprocal
4.0b	Pluralist (late)	Subtle	Collective	Passive	**Interior Systemic Metacognition**	Reciprocal
4.5a	Strategist (early)	Subtle	Collective	Active	**Exterior Metasystemic Cognition**	Interpenetrative
4.5b	(Strategist) (late)	Subtle	Collective	Active	**Interior Metasystemic Metacognition**	Interpenetrative
5.0a	Construct Aware (early)	Metaware	Individual	Passive	**Exterior Paradigmatic Cognition**	Passive
5.0b	Construct Aware (late)	Metaware	Individual	Passive	**Interior Paradigmatic Metacognition**	Passive
5.5a	Transpersonal (early)	Metaware	Individual	Active	**Exterior Meta-cross Paradigmatic Cognition**	Active
5.5b	Transpersonal (late)	Metaware	Individual	Active	**Interior Meta-cross Paradigmatic Metacognition**	Active

A toggling is apparent here between the object and subject, as well as between the event perspective and mind perspective that was mentioned in Chapter Three as being an integrative process of contemplative development. For instance, during the process of developing attentional capacity the practitioner begins by developing the ability to stay

on an object from the event perspective. Once stability is developed the meditator learns to switch perspectives and meditate from the mind perspective on the inherent spaciousness, non-reactivity, lucidity, and knowingness of awareness. (To say it another way, one shifts from the content of experience to the meta-cognitive contextual awareness of the experience.) When the aspirant begins to study emptiness he or she would also first come to understand emptiness through its application in the analysis of everyday objects, the most common approach being Chandrakirti's sevenfold reasoning. Once the understanding emerges that the human body, a car, etc. can be broken down into innumerable parts, none of which constitutes a *body*, then that same analysis can be non-conceptually applied in meditation to the self-structure leading to a recognition of a level of awareness beyond the self. This same pedagogical process of focusing first on the event repeats itself to support the recognition of the space-like nature of awareness during one-taste yoga, and the recognition of referenceless awakened awareness during non-meditation.

In the language of the StAGES model: the theoretical focus of adult development articulates through research the stages of self-structure. Seen through that lens, contemplative psychology provides the theory and means for recognizing the bases of operation that are the foundational identities of the higher tiers of development (metaware and unified) necessary for full adult development. From the perspective of Indo-Tibetan essence psychology, contemplative practice focuses on the knowledge and skills to support the recognition of new contextual existential modes of awareness, basis of operation, and the integration of perceptual and mental content into those basis of operations. As seen in Table 4 below, the direct relationship between the tiers of

development, levels of mind, and basis of operation allow for a potential theoretical integration of these theories.

Table 4 Tiers of Ego Development, Levels of Mind, and Basis of Operation

Tier of development	**Level of Mind**	**Contemplative Bases of Operation**
Concrete	Gross	awareness fused with body, thought, and self structure
Subtle	Subtle	awareness beyond the self-structure
Metaware	Very Subtle	awareness beyond temporal processing
Unified	Awakened	beyond localized informational processing of the attentional system

For instance, one can see the potential integration of these theories through emptiness practice, the contemplative metacognitive practice of examining direct experience to recognize its constructed nature, as it matures through the stages of contemplative practice. First the student learns the theory, that everything in reality is constructed, made of parts connected to other parts ad infinitum. This truth is examined conceptually as it relates to the objective and subjective world of experience (in other words they are given the cognitive map). This cognitive understanding is then matured through a series of progressive metacognitive practices examining specific psychological structures. The examination begins with the investigation of body, self, emotions, thoughts, time, duality, core beliefs, and the attentional system.

Through the perspective of adult development, specifically the Loevinger/Cooke-Greuter/O'Fallon lineage of ego development research and theory building, a similar process can be described through a different language. As the ego structure moves

through the later stages of the subtle tier of development (see Table 3.), metacognition develops to recognize the constructed nature of the self. At O'Fallon's *4.0 Subtle, Passive, Collective, Reciprocal* (Cooke-Greuter's Individualist stage) the cognitive capacity for systemic (Commons) thinking supports the self-recognition that the self is a multiplicity of systems. In the *fourth person* perspective one is able to stand outside systems (self and society) and cognitively recognize the social construction and relativity of experience. Directing that insight towards the self the 4.0 self-structure metacognitively recognizes its personal and cultural conditioning and is able to differentiate the multiplicity of the self (inner child, parent, victim, perpetrator, worker, etc.). This capacity for seeing the constructed nature of experience matures at *4.5 Subtle, Active, Collective, and Interpenetrative*. As metasystematic cognition matures (Commons) there is deepening appreciation for the constructed nature of boundaries and the interdependent nature of the external reality. This capacity is applied metacognitively, which leads to a deepening appreciation of the empty nature of the self through its interdependence with other external, and internal systems. As such, the 4.5 self-system begins to become aware, after the fact, of its construction of experience in the form of psychological projection.

The theories of adult development reveal that individuals develop from a conventional linear understanding of reality and the self to an understanding and experiencing of the systemic nature of the self with variables that are interdependent, causality that is cyclical, and open boundaries between systems (Koplwitz, 1984), (Cook-Greuter, 2007). This relativistic experience of the self is, from the perspective of the essence traditions, the beginning of recognizing the emptiness of the self. Beginning at a

pluralistic consciousness (O'Fallon's Stage 4.0) that recognizes the social construction of the self, the ability to recognize mental structures that have been fused with awareness, matures into recognition of the creative construction of language, meaning, and perception (Cook-Greuter, 2000) (O'Fallon, 2010a). According to the research done by O'Fallon this culminates at 5.0 with the recognition that experience of time is also a construction that obscures the timelessness of awareness. This developmental process leads to the same recognition as articulated in the Indo-Tibetan emptiness practices that culminate in the experience of the emptiness of temporal organization and the recognition of the very subtle level of mind. So both Indo-Tibetan contemplative psychology and the research into adult development indicate that through understanding the constructed and relative nature of experience the individual eventually shifts to recognizing a whole new existential mode, a basis of operation, or tier of development. The person shifts from recognizing the self as comprising subtle relative parts to an identity as a whole field of very subtle timeless awareness, the Metaware tier of the StAGES model. During this phase of growth, the timeless basis of operation and the non-dual realization of the contents stabilizes. Simultaneously, the ego development research indicates that the mind expands its phenomenological perception of time from a historic planetary perspective at 5.0 to the recognition of the infinite cosmic evolutionary process at 6.5. Metacognitively this means that the self is experiencing and understanding itself at 5.0 to be expression of a historic ancestral process. The individual recognizes from a timeless basis of operation that the self and the language used to describe the self has been constructed over multiple generations. This matures and deepens so that by 6.5, the end of the Metaware tier, the individual recognizes from a timeless basis of operation that the self is an expression of a

cosmic evolutionary process played out on the stages of infinite time and space. These insights are not just cosmological musings, but are how the individual interprets and makes sense of everyday challenges. Just as the Great Law of the Iroquois held that all decisions should consider the next seven generations (140 years), at the level of 6.5 there is an ethical appreciation that each decision should consider the cosmological evolutionary process and whether decisions are reducing or increasing psychological, physical, cultural, systemic, and environmental suffering for the whole.

> Throughout the world at this moment, without distinction of class, calling or creed, men and women are appearing who have begun to reason, to act and to pray in terms of the limitless and organic dimensions of Space-Time. To the outside observer such men and women may still seem isolated. But they are aware of one another among themselves, they recognize each other whenever their pass cross. They know that tomorrow, rejecting old concepts divisions and forms, the whole world will see what they see and think as they do. De Chardin (2004, p. 89).

Due to the lack of research subjects at this high level beyond the 7.0 stage O'Fallon's model is purely theoretical. However, as we shall see the process itself, the recognition of a whole field, and then the integration of parts into the whole is a deep developmental structure that repeats itself. Mahamudra non-meditation or rdzogchen cutting through (khregs chod) meditation allows the shift in the basis of operation of psychological operations to awakened awareness which when stabilized becomes foundation for the Unified Tier of adult development. This involves the recognition of individual consciousness, the informational-attentional system, as an empty construction.

Initially, the stabilization of this basis of operation takes the forefront of experience, as the relative activity of the mind is less emphasized allowing for the familiarization with this new identity. Based on the re-occurring patterns at the first stage of each tier (1.0, 3.0, 5.0, 7.0) O'Fallon's model suggests that at the first stage of the very subtle metaware (5.0) and unified tier (7.0) the level of awakened awareness, the passive realization of the new basis of operation, will be its primary feature. This is exactly what happens phenomenologically at this level of mahamudra and rdzogchen practice. Following the 5.0 and 7.0 phases of practice the stage 5.5 and 7.5 emphasizes the reconstruction and reformatting of the self through integrating the contents of mind of back into the new contextual basis of operations. In mahamudra meditation at the level of 5.5 this is done through the one taste yoga practice of ocean and waves meditation during which the contents of mind are integrated into the very subtle level timeless basis of operation. This pattern repeats itself at 7.5 in the A Khrid rdzogchen practice where the content of appearance and then thought is integrated into the existential mode of awakened awareness during session 12, *training Liveliness with respect to appearances during the day*, and session 13, *Taking conceptual thought as the path.* The awakened basis of operation leads to the meditation view known as rang shar rangrol (self arising, self liberating): the view of the inseparable pair of open ground and whatever arises within the open ground as the liveliness of the field. With no artificial mental engagement there are no memory traces and this then establishes the automatic release of ripening karmic tendencies leading to the process of dharmadhatu exhaustion (Brown, 2017).

Theoretically, from the perspective of Western psychology that looks at the content of experience and not the context (basis of operation), this process is *a regression*

in the service of transcendence (Washburn, 1988), with a stabilized awakened basis of operation there is no longer any ego defense active in the on-going experience and all the unprocessed, repressed, disavowed psychological content that has accumulated over a life time can how begin to be released. This is the experiential psychosomatic extinction of early childhood object relations, early traumas and the conditioning of perinatal experience (Grof, 1993). As the personal unconscious is released into awareness and automatically processed, then the deeper organizing archetypal structure of the mind begins to reveal itself as an unfolding process of spontaneous visionary experience known as thod rgal (Smith, 2016). At this level of mind, the underlying archetypal energetic structure of psychological reality reveals itself as non-dual with awareness. In rdzogchen this non-dual archetypal creative expression of the nature of awareness is known as rol pa *play* energy, and is differentiated from the non-dual dgangs *elemental* energy of thought and fantasy, and the non-dual tsal *liveliness* energy that expresses itself as a supposedly external material world (Capriles, 2006). The fruition of this process is stage 7.5, Buddhahood, the full understanding of the causes of human unhappiness and the realization of the path of deep human fulfillment and happiness where all conditioned reified structures have been seen through as empty constructions, all accumulations of conditioned memories (karmic traces) have been released. This leaves the mind stainless (Tbt: tri med) allowing awareness to be self-sustained through waking, dreaming, and deep sleep states, and the flourishing of the 80 positive states of a developed Buddha mind dedicated to altruistic service of all embraced sentient beings.

Taxonomy of contemplative cognition and metacognition. The practice of this contemplative psychology does not just rely upon metacognitive meditative skill. The

pragmatic cognitive knowledge of the theory is a vital aspect of the contemplative developmental process. Using the model described by Flavel, and also used by Jankowski and Holas (2017) to describe mindfulness practice, contemplative psychology can be differentiated into three distinct components: direct experience, which refers to present moment phenomenological experience; contemplative knowledge: and metacognitive skills. This differentiation of knowledge and skills helps to give us insight into the processes that drive such deep psychological transformation.

Contemplative Knowledge. The contemplative knowledge needed to authentically practice the mahamudra or dzogchen essence psychology would include at least:

- knowledge of causal (Hinayana), systemic (Mahayana), and (essence) metasystemic levels of analysis to understand the causes of individual and social suffering and happiness
- basic knowledge of how individual psychology, personal health, and the outer environment effect learning and practice
- knowledge of motivation and its development from an individual focus on peak performance to the full maturation of the heroic altruism seen in the bodhisattva
- The knowledge of the importance of character strengths and their development, and the self-knowledge needed to recognize personal character strengths and weaknesses
- a pragmatic understanding of contemplative Buddhist psychological models of mind (attention, eight consciousnesses, levels of awareness, mental structures, etc.)
- understanding of the theoretical map of the contemplative journey

- knowledge of the theory and developmental stages of practices for visualization, concentration, mindfulness, insight, energy cultivation, dream and sleep yoga, and essence practice
- the knowledge of the interaction between the practices and the possible aberrations of the practices

Contemplative Metacognitive Strategies. This is the procedural metacognitive knowledge that allows the learner to oversee the contemplative learning process through planning, regulating, deconstructing, monitoring and evaluating cognitive outcomes with internal and external standards, and the specific metacognitive skills associated with the various meditative practices. For example, these strategies would include;

- monitoring contemplative progress through the use of executive control to develop an orientation, plan, regulation, monitoring, and evaluation strategies of the practice
- attentional regulation and development through concentration practice
- moment-to-moment awareness through mindfulness practice
- insight practice into the constructed nature of body, self, perception, time, duality, and individuality
- energy practices
- sleep and dream yoga
- essence practice (Nonmeditation and/or cutting through)

It is important to emphasize the significance of the fundamental cognitive skill of sustained attention that is developed in the tradition through the practice of calm/staying concentration meditation. The stages of meditation are a form of learning, and like all

forms of learning the ability to concentrate on the topic at hand is primary to becoming familiarized with the material. The research undertaken into the stages of contemplative metacognition reveal that the Anterior Cingulate Cortex (Schoenberg, 2018), which is activated in states of heightened concentration, is engaged by intermediate practitioners when learning to stabilize the new existential modes of operation in one taste and non-meditation. The training of attentional capacity is therefore fundamental to moving into the stages of adult development associated with contemplative practice.

The use of Flavell's model of metacognition to illuminate the metacognitive taxonomy of the Indo-Tibetan contemplative psychology into knowledge, skills, and experience can help to articulate the complexity of learning that goes beyond just the simple rote application of a meditative technique. The contemplative learning process is an interaction between direct contemplative experiences caused by metacognitive strategies and then informed and interpreted by contemplative knowledge. This psychological process has been historically undertaken within the larger context of a monastic liberal arts education that included study and intensive retreat experiences. The task ahead is to create pedagogical environments that lead to the flourishing of an contemplative psychology on western ground. Such integral environments would integrate the practices of psychological healing, self-development, and self-transcendence with the training of the aspirant within a particular field of activity such as law, government, religion or education. Perhaps then we have the hope to become a *civilization beyond discontent* (Brown, 1986).

Recommendations for Future Research

It is the hope of this author that as continued research unfolds into the levels of metacognitive identity, and into the basis of operations underneath the four tiers of adult development, a more refined theoretical understanding develops leading to a deepening interest in Buddhist essence psychology. As seen in recent research (Schoenberg, 2018) an increasing number of Western practitioners are developing through the traditional stages of contemplative realization. As such, the next step in the research is to investigate those few individuals who are stabilizing awakened awareness and purifying the unconscious mind through the practice of automatic dharmakaya release (rang shar rangrol).

Clinical Implications

The adult developmental psychology of the Buddhist essence traditions has relevance to our understanding of psychopathology. It can be surmised that a path of contemplative practice that facilitates developmental would certainly make it easier to clear past developmental fixations. Forman (2010) in his text on integral psychotherapy noted that there has been little research on stages of adult development and psychopathology except that done by Gil Noam. In Noam and Dill's study of 89 adults in an outpatient facility (1991) it was discovered that whilst psychiatric symptoms exist at every stage of self-development there "was a clear decrease in symptom severity in those individuals with higher levels of identity development" (Forman, 2010, p. 95). This finding was also later corroborated with adolescents (Noam & Houlihan, 1990), Forman quotes the authors conclusions: "Correlations between identity development and symptom severity scores were uniformly negative indicating decreasing distress from

psychiatric symptoms with increasing ego maturity, across all symptoms dimensions" (Noam & Dill, 1991, p. 214). Further research into advanced practitioners of Buddhist Essence meditation, and psychopathology would be an important contribution since Noam's research only tested subjects up to 4.0 and none who had shifted a basis of operation to the metaware tier of ego development**.** The implications of snags rgyas, the flourishing of positive mental states in an enlightened mind are profound for our understanding of mental health. The contemplative tradition teaches a means of treating the mind to eradicate all negativity, so the mind becomes stainlessly clean (Tbt: dri med) and open. Within that openness the 80 positive qualities of mind can flourish. A study undertaken by Daniel Brown Ph.D. and Jack Engler Ph.D. (1986) revealed this potential in the Rorschach of a Theravadin meditation master. Rorschach data were taken from tests with meditators across the stages of contemplative development. Whilst intermediate meditators still showed signs of psychopathology and even personality disorders, the one Rorschach of the master showed that his intrapsychic structure had undergone a radical reorganization with no evidence of any sexual or aggressive drive conflicts, or any instinctual drive for that matter, pointing to the fact that there are no permanently opposed endopsychic structures at the core of the personality structure. This understanding of the possibility of the positive mind is essential to our understanding of mental health and the direction that investigation should pursue.

Further research into the phenomenology of the higher tiers of adult contemplative development will also reveal the subtler forms of pathology associated with these realizations. Essentially the crux of pathologies related to the different basis of operations, existential modes, is linked in the language of Indo-Tibetan contemplative

psychology to the under or over application of emptiness. "Problems at any of those sub-phases will generate pathologies (for example, failure to adequately dis-identify or transcend creates a fixation or addiction; failure to adequately integrate or include creates an avoidance or allergy" (Wilber, 2017, p. 413). It will be increasingly important that these possible pathologies are understood so that psychologists trained in contemplative practice will be able to differentially diagnose and treat such pathologies.

Summary and Conclusion

The purpose of this study has been to assist in the translation of Indo-Tibetan essence psychology into a form that Western psychologists, and educated lay-people can understand. It is hoped that through greater understanding as culture we will come to have a deep appreciate and respect for the profound and insightful psychological theory and praxis that this tradition has to offer and as such be willing to engage in practices seriously for the betterment of the larger social good. At a time when those who hold the highest offices in the nation act like sociopaths there is a dire need for a spiritual and ethical renaissance. Contemplative psychology when enacted correctly can provide that resource. This paper has outlined the basics of Indo-Tibetan contemplative psychology, the essence psychology of mahamudra and rdzogchen, the stages of adult ego development, and the research on metacognition as means of integrating these different perspective on psychological development with the intention of placing contemplative psychology where it belongs, at the very heart of the psychological understanding of what it means to be a human being.

From the perspective of adult ego development, Indo-Tibetan essence psychology is a body of theoretical knowledge and metacognitive skills that when applied sequentially in the direct experience of the practitioner leads to the unfolding of deeper levels of identity. These levels of identity result from the purification of awareness through disindentification from the deep structures of human consciousness through the three fundamental states of waking, dreaming, and deep sleep. The fundamental praxis is the development of post-formal metacognitive skills. Through the development of attentional self-regulatory metacognition (steering the attention, increasing interest and brightening awareness), the recognition of the impermanent and constructed experience of soma and self, the illusory nature of temporal experience dualistic perception, the individual the practitioner refines his or her metacognition capacity until even the attentional system is seen as an expression of primordial awareness reveals itself.

According to the tradition there are three main phases of purification. First, the beginning practice that leads up to the recognition of awakened awareness. The second phase of increasing stabilization and the integration of experiential content into the realization, and the third phase where there is uninterrupted clear-light awakened metacognition that can then purify the substrate consciousness of the dreaming and sleeping psyche. This culminates in what the tradition believes to be the fruition of adult development: the exhaustion of psychic conditioning, the recognition of the all-at-oneness of reality, the identification with the archetypal structure of reality, and the capacity for heroic altruism and enlightened activity mediated through the five primordial wisdoms, known as Buddhahood.

Currently the practice of this developmental psychology is maintained within the relatively strict boundaries of traditional Tibetan lineages, which, from an exoteric perspective, package the practices in the garb of traditional religion. However, the esoteric theory and practice of Indo-Tibetan Buddhism has little in common with religion and has much to offer the modern world's understanding of mental health. Western psychology is, comparatively, in its infancy, and the advent of positive psychology as a major field is less than two decades old. The field of Indo-Tibetan contemplative psychology offers a tradition of practice developed to mature human positivity to its fullest, and is based on hundreds, even thousands of years of practice-based evidence, which is slowly being corroborated by research in the brain sciences. The integration of mindfulness and compassion practices in psychotherapy is only the very beginning of a meeting of western and eastern psychological traditions. The implications of the meeting could in time lead to a fundamental paradigm shift in psychology and education.

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