SHAMATHA PRACTICE AND THE PURSUIT OF OPTIMAL EXPERIENCE: INVESTIGATING THE USE OF CONTEMPLATIVE TRAINING WITHIN SPORT AND PERFORMANCE RELATED DISCIPLINES

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ABSTRACT

The effects and experiences of meditation have received copious attention within sport and performance psychology, as well as philosophy. Over the last decade in particular, similar levels of interest have also evolved within other sub-disciplines of psychology and philosophy. Such work has begun to change how many phenomena, including attention, happiness, and excellence, are understood.

Perhaps the most recognized work in these areas focuses upon measuring the states and traits of relatively advanced meditation practitioners. But very little effort has been invested, as yet, in understanding the various methods that these practitioners are employing, and what purposes each of these methods serve in the contemplative context. (e.g., Lutz, Dunne, and Davidson, 2007). According to the practitioners themselves, each such method may require years or decades of study and experiential investment for genuine understanding (e.g., Begley, 2007). Given the lack of extant effort in this direction, within psychology, and the essential role that such effort must play in interpreting the ground-breaking data now being published on advanced meditation practitioners, I invested myself in full-time contemplative practice for over two years under the guidance of a qualified teacher. This period of mentorship began after five years of academic and personal investigation of contemplative practice, which itself included months of field research, as well as time spent in formal contemplative practice settings. Overall, this extended period of investigation focused primarily upon one particular category of contemplative methods - practices for training the attention, or shamatha practices - which are commonly considered among the most basic, and most essential (e.g., Buddhaghosa, 1999; Wallace, 1999).

The current work presents introductory explanations of shamatha in both a theoretical and applied context. Requisites for the successful cultivation of the practice, and possible implications for the aforementioned fields - including apparent connections between this training and the flow phenomenon identified by Positive Psychology’s Mihalyi Csikszentmihalyi – are also discussed. These discussions are focused, in large part, upon the potential of shamatha as a method for natural research and application within the study of optimal experience. Specifically, shamatha may be a methodology enabling direct empirical investigation of the mental causes and conditions contributing to optimal experience, as well as the intentional habituation, or training, of these causes and conditions for applied purposes (Wallace, 2000).
# TABLE OF CONTENTS

List of Tables..................................................................................................v
Acknowledgements..........................................................................................vi

Chapter 1. Introduction.....................................................................................1

SECTION I: THEORY
  Chapter 2: Review of Meditative Literature in Sport and Performance........27
    Zen Inspired Sport Literature.................................................................34
    Broader Eastern Inspired Sport Works...............................................41
    Empirical Work on Meditation.............................................................51

  Chapter 3: Introduction to Theory of Shamatha: Connections to Flow Theory.................................................................................67
    Attentional Imbalances............................................................................71
    Component Faculties of Attention.........................................................80
    The Stages and Accomplishment of Shamatha.................................87

SECTION II: PRACTICAL APPLICATION
  Chapter 4: Shamatha Practice in Application.........................................95
    Shamatha Without a Sign.........................................................................95
    Transcript of Guidance in Shamatha Without a Sign..........................100
    Understanding The Experience.............................................................103

  Chapter 5: Supportive Factors for Shamatha Practice...........................107
    Making Provision for Quiet and Solitude.............................................108
    Investigating the Effects of Behavior on Mental Balance.................111
    The Necessity of Empirical Ethics: The Case of Immanuel Kant........114
    First-Person Research on Ethics: Hypotheses....................................116
    The Eight Mundane Concerns..............................................................120
    The Five Primary Mental Afflictions.................................................122
    The Four Immeasurables....................................................................126
    Summary...............................................................................................133

  Chapter 6: Conclusion and Suggestions for Future Research..............137
    Introspectionist Psychology and the Missing Link of Shamatha..........139
    The Direct Observation of Flow Elements: Hypotheses....................152
    Psychology as a Natural Science.........................................................165
    Mental Kinesis.....................................................................................170
LIST OF TABLES

Figure 1: Stages of Shamatha Practice (Wallace, 2006).................................90
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“Even when we are examining a mind as if it were an object in the outside world, - when we are trying to understand the mental processes of a child or a dog or an insect as shown by conduct and action, the outward signs of mental processes, - we must always fall back upon experimental introspection. For our own mind is our only means of interpreting the mind of another organism; we cannot imagine processes in another mind that we do not find in our own. Experimental introspection is thus our one reliable method of knowing ourselves; it is the sole gateway to psychology.”

-Edward Bradford Titchener, 1909
Chapter 1: Introduction

“The great snare of the psychologist is the confusion of his own standpoint with that of the mental fact about which he is making his report.”
-William James in The Principles of Psychology, original emphasis

Considerable attention, within the philosophy and psychology of movement, has been directed at eastern contemplative experiences, as well as their accompanying philosophies. Eugen Herrigel’s Zen in the Art of Archery (1953), and Michael Murphy’s Golf in the Kingdom, probably represent the first significant, published works involving the connection between sport and things “eastern,” and have inspired many since. Murphy explained, in his later writings, that he was staggered by the similarities between optimal, even “meta-normal”, experience in sport and experiences reported by eastern contemplatives from the Hindu and Buddhist traditions (Murphy, 1977, 1992; Murphy, Donovan, & Taylor, 1997; Murphy & White, 1978, 1995).

Herrigel simply explained the story of his own journey to metanormal experience, within the meditative context of Zen Archery. Csikszentmihalyi (1990), the father of “optimal experience,” or flow as it is now known in the modern context, said of such traditions, ”When it comes to learning to control the body and its experiences, we are as children compared to the great eastern civilizations.” (Csikszentmihalyi, 1990, p103) Furthermore, he made the following observation of the wide range of contemplative practices expounded in Patanjali’s Yoga Sutras: “The similarities between Yoga and flow are extremely strong; in fact it makes sense to think of Yoga as a very thoroughly planned flow activity.” (Csikszentmihalyi, 1990, p105) Nick Watson and Mark Nesti also state, in a recent literature review on the role of spirituality in sport, that states achieved
in Zen practice and Hatha Yoga may be highly congruent with optimal performance states in sport, while others have made similar suggestions (P. Jackson & Delehanty, 1995; Ravizza, 2002; Viet-Hartley, 2005; Watson & Nesti, 2005).

As a result of these similarities, some individuals have begun to investigate whether the process of producing altered, optimal states within Eastern contemplative disciplines is similar to the way in which these states occur in sport (e.g., Douillard, 1994/2001; Garfield & Bennett, 1984; Murphy, 1992; Nideffer, 1976; Orlick, 2000). Because many in these contemplative traditions are able to produce such states intentionally and consistently during meditation, there may indeed be much to gain from investigating the process by which they go about doing so.

Ironically, however, the contemplatives identified by Murphy, and Yogis such as Patanjali, do not claim to have techniques designed for the production of altered states during meditation. Much more substantially, these contemplatives claim to have designed specialized meditative techniques in order to investigate, identify and eliminate various types of mental imbalances (e.g., Bikkhu, 1988; Chagme, 1998; Dalai Lama, 1994, 2002; Evans-Wentz, 2000, 2003; Iyengar, 2002; Lamrimpa, 1992; Namgyal, 1993; Rabten, 2005; Wallace, 1996, 2005a, 2005b, 2006b). Still more substantially, such contemplatives claim these methodologies have the potential to train mental faculties, such as attention and emotional control, through long-term subjective/mental practice (i.e., meditation), to such a degree that optimal states, of varying form and intensity, can be achieved voluntarily in a wide range of activities – not simply during meditation (e.g., Buddhaghosa, 1999; Chagme, 1998, 2000; Chatral, 2007; Dalai Lama, 1994, 2003; Evans-Wentz, 2000, 2003; Freeman, 2001; Fuang; Iyengar, 2002; Khyentse, 2008;
Keating, 2001; Laird, 2006; Lamrimpa, 1992; Maha Boowa, 1987, 1988, 2003; Maharshi, 2006a, 2006b; Merrell-Wolff, 2003; Namgyal, 1993; Padmasambhava, 1998; Rabten, 2005; Santideva, 1997; Sayadaw, 2000; Sekida, 1976; Sogyal, 1994; Spearing, 2001; Tsongkhapa, 2002; Tzu, 2000; Wallace, 1996, 2005a, 2005b, 2006b). Furthermore, individuals in such traditions have been engaging with, and refining, these training methods for thousands of years, which may add a great deal of sagacity to their claims.

Of course, their claims may well be misleading, or even untrue. Nonetheless, a major aim of applied sport psychology, from the time of its creation, has been to “…facilitate performance through the investigation of positive psychological states, such as flow and peak performance” (Watson & Nesti, 2005). Subsequently, a great many applied sport psychology practitioners have dedicated much effort towards understanding the nature of optimal experience, with the hope of discovering its causal agents and increasing its occurrence in both sport and life at large (e.g., Csikszentmihalyi, 1996, 2000; S. Jackson, Thomas, Marsh, & Smethurst, 2001; S. A. Jackson & Eklund, 2002; Kimiecik & Stein, 1992; Watson & Nesti, 2005). Given this fundamental emphasis within sport psychology, and particularly within applied sport psychology, it seems prudent, at the very least, to investigate the veracity of such contemplative claims within these fields.

An important, initial question in this investigation is: How is it that the full breadth of current movement literature displays neither explicit investigation nor explicit mention of these fundamental contemplative assertions, though many have published literature claiming Eastern influences? (ÅO & Falkner, 1984; Cooper, 1998; Douillard, 1994/2001; Gallwey, 1997; Herrigel, 1981; Huang & Lynch, 1992; Hyams, 1979; P.
Several factors appear to have heavily influenced this omission:

First and foremost, investigation - even the sheer recognition - of such contemplative claims may require extensive experiential investment. Academic inquiry is generally not considered enough to gain a truly functional understanding of the claims, theory, or methods within any particular contemplative tradition. This is a point echoed by practitioners in most all contemplative traditions, but also – perhaps even more vehemently – by the most highly regarded scholars in such traditions (e.g., Chagme, 1998, 2000; Bodhi, 2002, 2005; Brahm, 2006; Buddhadasa, 1998; Buddhaghosa, 1999; Chatral, 2007; Dalai Lama, 2003; Dhammadharo, 1994; Dudjom, 1998; Iyengar, 2002; Laird, 2006; Lamrimpa, 1992; Lhalungpa, 1997; Maha Boowa, 1998, 2003; Maharaj, 1981; Maharshi, 2006a, 2006b; Namgyal, 1993; Padmasambhava, 1998; Rabten, 2005; Rama, 1978; Santideva, 1997; Sayadaw, 2000; Sekida, 1976; Tsongkhapa, 2002; Wallace, 2005a). Although there are those within contemplative contexts who become primarily scholars, within these traditions, the highest quality academic literature is not only based upon, but also borne of, extensive practice and experiential inquiry. The current body of sport and performance literature demonstrates very little investment in practice.

Second, a sizeable portion of eastern-influenced sport literature has focused almost exclusively on Zen, or the Zen aspects of martial arts (AO & Falkner, 1984; Cooper, 1998; Gallwey, 1997; Herrigel, 1981; Hyams, 1979; P. Jackson & Delehanty,
in the sporting community look to Zen material for information about Eastern traditions,
or go so far as to refer colloquially to Buddhism, or even eastern traditions on the whole,
as “Zen”. Ironically Zen, of all the Eastern traditions, may be the most intuitive and least
yielding of information regarding its theory and methodologies outside practice contexts.
In fact, making reference to Zen as a colloquialism for things “Eastern” or even
“Buddhist,” might be largely equivalent to making colloquial reference to things “Judeo-
Christian,” or “Christian,” as Pentecostal. The result of such inaccurate stereotyping is
this: when the majority of Western sport psychologists, coaches, or philosophers of the
past reached for eastern explanations or methodologies for subjective training, they
received equivalents of the following:

…I was informed that it was not so easy to penetrate more deeply into Zen,
because Zen had no theory and no dogma. I was advised to turn to one of the arts
which were most strongly influenced by Zen, and thus to make contact with it by
a slow and roundabout route. (Herrigel 1974, p. 13)

However, these slow, roundabout routes – such as archery, the martial arts, or the
physical techniques of Hatha Yoga – are, in and of themselves, generally not considered
sufficient for developing the previously described elite-levels of cross-contextually
applicable mental ability (e.g., Deshimaru, 1982; Iyengar, 2002; Sekida, 1976). Most
contemplative traditions speak with one voice on this point. Within the Zen tradition
itself, for example, Katsuki Sekida makes the distinction between “absolute samadhi,”
which must be reached through advanced contemplative practice, and “positive samadhi”
which can reached in beginning contemplative practices involving discursive methods or
regular physical activities. Even though Sekida is, in general, highly complimentary of
“positive samadhi” as a means to “Zen activity,” he is very clear that absolute samadhi is the foundation of all Zen activity (Sekida, 1976).

Additionally, an understanding of things “eastern” as having no theory, and as being based in intuitive understanding of ideas, rather than contemplative training and exploration, runs counter to the vast majority of contemplative traditions - particularly the various non-Zen Buddhist traditions (e.g., Iyengar, 2002; Laird, 2006; Santideva, 1997; Sayadaw, 2000; Tsongkhapa, 2002; Wallace, 2005a, 2006). Such traditions have spent millennia creating something equivalent to a “subjective laboratory” through intensive training. This subjective laboratory, in turn, has been utilized to generate and test methodology, as well as complementary theory. As a result of engaging in the first-person identification of mental imbalances, studying their causal nature, and designing training techniques to causally eliminate such imbalances, many contemplative traditions have developed highly refined theory and methodologies. The generally superficial emphasis on Zen within sport literature, coupled with an inattention to other contemplative traditions, may have impeded a great many scholars on the path to identifying contemplative purposes, findings, and methodologies.

However, not all those within the sport disciplines have limited their inquiry to Zen (e.g., Douillard, 1994/2001; Huang & Lynch, 1992; Kleinman, 1986; Murphy, 1977, 1992, 1997; Murphy & White, 1978, 1995; Ravizza, 1978; Viet-Hartley, 2005; Watson & Nesti, 2005). Why do these authors generally champion meditation as a technique for achieving states, rather than a method for inquiry into, and lasting change in, subjectivity? One answer to this question may lie in a particular western perspective towards optimal experience, as well as other phenomena existing solely in the subjective
realm of mental phenomena. This perspective is well articulated by the following statement by Mihalyi Csikszentmihalyi, in the midst of his analysis of the entire “yoga” system – as presented in *Patanjali’s Yoga Sutras*:

The details of how the experience is produced are unique to Yoga, as they are unique to every other flow activity, from fly-fishing to racing a Formula One car. As the product of cultural forces that occurred only once in history, the way of Yoga bears the stamp of the time and place in which it was created. (Csikszentmihalyi 1990, p. 106)

Here, Csikszentmihalyi discounts the possibility that eastern contemplatives have gained any durable, transferable insight into mental phenomena. More substantially, he identifies eastern contemplative activity, primarily, as a set of contextually bound routines meant to induce optimal states - on a par with video-games, car-racing, and fly-fishing (Csikszentmihalyi, 1990). This statement, however, directly contradicts the very text to which Csikszentmihalyi refers (Iyengar, 2002). Many aspects of each contemplative tradition are indeed bound to, and primarily only useful within the context of, a certain culture – just as certain aspects of modern science and sport psychology/philosophy are products of cultural forces. Nonetheless, the assertion that these traditions have nothing more to offer than culturally bound ritual requires much more support than Csikszentmihalyi provides.

Csikszentmihalyi, along with the majority of the sporting community, asserts that flow is contextually bound, induced by either immersion in a physical action (e.g., breathing, sitting, counting, yoga, sporting), or immersion in verbal/image-based thought, and not reliably reproducible, across contexts, through the development of any particular set of skills (Csikszentmihalyi, 1990). In contrast, *Patanjali’s Yoga Sutras* assert that optimal experience is largely dependant upon subjective variables, which can be
manipulated and trained - primarily within contemplative contexts where sensory input and conventional thought forms are not the focus of attention. This process, according to Patanjali, yields reliably reproducible, cross-contextual results (Iyengar, 2002).

Despite this fundamental contradiction, Csikszentmihalyi completes his review of the *Yoga Sutras* without explanation, or even mention, of the differences between his perspective on flow and the Vedic assertions regarding optimal experience. Similar omissions are commonly made throughout the sport literature (e.g., Nideffer, 1992, 1976; Vealey, 2005). And yet that simple assertion, made by Patanjali, is echoed across the full breadth of serious contemplative literature (Bikkhu, 1988/1996; Buddhaghosa, 1999; Chagme, 1998, 2000; Dhammadharo, 1994; Dudjom Rinpoche, 1998; Fuang, Unknown; Laird, 2006; Lamrimpa, 1992; Maha Boowa, 1987; Maharaj, 1981; Maharshi, 2006a, 2006b; Padmasambhava, 1998; Rabten, 2005; Santideva, 1997; Wallace, 2000, 2005a, 2005b, 2006a, 2006b, 2009).

The western understanding of optimal subjective experience as contextually bound seems to have, in many ways, prevented those in sport and performance related disciplines from pursuing, perhaps even conceptualizing, meditation as a cross-contextual training method. A possible consequence of this perspective is the tendency of sport scholars and practitioners to adapt eastern philosophy and principles into sporting contexts, rather than utilizing contemplative methodology in parallel with sport (e.g., Murphy, 1992; Orlick, 2000; Ravizza, 2002). But this perspective has also precluded the use of such meditative methodology for laboratory investigation of optimal experience – an application for which it may be highly ripe. Indeed, some meditative methodologies
have been used intensively for investigative purposes, within their respective traditions, for millennia (e.g., Wallace, 2005a).

This approach is similar, in many ways, to the classical use of introspection within early psychology. The fathers of modern psychology, William James and Wilhelm Wundt, advocated studying mental phenomena directly, through introspective observation – as do many modern psychologists (e.g., Boer, Reinders & Glas, 2008; Depraz, Varela & Vermersch, 2000; Hurlburt and Heavey, 2001; Monson & Hurlburt, 1993; Thomson, Lutz, & Cosmelli, 2005; Varela 1995; Varela & Shear, 1999). The Stanford Encyclopedia of Philosophy states:

You can, of course, learn about your own mind in the same way you learn about others’ minds – by reading psychology texts, by observing facial expressions (in a mirror) examining readouts of brain activity, by noting patterns of past behavior – but it’s generally thought that you can learn about your mind introspectively in a way that no one else can. (Schwitzgebel, 2010 p. 9)

One should note, however, that all of the other listed means of learning about “minds” (i.e. observing facial expressions, brain activity, patterns of past behavior, and text books about such methods) do not observe the mind directly. If one believes there is in fact a mind, or realm of subjective experience to which we alone have some kind of privileged access, one must admit that none of these aforementioned methods of “learning about the mind” actually investigate the mind. They investigate physical correlates.

William James recognized this fact at the dawn of the field of psychology, stating, “Psychology is a natural science,” which served not as a passing statement, but as the heading for an entire section of his magnum opus text, Principles of Psychology. In transitioning to this topic, he stated:
We have now finished the physiological preliminaries of our subject and must in the remaining chapters study the mental states themselves whose cerebral conditions and concomitants we have been considering hitherto. (James, 1980, p. 185)

One of the driving purposes behind this thesis is to further the natural science section within modern optimal experience research. So long as one believes there is indeed a realm of mind, as defined earlier, the necessity of James’ approach is difficult to deny. James, as well as his early colleagues and predecessors, however, were unable to develop highly effective, rigorous, operationalizable methods for engaging with the direct observation of mind. The factions within this early movement were not able to settle the debates at hand or complete the development of their methodologies before other movements, particularly behaviorism, overwhelmed them.

In contrast, within many of the world’s contemplative traditions, some methodologies for training and observing the mind are now thousands of years in the making (e.g., Bodhi, 2002, 2005). These methods and their accompanying theory have been refined by generations of scholars and practitioners, both within and outside of well-established university systems (e.g., Chagme, 1998, Santideva, 1997; Tsongkhapa, 2002). Many significant disagreements over the basic underlying theory of these methods, as well as their standardization and operationalization within any given tradition, were functionally sorted out centuries, or even millennia, ago.

Out of the multitudinous different meditative methodologies available, one is generally considered the most basic. This method, however, is also classically considered the most essential for enabling the cross-contextual effects of contemplative training, as well as effective investigation of mental phenomena. The cross-contextual applicability of skills developed through this practice make it a logical choice for parallel
use in sport and other performance contexts, and for research (e.g., Wallace, 2005, 2006a, 2006b). This methodology is referred to as “shamatha,” “samatha,” “jhana,” “dhyana,” “stabilizing,” “calm abiding,” or “quiescence” meditation, among others, depending upon the tradition and translation. This is a genre of meditation specifically meant to develop one’s attention. The practice is not, in and of itself, a contemplative tradition. Rather, each of the aforementioned terms is simply one particular name for a form of contemplative practice that can be found in nearly all major contemplative traditions – from Christian to Buddhist (e.g., Wallace, 2009).

Training the attention is emphasized in these traditions, primarily, because inattention is the first major difficulty confronted by anyone interested in training or studying the mind (e.g., Laird, 2006; Chagme, 1998, 2000; Deshimaru, 1982; Lamrimpa, 1992; Maharaj, 1981; Maharshi, 2006a, 2006b; Padmasambhava, 1998; Santideva, 1997; Wallace, 2005a, 2006b, 2009). Without training the attention, one’s mind will not be an optimal tool for engaging with the other aims inherent to contemplative traditions - including the development of kindness and compassion, transformative insight, freedom from mental affliction, and the direct investigation and perception of mind’s essential nature.

Shamatha practice is not entirely new to those meditatively inclined scholars and practitioners in sport and performance disciplines. Abridged, largely watered down forms of various quiescence meditation techniques can be found in some eastern-inspired applied sport psychology works, in the form of simple breathing or candle focusing exercises (e.g., Leuchs & Skalka, 1976; Millman, 1999; Murphy, 1992). Indeed, athletes also face the problem of inattention, and those within the psychology of sport have long
recognized that attentional ability can make or break a performer’s career. Some applied practitioners have even stated that attention is the most important factor in achieving excellence (e.g., Orlick, 2000). However, the extant exercises for training attention, within sport and performance psychology, are never presented as yielding progressive levels of accomplishment on the way to a concrete achievement – much less an achievement directly related to enabling optimal experience.

Within eastern contemplative contexts some traditions, such as Zen, give very little instruction in this practice, and express very little expectation of ever reaching a clear completion of it. Other traditions, such as the Hindu Tradition, Theravada, Mahayana, and Vajrayana Buddhist traditions provide instruction in this practice up to relatively astounding levels of refinement (e.g., Maharshi, 2006; Maha Boowa, 2003; Padmasambhava, 1998; Wallace, 2005). For example, in the work of scholar-contemplative B. Alan Wallace, one can find a highly accessible, refined, clear, and rich explanation of shamatha practice. Throughout the course of his fourteen years as a Buddhist monk, his bachelors, masters, doctoral and professional careers -including over thirty years as a serious contemplative under the guidance of qualified teachers - Wallace has been working to understand the cross-cultural implications of shamatha practice, among other practices, and to make its methodology available to the western public. He stresses that this basic practice has been, in many ways, underemphasized in the modern world – largely due to a combination of misunderstandings and the relative unavailability of its requisites for success.

His description of the practice includes a clear explanation of process-oriented goals, as well as a progression of outcome goals in the form of ten stages of
accomplishment - which culminate in a very clear-cut understanding of the actual achievement of shamatha, or balanced attention. His work also includes known effects of the practice – from its beginnings at stage 1, to its culmination at stage 10 – which have been traversed by a great many contemplatives (Wallace, 2005a, 2006a, 2006b, 2009). He also presents the prerequisites for successful completion of this practice, based upon recommendations of experts from a wide range of traditions.

The benefits of shamatha practice, during its initial stages, are very similar to the effects applied sport psychologists have come to expect from eastern interventions, and classic mental skills training, to date. However, the middle and higher stages of practice entail levels of voluntary, optimal engagement which may prove to be unparalleled by current sport psychology techniques. Individuals persevering to the higher levels of shamatha practice are, reportedly, able to consistently reproduce levels of engagement on a par with the deepest of flow states described by researchers (Csikszentmihalyi, 1990; Wallace, 2006b). At such levels of development, reports indicate that the attention is able to be deeply immersed in any chosen activity - just as elite level tennis players, for example, are able to hit tennis balls in any given area of a court. Interestingly, the culmination of shamatha practice also reportedly leaves individuals regularly having the sort of experiences sport mystic Michael Murphy refers to as meta-normal (Murphy, 1992; Murphy & White, 1978, 1995). But this kind of attention, as previously mentioned, also allows practitioners to create a sort of mental laboratory setting - in which mental phenomena may be able to be studied without many of the confounding variables commonly associated with first-person investigation of the mind.
The completion of this practice is generally considered attainable - so long as the conditions for successful practice are met (Wallace, 2006b; Dalai Lama, 2007). Moreover, the fruits of the attentional skills gained during this practice are fundamental, and easily applied to other realms – just as the strength gained through weight training can easily be applied to any given physical endeavor. As a result, while many other eastern contemplative methods require awkward “adaptation” to the western sporting environment, formal shamatha practice itself is ready-made for direct application as a secular performance and well-being enhancing practice – as well as a research tool.

Most eastern-inspired sport scholars and practitioners have, as previously mentioned, either invested their time in adapting practices meant as precursors to shamatha practice, or practices which are generally considered, in most contemplative traditions, to be only partially effective without shamatha practice. Wallace’s extensive work as a contemplative and scholar indicates that, in nearly all well-developed contemplative traditions, the refinement of shamatha is considered essential for full effectiveness in any of the myriad other contemplative practices. The classical role of shamatha practice in most eastern contemplative traditions is so central, that it may well be impossible for the sporting world to truly understand classical contemplative claims - regarding consistent optimal experiences and engagement - without understanding shamatha. It is considered *the* key to attenuating irregularities in one’s day-to-day mental functioning. Perhaps only individuals with an understanding of shamatha practice in hand will be well equipped to understand the broad-reaching, seemingly non-empirical, claims of eastern contemplatives.
Providing adequate support for these assertions, however, requires a great deal of elaboration. First, a review of the current eastern-inspired sport literature, and the traditions upon which it draws, is required. Chapter two is dedicated to this purpose. Such a review will allow for a clearer understanding of the limitations inherent in current interventions, as well as an understanding of the role elite-level attention training plays, within contemplative contexts, in the elimination of mental imbalances. Though a great many scholars and applied practitioners have worked extensively to bring their love of things eastern to the sporting world, much of what has arrived demonstrates very little knowledge of meditative methodology. Few, if any, of the figures in these fields have invested themselves in serious, long-term contemplative training under a qualified teacher. Just as in any field, including the psychology and philosophy of sport and performance, such apprenticeship is considered essential for gaining a functional depth of knowledge with regard to contemplative theory and practice.

The current work has been preceded not only by the author’s five years of independent and formal academic study of religion and contemplative practice, but also four years of relatively extensive guidance in study and practice, including over two years of full-time dedication to practice, under Wallace’s guidance. In all sections of this thesis - but particularly in the fourth, fifth and sixth chapters – I draw heavily upon many instructions received directly from him, in the context of a contemplative student-teacher relationship. Due to the method of transmission, this information is, at times, difficult to reference in classical ways, and so some practically oriented sections of the current work contain few formal citations. The conundrum of bringing this type of contemplative
instruction and experience into a modern, western academic environment is one that has yet to be fully resolved.

Chapter three is dedicated to explaining the methodology and theory behind contemplative attention training – particularly “shamatha” as outlined in the Tibetan Tradition through Wallace’s work. Secondarily, this chapter will also serve to compare the emphases and theory associated with this methodology to those within modern Flow Theory.

The most pronounced guiding purpose of all these chapters, however, is furthering the naturalization of optimal experience inquiry – through the investigation, development and application of shamatha by lay individuals, performers, and researchers. The modern performance, research, and communal environments may be transformed if such individuals begin to conduct rigorous natural research – whether in the context of their own lives or in a traditional laboratory - into the positive psychological effects of shamatha training. With regard to sport and performance related disciplines specifically, the compatibility between contemplative reports on the benefits of shamatha practice, and the explicit goals of these fields, make prospects for applied practice and research exciting. In particular, the essential elements of optimal experience, as identified by researchers such as Csikszentmihalyi, are commonly experienced as outcomes of the training.

For all of these reasons, the second half of this work will be explicitly oriented toward offering an introduction to contemplative attention training, including a basic explanation of its methodology in application, and an explanation of some factors that contribute to its development. Individuals in all fields of study could, by diligently
applying these instructions, begin to gain contemplative experience and apply it to their chosen professions in logical and beneficial ways.

Athletes - particularly elite athletes - represent a population that is highly motivated to refine their mental skill sets, and highly sensitive to the successful outcomes of such refinement. Sport is also a realm in which the outcome is taken seriously enough to warrant intense training, while its teleological foundations are almost always connected to joy and satisfaction. Elite athletes are generally considered a logical western population in which to study excellence, rather than simply average or below-average levels of development. Due in large part to these particular strengths of elite performers, and the nature of sport-related research disciplines, sport is, in many respects, a realm of society with quite appropriate context for shamatha training. The full benefits of shamatha practice, however, will be time-intensive to harvest, and will require rigorous dedication. Nonetheless, this process could be highly worthwhile for those interested in reaching personal and performance excellence. Furthermore, this level of mental training may prove profoundly complementary to the spirit of western vocational commitment to sport, and may also come to represent the first genuinely effective, cross-contextual means of enabling “deep flow”. In order to elaborate on this assertion, the final chapter will be dedicated to offering working hypotheses, regarding the causal antecedents of flow, that may be fruitful for lay individuals, researchers, and serious athletes alike to investigate.

With a solid foundation in shamatha training in hand, and a relatively clear and calm mind, any individual can begin to investigate the causes and conditions conducive to Csikszentmihalyi’s nine essential elements of flow. In the end, direct, rigorous, and
sustained first-person investigation of one’s own mind must be the foundation of any quality efforts to reproduce optimal human experience consistently. Such investigation – whether conducted by researchers in a lab, athletes on the court, or dedicated practitioners working conventional jobs – can yield transformative insights if attention has been honed, along with an ability to observe the mind directly.

The undeniably diverse and profoundly interdisciplinary sub-fields within Kinesiology have worked together to understand many mechanical facets of the body, but those kinesiological sub-fields focused upon the psychology and philosophy of performance have an enormously promising frontier yet to explore: the realm of mental movement. Surrounded by professionals who are rigorously studying – through direct observation and manipulation – the workings of human physical movement, these researchers have not yet begun to follow suit by directly studying and experimentally manipulating the mechanics of mental movement. Due to the private nature of mind, such research can only be done through first-person observation of mental processes – and may be most effective when supported by more classical second and third-person modes of study. The need for such research is clear.

The dynamics of “Mental Movement” are in essence the primary focus of study in Kinesiological Psychology and Philosophy, and the empirical value of these fields could be significantly enhanced by the addition of well-trained observers of mental phenomena. These facts, of course, hold true for all of the modern mind sciences. With a race for the “science of consciousness” underway, Kinesiologists of mind may be able to play an important, if not groundbreaking, role in the broader context of modern science and
philosophy. This dynamic will be revisited primarily in chapter six, once theoretical and applied explanations of shamatha practice have been presented.

At the time of this work’s completion, major new opportunities are arising, which will help make rigorous contemplative training truly accessible to interested athletes and researchers. As of 2010, there will be a fully equipped facility on the island of Phuket, off the coast of Thailand, for individuals wishing to engage in such training.

The Phuket Academy will also have Olympic level athletic training facilities for swimmers, tennis-players, runners, cyclists, tri-athletes, and soccer/football players – in addition to a weight-training facility. In this environment, athletes interested in rigorous mental training will be able to continue their athletic endeavors for any given period of time, while receiving instruction directly from Wallace and other qualified contemplative teachers, through the mental training branch of this academy: The Phuket Mind Training Academy.

Until now, a major roadblock for athletes interested in serious contemplative training has been finding a place where they can receive quality instruction - in an environment where such training can be highly fruitful - while at the same time successfully continuing their athletic training. With the completion of the Phuket Academy in 2010, this enormous roadblock will finally be removed.

Furthermore, that same roadblock has prevented truly rigorous scientific research from taking place in this area. The Phuket Mind Training Academy, however, will house a relatively well-equipped laboratory for conducting scientific research. The lab will be fitted with full-scale EEG equipment, as well as all materials needed for running athletes through cognitive tasks, and other quantitative and qualitative measures. Additionally,
this lab will be available for any researchers, who have their own funding and athletic participants, to come and conduct research on the effects of serious contemplative practice in athletic populations. Finally, these research facilities may provide an opportunity for Kinesiologists to begin constructing subjective laboratories of their own, in which the causal antecedents and essential elements of optimal experience, as well as many other facets of Mental Movement, could be studied directly.
BIBLIOGRAPHY


SECTION I:

THEORY
Chapter 2: Review of Meditative Literature in Sport and Performance

“You impose limitations on your true nature…Then you take up this or that practice to transcend the nonexistent limitations. But if your practice itself assumes the existence of the limitations, how can it help you to transcend them?”

-Ramana Maharshi in *Essential Teachings of the Maharshi*

Members of the sport community, for some decades now, have been ever further acknowledging the startling philosophical and phenomenological similarities between flow, as well as other peak experiences in sport, and eastern contemplative experience (Abe, 1986; åO & Falkner, 1984; Blackburn & Jorgenson, 1976; Cooper, 1998; Csikszentmihalyi, 1974, 1975, 1990; Csikszentmihalyi & Jackson, 1999; Deshimaru, 1982; Douillard, 1994/2001; Gallwey, 1997; Garfield & Bennett, 1984; Hendricks & Carlson, 1982; Hirata, 1973; Huang & Lynch, 1992; Hyams, 1979; Jackson & Delehanty, 1995; Leonard, 1990; Millman, 1984, 1999; Murphy, 1977, 1992, 1997; Murphy & White, 1978, 1995; Nideffer, 1985, 1992; Orlick, 2000; Porter, 1978; Ravizza, 2002; Rohe, 1974; N. J. Watson & Nesti, 2005; Wertz, 1977, 1991). Indeed, the two groups of phenomena are highly similar. But which contemplative practices produce these similar results, and why? How do they create such experiences? Do the traditions, or more importantly, the methods themselves have cross-contextual applications? Put another way, are contemplative methods utilized to generate “altered states” embedded in the context of meditative practice, or are they meant primarily to develop broadly applicable skills? Despite the poignancy of these questions for eastern-inspired sport practices, they are rarely addressed within sport literature.
From a contemplative perspective, sport literature with eastern influences, in its current form, may represent a decidedly limited presentation of meditative methodology and theory. A myriad of meditative techniques exist within each of the many contemplative traditions, each of them intended to yield a different psychological outcome, with many of them dependent upon others for success (e.g., Bodhi, 2002, 2005; Iyengar, 2002; Keating, 2001; Sekida, 1976; Tsongkhapa, 2002; Wei-an, 2000). Furthermore, the final goal of each tradition, as well as all component contemplative goals, can be defined vastly differently from discipline to discipline.

As Watson and Nesti (2005) point out, offering workable definitions within the “notoriously difficult to define” realm of religion and spirituality is important. The extant sport literature, however, does not yet yield workable definitions of contemplative techniques, or place any such technique in the context of a particular tradition or methodology. This oversight can be seen in the current definitions of meditation available in extant literature, usually similar to the following:

Meditation is an ancient technique used to quiet the mind, allowing one to get in touch with his/her inner wisdom. It is a moment of attentive focus on the innermost part of self, in which resides one’s spiritual being. Meditation is a way to help one to center and become more attuned to his/her inner self. (Viet-Hartley, 2005, p228)

Such definitions do not lend themselves to operationalization, and ignore the vast range of meditation techniques and their highly specific purposes. The phrase, “meditation is an ancient technique” implies that there is only one form of meditation, and then further implies that this singular “technique” is used only for “quieting the mind,” which allows one to commune with “inner wisdom.”
From the perspective of most contemplative traditions, such assertions may be seen as oversimplifications and thus counterproductive. These sentiments are, however, echoed by perhaps the most published and widely read scholar in this niche, Michael Murphy, who states the following in his book *In the Zone*:

The specific method you use is less important than faithfulness of practice. Whether you simply attend to your thoughts, count breaths, repeat a prayer, or focus on a point, the important thing is persistence. Two sessions a day – one in the morning and another in the afternoon or evening – will have their effect if you are patient. (Murphy & White, 1995, p152)

Perspectives such as Murphy’s, while portraying an accurate attitude toward meditative training and implying its lasting cross-contextual effects, do not equip readers with any specific, workable method or explanation. For example, certain meditation practices are designed to train insight specifically, and others are structured to enable calm attentiveness – each subtly different from the other, and each accompanied by its own extensive theory, methodology, and progression (e.g., Chagme, 2000; Dudjom Rinpoche, 1998; Keating, 2001; Laird, 2006; Maha Boowa, 1987; Maharaj, 1981; Maharshi, 2006a; Matt, 1990; Merrell-Wolff, 2003; Wallace, 2005, 2009).

Additionally, each contemplative tradition that includes both insight and calm attentive exercises yields recommendations about which of these two practices should be engaged with before the other. Descriptions such as those cited above, however, do not reflect these nuances. Due to similar understandings of meditation, many within the scientific and philosophical communities have dismissed presentations of meditative claims on the grounds that they are homogenously ambiguous and based upon faith (e.g., Dennett, 1991; Flanagan, 2002; Searle, 1992). Others, who have come to rely upon meditation as an intervention, appear to believe the practice is useful only for its
“residual” relaxation effects, rather than for developing cross-contextually applicable cognitive skills (e.g., Franklin, 2001; Garfield, 1984; Griffiths et al, 1981). From the perspective of contemplative traditions themselves, such statements reflect a lack of knowledge regarding appropriate theory, methodology, or explanation of what to expect during the serious practice of any specific meditative discipline (e.g., Buddhaghosa, 1999; Sekida, 1976; Tsongkhapa, 2002).

Highly developed meditative traditions offer specific advice for identifying, exploring, and intentionally re-training mental habits during meditation (Buddaghosa, 1999; Laird, 2006; Maha Boowa, 1987, 1988; Sekida, 1976; Wallace 2005, 2006b). Of all the practices offered for such purposes, the training of attention is consistently considered the most basic, and often seen as a prerequisite – in varying degrees - to engaging with other formal contemplative practices (e.g., Chagme, 1998, 2000; Laird, 2006; Keating, 2001; Lamrimpa, 1992; Maharaj, 1981; Maharshi, 2006a, 2006b; Padmasambhava, 1998; Santideva, 1997; Sekida, 1976; Wallace, 2005a, 2006b, 2009). In most native Indian traditions, attention refinement practices are referred to as *shamatha, samatha, dharana, dhyana, jhana,* or *samadhi* – depending upon sect, language, and interpretation. In Zen Buddhism, the early breath-focused stages of *Zazen* often serve this function (Herrigel, 1974; Kapleau, 1989/200). The Indian training system of Yoga includes these practices under the category of *dharana* and *dhyana* (Basu, 1914; Bikkhu, 1988/1996; Iyengar, 2002). Beginning with ancient Indian Vedic practice, on up through to modern day Hinduism, present day Buddhism, and the Taoist traditions, attention practices, in their varying forms, have been ever further refined, explained, and enriched by thousands of dedicated practitioners.
The majority of these varying traditions present a range of techniques and meditative objects for practice. The theory, method and general progression of practice, however, are often recognizably similar - regardless of technique and tradition. One of the most common elementary goals of such practices is to refine attention until the mind can be perceived, and investigated, without distraction from thoughts and sensory stimuli (e.g., Iyengar, 2002; Laird, 2006; Lamrimpa, 1992; Padmasambhava, 1998; Maha Boowa, 1987, 1988; Sekida, 1976; Wallace 2005, 2006b, 2007, 2009). According to many of these traditions, higher levels of success in that task result in sustained, voluntary, extended, and direct perception of what is generally translated as the “substrate consciousness,” “seed consciousness,” “ground of becoming” “storehouse consciousness” or something similar (e.g., Bodhi, 2002, 2005; Buddhaghosa, 1999; Kapleau, 2000; Wallace, 2005, 2009). This substrate consciousness is unique to the individual (i.e., in its active state it yields individualized mind-streams and perspectives on sensory input), but at the time of pacified conception it is devoid of any signs of individuality. Rather, this ground state of consciousness or “ground of becoming,” when perceived steadily by elite-level attention, is experienced simply as undifferentiated bliss, luminosity, and nonconceptuality (Lingpa, 2004; Padmasambhava, 1998; Wallace 2005, 2006, 2007, 2009).

Furthermore, while the substrate consciousness is sometimes understood as an ontological commitment of engaging in eastern practice (Kleinman, 1986; S. B. Watson, 1986) it should – like many other contemplative assertions - more accurately be understood as an empirical observation, dependant upon the development of highly refined attention (e.g., Iyengar, 2002; Wallace, 2006a). Wallace (2009) asserts that this
notion is supported by a diversity of traditions, each of which has discovered and documented the existence of such a substrate consciousness. Furthermore, this sustained, repeatable, and empirical observation is considered an absolutely essential aspect of attention training practice, and an important sign that one has attention suitable for firmly rooted and voluntary control over optimal immersion in any given active task (Wallace; 2005; 2006b; 2009). Once an adept is able to perceive the substrate consciousness with highly refined stability and vividness over a period of at least four hours, the adept is likely to have almost entirely eliminated even their most subtle tendencies for distraction in all tasks. Attention at this level of refinement, or greater, is considered foundational in producing the many contemplative accounts regarding voluntary control over flow and peak experiences – the sort often quoted within eastern-inspired sport works (e.g., Buddhaghosa, 1999; Lamrimpa, 1992, Wallace, 2006b). As with any other elite-level task, this depth of skill requires thousands of hours of training for development (Wallace, 2006b).

As previously mentioned, a great many eastern-inspired practitioners in the sport-related fields have harnessed accounts of such contemplative practice, encouraging athletes to “let go,” “act without thought,” and work toward experiencing “union of self and action,” and “no mind,” while pointing out the parallels between these accounts and optimal, peak or meta-normal experiences in sport (e.g., Abe, 1986; Back & Daeshik, 1979; Cooper, 1998; Gallwey, 1992; Garfield, 1984; Herrigel, 1981; Huang and Lynch, 1992; Leonard, 1990; Leuchs & Skalka, 1976; Millman, 1999; Nideffer, 1992; Orlick, 2000; Porter, 1978; Rohe, 1974). However, none of these figures has located classical attention training practice amidst the large backdrop of eastern contemplative tradition, or
accurately portrayed the dedication it requires. More importantly, none of these figures has provided an account of the methods, ends, theory, and level of practice required to actually achieve the contemplative, primarily attentional, ends they mention. From a contemplative perspective, they have not properly equipped their audience to pursue the levels of mastery presented to them. Instead, these authors have, generally, presented contemplative perspectives as philosophical orientations towards tasks - without the extensive theory and emphasis upon practice that accompanies them (Abe, 1986; Back & Daeshik, 1979; Cooper, 1998; Gallwey, 1992; Garfield, 1984; Huang and Lynch, 1992; Leonard, 1990; Leuchs & Skalka, 1976; Millman, 1999; Nideffer, 1992; Orlick, 2000; Porter, 1978; Rohe, 1974).

From the perspective of the traditions – sometimes even the very sources – from which these authors draw, the presentation of such philosophy is not considered sufficient to extensively habituate lasting, functional changes in one’s attention and yield consistent, cross-contextual, optimal engagement (e.g., Deshimaru, 1982; Herrigel, 1981; Sekida 1976). Additionally, a purely philosophical outlook - with no foundation in meditative method - generally yields an understanding of meditation as a contextually, or even culturally, isolated form of training, which ignores the highly empirical nature of these practices.

Some practitioners, however, have offered techniques similar to those used within contemplative traditions, but with highly important subtle variations – variations that undercut the cross-contextual application of the practice (Douillard, 2001; Gallwey, 1992; Garfield, 1984; Huang and Lynch, 1992; Leonard, 1990; Leuchs & Skalka, 1976; Millman, 1999; Nideffer, 1992; Orlick, 2000; Porter, 1978). Such approaches lack
knowledge of how these practices progress, what they progress toward, and also lack knowledge of the relatively subtle instruction required to make significant progress. Both of these limitations – utilizing an eastern philosophical approach only, or using a philosophical approach in conjunction with only simple techniques that are bereft of rich method and theory – have created a marked discrepancy between the purported goals of eastern-inspired sport practices, and the results of those practices.

In the pages that follow, these limitations will be identified and explained in greater detail. In order to accomplish this goal, the body of eastern-inspired sport work has been divided into three primary, somewhat overlapping, categories. The first category is work inspired by Zen Buddhism, and the eastern disciplines stemming from or similar to it (Martial Arts, Taoist approaches, etc.) The second category is that of broader work, which usually draws upon Ancient Indian thought in addition to Zen – most notably on the physical disciplines within Hatha Yoga. Lastly, empirical work on meditation in sport is reviewed and critiqued.

i. Zen Inspired Sport Literature

"A monk once asked his teacher, 'What is the fundamental teaching in Buddhism?' The Master replied 'Attention'. The student, dissatisfied with the answer said, 'I wasn't asking about attention, but was wanting to know the essential teaching in Buddhism.' The master replied, 'Attention, Attention, Attention.'

-Classic Zen Buddhist Story (Pannyavaro, 1993)

Jackson & Delehanty, 1995; Nideffer, 1976, 1985, 1992; Orlick, 2000; Rohe, 1974; Stone, 1981; Vealey, 2005). Though the Zen tradition includes extensive theory and practical knowledge, the vast majority of Zen meditative literature and Zen meditation instruction tends to be cryptic, by western standards, and requires intensive experiential investment for basic practical understanding. As a result, sport and performance-related use of the Zen contemplative tradition, as a primary contemplative resource, may have hindered the development of contemplative understanding in these disciplines – particularly because the Zen tradition has been utilized primarily for textual sources rather than experiential training.

Some works in this category, though cited in the field as Zen and sport texts, do not mention Zen outside their titles and introductions (Blackburn & Jorgenson, 1976; Rohe, 1974). However, the vast majority of these works focus upon Zen, even explicitly or implicitly define Zen, as a philosophy – generally a philosophy that emphasizes, “action with awareness, being completely in the present moment” (Watson & Nesti, 2005, p234), or, in some other terms, emphasizes oneness of purpose and total immersion in the task at hand (Abe, 1986; Back & Deaesik, 1979; Becker, 1982).

According to advanced Zen practitioners, however, Zen is primarily a practice - a method - and not a philosophy (Herrigel, 1953/1981, 1974; Kapleau, 1989/200; Sekida, 1976). Most Zen teachers emphasize that dedication to formal meditation is essential, in order to gain any significant benefit from Zen philosophy. (Herrigel, 1974; Kapleau, 1989/200; Sekida, 1976). The now popular purely philosophical perspective on Zen may have begun with Alan Watts’ work The Way of Zen, which, in addition to being widely-read and frequently cited within the sporting community, introduced Zen as, “the unique
Oriental philosophy which shows how to live with serenity and fulfillment in a frustrating and confusing world.” (Watts, 1957). Or, perhaps a largely philosophical perspective on Zen took root because it is simply easier to introduce a philosophy, rather than a transformative and holistic practice, into someone’s life – particularly when the practice is almost entirely subjective in nature, and thus somewhat foreign to the conventional western perspective on objectivity.

Some works in sport introduce Zen as a method – usually offering a definition along the lines of, “… a focus method that emphasizes that you should be one with your activity. Zen is about being wholly there, totally present, and automatically connected with the activity you're doing” (Vealey, 2005, p254). Such works generally go no further in their explanation of Zen method than mentioning that it entails, “becoming aware of the thoughts that run your life and diminish[ing] their power over you” (Jackson & Delehanty, 1995, p49). The reader is then advised that this practice generally consists of avoiding the tendency to, “reflect, deliberate, question, condemn, or judge along the way [which causes you to] lose your pure connection or become disconnected, apart from, separate, tentative, distracted.” (Orlick, 2000, p156). These admonishments are generally accompanied by explanations of the sword or archery based Zen traditions, the achievements of masters within them, and the implication that readers can reproduce these accomplishments in their own endeavors simply by adhering to the presented maxims (e.g., Abe, 1986; Hirata, 1973). This approach, again, contradicts the long-term orientation toward meditation and applied Zen practice championed by the very sword or archery based Zen practitioners referenced (e.g., Deshimaru, 1982; Herrigel, 1981, 1974).
Some Zen-based works, however, emphasize centering techniques and kinesthetic focusing exercises in addition to philosophy and simple maxims, allowing individuals to begin developing their awareness of themselves in and out of the sporting environment (Hyams, 1979; Nideffer, 1985, 1992). These exercises have been used, in such works, to teach athletes to generate a temporary heightening of bodily awareness through simple kinesthetic mindfulness exercises, as well as impressive changes in perceived centers of gravity through “centering” exercises – both of which result in short periods of self-regulation through breathing techniques. As articulated by Robert Nideffer, however,

…centering is simply a brief time out that gives you momentary control over concentration and tension. To remain in control after centering, you must quickly get involved in the activity. Then, as you have time to think while actually performing…and as the pressure builds, so, too, does the need to center again. (Nideffer, 1985, p67)

Centering and the related breathing or kinesthetic exercises, given the results they yield, may best be considered short-term methods of inducing “altered states” - much like a highly ephemeral, no-cost relaxation drug. Altered states are “altered” simply because they are entirely separate from one’s normal experiences, and are “states” because they are ephemeral, transient, or generally not deeply rooted in one’s way of being. If such techniques, as they are presented within the sport literature, actually lessened mental imbalances themselves, then their practice would, over time, allow athletes to experience less attentional imbalance while performing and to experience less pressure across all contexts.

Instead, as Nideffer points out, the need for these centering techniques tends to remain constant in application - perhaps because centering simply treats the symptoms of mental imbalances rather than confronting and eliminating the imbalances themselves. In
fact, authors who utilize centering generally emphasize that the goal of this practice is to
develop more regular centering habits, rather than to make one’s mind fundamentally
calmer and less discursive (Hyams, 1979; Nideffer, 1985, 1992). Therefore such
techniques, offered in this form, may not be part of a practice that leads towards lasting,
fundamental change (e.g., Lamrimpa, 1992; Sekida, 1976; Wallace, 2006b).

Similar problems may apply to more extensive eastern-adapted sport mental
training programs, such as those recommended by Chungliang Al Huang and Jerry
Lynch. Perhaps their most well known work is the sport classic Thinking Body, Dancing
Mind (1992). In this text, Huang and Lynch offer centering exercises, breathing
exercises, simple focusing exercises such as “candle staring,” and visualization practices
– all of which are combined with philosophical background and reflection to combat a
wide array of adversities found in sport, business, and life at large. Though all of these
approaches are common to the previously mentioned sport works, and to the sport
psychology literature in general, the techniques in Thinking Body, Dancing Mind are
presented in “meditation” format, and in conjunction with Taoist philosophical
approaches.

Despite the eastern emphasis, these techniques, as with those presented in non-
eastern sport psychology contexts, could, from a contemplative perspective, also be
considered short-term fixes, and not as long-term transformative practice (e.g., Laird,
2006; Maharshi, 2006b; Padmasambhava, 1998; Pannyavaro, 1993). Huang and Lynch
seem to have overlooked the contemplative perspective on attention, stating:

We all have varying degrees of concentration. But with the Beginner’s mind,
visualization and meditation processes can train you to develop greater powers of
attention. No one can maintain this state for very long periods of time, but you
can learn to focus to provide yourself with the proper mental environment to develop your athletic skills rapidly. (Huang & Lynch, 1992, p61)

From the perspective of traditional Zen and Taoist contemplative attention training, this statement is simply incorrect (Kapleau, 1989; Sekida, 1976; Tzu, 1961/2000; Wallace, 2005). Such traditions explicitly state that sustained voluntary attention is required for success in spiritual pursuits. However, Huang and Lynch do not reference this level of contemplative training in their work or make its potential clear.

Instead, they proceed to explain that long-term sustained attention is unnecessary, and that one should, due to the strain of attending to a given activity, take breaks from immersion in activity, at all stages of development in one’s career, in order to side-step this problem (Huang & Lynch, 1992, p62). Within contemplative mental training, breaks are certainly needed throughout the process of honing one’s attention - particularly during the early stages where tiring effort is required. However, as one progresses in the later stages of attention training, and after one completes the training, sustained attention is reported to become so relaxing that it is perceived as blissful, and can be continued easily, quite enjoyably, for extended periods (e.g., Buddhaghosa, 1999; Bikkhu, 1996; Lutz et al, 2008; Wallace, 2005, 2006b).

This difference in perceived exertion between the ability gained through contemplative attention training, and the attention ability provided by more conventional techniques like those shared by Huang and Lynch, is a major demarcation between the two approaches. Though the sport mental training tradition emphasizes “relaxed focus,” it is clear that, with the exception of rare peak experiences, athletes must use intense effort to elicit effective concentration in accord with conventional mental training methods (e.g., Huang & Lynch, 1992; Orlick, 2000; Ravizza & Hanson, 1995; Vealey,
In contrast, the product of serious contemplative attention training is an ability to maintain focus effortlessly, as if one’s voluntary attention has a “gravity” holding it to the chosen task (Wallace, 2006a, 2006b).

This difference may exist because techniques found in works such as Thinking Body, Dancing Mind are not geared towards training basic human faculties over the long term - at least not according to contemplative traditions. Subsequently, such techniques may create very little of the lasting, fundamental change pursued and promoted by contemplative masters. Many in the applied sport psychology community would agree that, rather than enabling fundamental change through these practices, an athlete learns the skill of regularly setting goals before seasons, of regularly reminding themselves of their motivation, or even refocusing with the breath, cue words, and using imagery to prepare for competition, and so forth (e.g., Vealey, 2005).

Huang and Lynch, along with many of the other eastern-interested minds of sport previously mentioned – such as Phil Jackson, Robert Nideffer, Terry Orlick and others – have undoubtedly, through their extensive work with athletes, benefited many. However, the discrepancy between what such practitioners present, and what the respectively mentioned contemplative traditions have to offer, is significant. These practitioners often cite descriptions of contemplative masters, or reference the philosophical orientation of a given tradition, and then associate its fruition with their own techniques - or, as with Huang and Lynch, perhaps underestimate the seriousness of its claims (e.g., Nideffer, 1992, 1985; Orlick, 2000). According to the contemplative traditions from which these practitioners draw, those who have made serious contemplative headway in attention training gain extensive voluntary control of their full range of attentional and emotional
faculties, such that they are able to voluntarily remain blissfully calm and intelligently immersed. Such adepts are, reportedly, able to optimally experience a wide range of tasks, voluntarily - from the most life-threatening (e.g., fatal sword fight engagements), to the most boring challenges presented to them (Deshimaru, 1982; Lhalungpa, 1979). The athletes trained by these authors, in contrast, may enjoy some target activities to a much greater degree, and, on occasion, reach intensely immersed states. The difference in stated intent, and recorded effect, is marked.

ii. Broader Eastern Inspired Sport Works

The majority of works in this expanded body of literature focus primarily upon the physical training methods within Zen-related martial arts traditions, and on the physical training tradition of Hatha Yoga (Hendricks & Carlson, 1982), with a few notable exceptions (Murphy, 1977, 1992; Murphy, Donovan, & Taylor, 1997; Murphy & White, 1978, 1995). Additionally, this wider body of work includes at least a few fictional works which hint at the exciting prospects of contemplative achievement in sport, but present very little, even sometimes inaccurate, explanation of its path and fruition (Millman, 1984; Murphy, 1997).

The primary result of this literature is an array of suggestions for sport which are highly similar to those previously reviewed in the more Zen based works - including centering, candle focusing, breathing techniques, and so on – all of which are subject to the previous critiques (Garfield & Bennett, 1984; Hendricks & Carlson, 1982; Millman, 1999).
While exercises such as candle staring can be found among the “external” practices used for preliminary cultivation of attention within eastern contemplative tradition, they are not among the most highly recommended, and require qualified guidance in order to promote progress beyond relatively early levels of achievement (Buddhadasa 1976; Buddhaghosa, 1999; Iyengar, 2002; Evans-Wentz, 2000; Wallace, 2006b). According to many contemplatives, one requires this guidance because, after a certain amount of progress, one’s attention becomes so honed that sensory objects become insufficient vehicles for further refinement. With careful contemplative guidance at this reasonably advanced juncture, one must shift to focusing upon a spontaneously arising mental object. This transition is not mentioned within the sport psychology literature. It is, however, clearly identified by the those traditions which have made extensive, elite-level use of such techniques (Buddhadasa, 1996; Brahm, 2006; Buddhaghosa, 1999; Buddhadasa, 1976; Chagme, 1998; Iyengar, 2002; Maha Boowa, 1987, 1988; Sayadaw, 2000; Wallace, 2005, 2006a).

The use of Transcendental Meditation (TM), most notably mentioned by Robert Nideffer (1976), is also lacking helpful articulations of the progress gained through appropriate practice. Furthermore, the use of mantra within contemplative practice is generally viewed as more of a reprieve from meditation than as meditation per se (Chagme, 1998, 2000; Iyengar, 2002; Maha Boowa, 1987, 1988; Padmasambhava, 1998). More specifically, TM may be yet another contextually bound endeavor, subject to the very same limitations of other means for producing “altered states”, because it’s effects require the sustained repetition of one’s chosen manta. Some contemplatives argue that mantra repetition may actually hinder progress toward the advanced stages of attention.
training (e.g., Padmasambhava, 1998). The effects of TM have also been brought into question by many in the scientific community due to the low quality of initial research conducted on the technique, and the possibly confounding funding affiliations common to this work (e.g., Canter, 2004).

Donald Porter who, in his book *Inner Running*, attempts application of meditation techniques in the running environment, faces similar difficulties. Utilizing several simple techniques, without formal meditative guidance, he asserts that one can turn running into a “powerful meditation” (Porter, 1978). He offers a much more extensive array of meditative techniques than found in other works, but is subject to the previous contemplative critiques regarding contextual limitation – similar to candle staring (Buddhadasa, 1996; Brahm, 2006; Buddhaghosa, 1999; Buddhadasa 1976; Chagme, 1998; Maha Boowa, 1987, 1988; Sayadaw, 2000; Wallace, 2005, 2006a). Running is an activity even more coarse and complex than candle-staring – involving generally globalized attention to large areas of the body - and therefore will, according to many contemplatives, inevitably have a very low ceiling on its potential for refining the core component faculties of attention (Buddhadasa 1976; Buddhaghosa, 1999; Iyengar, 2002; Evans-Wentz, 2000; Wallace, 2006b). Based upon the advice of advanced meditation practitioners in the aforementioned traditions, focusing attention on the global activity of the body is not likely to yield an understanding of the nuances of mental processes, or effectively train them.

W. Timothy Gallwey may be the most widely read proponent of this technique genre in sport, and is often referred to as a key figure within the eastern inspired literature. Of all the texts cited in this broader category, it is unlikely that any have
received more recognition for adapting meditation techniques to sporting environs than Gallwey’s – particularly his famed work *The Inner Game of Tennis*. While Spencer K. Wertz describes this text as “pure Zen,” and others attribute to Gallwey a genius for adaptation of meditative techniques to the sporting environment, Gallwey himself denies any such claims (Kleinman, 1986; Porter, 1978; N. J. Watson & Nesti, 2005). In the introduction to his newly revised version of the classic text, he states:

I have read too little in the fields of either Eastern philosophy or Western psychology to claim the Inner Game methodology has a foundation in either of these disciplines….For the most part, the Inner Game grew out of my day-to-day observations of my students’ learning process….I have wanted to make it very clear to readers that my work in the Inner Game has nothing to do with mysticism or spirituality… (Gallwey, 1997, p xiv)

With this statement in mind, the focus upon Gallwey’s work as a key link between the world of Eastern contemplative tradition and the western sporting tradition seems misplaced (Kleinman, 1986; Porter, 1978; N. J. Watson & Nesti, 2005; Wertz, 1977, 1991).

Gallwey’s philosophical assertions about task engagement are indeed compatible with many eastern contemplative traditions. For example, his assertions about self 1 and self 2 fit quite nicely with contemplative assertions about the role of one’s thought processes and ego, and their hindrance to one’s creative, highly powerful engagement potential (Gallwey, 1997; Rabten; 2005). Additionally, his rich explanations regarding technique pertaining to “letting” things happen as opposed to “making” them happen are entirely in line with many contemplative assertions (e.g., Kapleau, 2000; Sekida, 1976; Chagme, 1998, 2000; Dhammadharo, 1994). These simple concepts, and many of the others Gallwey discusses, such as “performance = potential – interference,” could, from a contemplative perspective, have some application across contexts – if very diligently
applied. However, from the perspective of serious, professional-level contemplative practices, Gallwey’s own methods fall far short of efficiently, deeply training cross-contextual skills. Metaphorically, Gallwey’s techniques may forsake the contemplative entrée for the hors d’oeuvres. Gallwey’s “bounce-hit” and other discursive methods, along with his means of developing awareness of task-specific cues, as useful as they may be, would be considered of limited cross-contextual value by most contemplatives (e.g., Buddhaghosa, 1999, Bikkhu, 1996; Chagme, 1998; Dalai Lama, 2003; Lingpa, 2004; Sekida, 1976). Gallwey himself is very aware of these relative limitations, and admits such shortcomings in several of his books. One example is the following statement, found in *Inner Skiing*:

> For those readers interested in seeking ways to a more permanent breakthrough experience…it would not seem right to leave the impression that either skiing or the principles of Inner Skiing per se could give them complete satisfaction….The breakthroughs on the slopes are only intermittent indications of far greater experiences attainable by skiing the ‘inner slopes’. (Gallwey, 1977/1992, p189-190)

Furthermore, Gallwey advises readers that, “Beyond the barriers of Self 1, inner and outer merge and it becomes possible to live in a changing world while being fully aware of the core which does not change” (Gallwey, 1977/1992, p190-191). He also hints that skiing the “inner slopes” is from an “Inner Game Perspective,” something that could require much more powerful change than his techniques, or any sport, can provide.

With regard to the levels of expertise gained by serious contemplatives, Gallwey himself makes it clear that his techniques do not offer such levels of accomplishment.

The remainder of works in this category are different in style but similar in method. Most all of them rely upon physical techniques within the Hatha Yoga tradition, in addition to Ancient Indian and Zen philosophical background, for improving the
quality of experience within sport and other performance activities (Douillard, 1994/2001; Leuchs & Skalka, 1976; Ravizza, 1978, 2002; N. J. Watson & Nesti, 2005). For example, Ravizza (2002) has utilized asana practice in Yoga to give athletes an opportunity for uniting physical, emotional, and mental aspects of performance in order to create a sense of purpose that he refers to as “spiritual.” He then connects this spiritual sense of purpose with Zen philosophy to create a form of performance and life enhancement, emphasizing the Zen maxim of “letting go” of one’s ego, and engaging in the delicate balance required for gaining effortless control. The fact that these achievements are required, in order to achieve peak levels of engagement, is explicit in his discussion (Ravizza, 2002).

However, Ravizza’s approach, from a contemplative perspective, does not provide the where-with-all required to engrain these antecedents for consistent peak levels of experience and performance or truly lasting, deep change in an individual’s mind. Indeed, Ravizza’s other writings make it clear that he does not believe such feats to be possible (Ravizza, 1978, 1977, 1995). He states that athletes cannot expect to have flow, or peak experiences, with much regularity at all, and that mental skills - which he generally asserts are meant for both “blocking out” and altering one’s thoughts - are meant to help athletes play reasonably during the remainder of athletic engagements (Ravizza & Hanson, 1995).

On the other hand, the very Vedic tradition from which Ravizza draws much of his inspiration states clearly that one of its primary purposes is to enable voluntary control over optimal levels of immersion and experience (e.g., 1914; Iyengar, 2002; Yogananda, P, 1995a, 1995b). Furthermore, in contrast to Ravizza’s suggestions, the
Yoga tradition places an emphasis upon changing one’s relationship to thoughts at large, rather than attempting to control or alter the thoughts themselves (Iyengar, 2002). This is a subtle point, which will be treated in greater depth throughout the subsequent chapters. Nonetheless Ravizza draws his conclusions, regarding optimal mental engagement, without actually drawing upon the methodologies within Yoga most related to them: the subjective training of attention (i.e., Raja Yoga). Rather, he draws exclusively – at least in print media – upon the philosophical and physical aspects of Yoga. This oversight is common to other authors in this category as well.

Douillard (2001) for example, uses his extensive experience with Yoga asana practice, along with study and training in the systems of nutrition, body-typing, and breathing (pranayama) within the Yoga tradition, to offer performance enhancement suggestions of his own. In kind, Leuchs and Skalka (1976) take a similar approach. Despite the all-around quality and success of some of these intervention programs, they leave - within the context of the Yoga tradition - the most applicable training methods and theory untapped. B.K.S. Iyengar, perhaps the most revered teacher of yoga in the modern era, makes clear in his own work that the practices utilized by these authors are simply preliminary to the practice of contemplative attentional refinement – in very much the same way that Archery practice is preliminary to serious zazen practice within the Zen tradition. Regarding such practices, Iyengar defines Yoga much more broadly as

…restraint of fluctuations in the consciousness. It is the art of studying the behavior of consciousness, which has three functions: cognition, conation or volition, and motion. Yoga shows ways of understanding the functioning of the mind, and helps to quieten their movements leading one towards the undisturbed state of silence which dwells in the very seat of consciousness. Yoga is thus the art and science of mental discipline through which the mind becomes cultured and matured. (Iyengar, 2002, p50)
Within this system for refinement, Iyengar, and the original text of *Patanjali’s Yoga Sutras* itself – perhaps the most foundational text within the modern yoga tradition – clearly state that nutrition, body-typing, and practicing physical postures is, unquestionably, only the beginning of the process described above (Iyengar, 2002). Such practices are described, rather, as the “initial sheaths” of Yoga, a fact that is implied also in the Ancient Indian *Upanishads*, and still clearer in the *Baghavad Gita* (Basu, 1914; Unknown, 2000; Yogananda, 1995a, 1995b). Within these texts, and other primary resources within the tradition, it becomes clear that *raja yoga*, or sitting meditation, and not *asana* yoga practice is the key to accomplishing the “restraint of fluctuations in the consciousness” described by Iyengar. Furthermore, within these explanations one finds the very same description of attention refinement given at the outset of the current chapter – a description, again, entirely absent from the sport mental training literature.

Nonetheless, one can easily see why the physical, more objective methods within the Yoga tradition, and the Zen tradition as well, have drawn so much attention in the world of sport. These methods represent means that are thoroughly compatible with the physical endeavors of sport, and therefore their benefit may seem, in comparison to sitting meditation, much more applicable to sport-related mental training. Furthermore, the need to contextualize any contemplative practice within it’s area of application – physical endeavors in general, and sport in particular – is a prominent theme within eastern-inspired sport literature (ãO & Falkner, 1984; Cooper, 1998; Csikszentmihalyi, 1990; Csikszentmihalyi & Jackson, 1999; Gallwey, 1997, 1998, 2000; Garfield & Bennett, 1984; Huang & Lynch, 1992; Kleinman, 1986; Leonard, 1975; Leuchs & Skalka, 1976; Millman, 1999; Wertz, 1977, 1991). It seems that, generally, subjective
training techniques are viewed as ineffective when not tailored to the activities for which one is training, and thus true contemplative methodology is generally considered, at best, of questionable value.

Nowhere can this perspective be seen more clearly than in the writings of Mihalyi Csikszentmihalyi, the scholarly “father of flow,” and a figure with enormous influence in the fields of sport study. Csikszentmihalyi clearly discounts the assertion that one could, through contemplative inquiry, make fundamental changes in cross-contextual engagement.

The details of how the experience is produced are unique to Yoga, as they are unique to every other flow activity, from fly-fishing to racing a Formula One car. As the product of cultural forces that occurred only once in history, the way of Yoga bears the stamp of the time and place in which it was created. (Csikszentmihalyi, 1990, p106)

Working under such a paradigm, one can easily see why the adaptation of contemplative techniques to sport, instead of their intensive use in parallel with sport, represents the dominant theme in eastern-inspired literature. Indeed, when flow is understood as an “altered state” dependant upon one’s mastery of contextual attentional cues only, cross-contextual assertions regarding the effects of contemplative attention training seem unworthy of consideration. If Csikszentmihalyi’s claims are correct, then all who desire flow should begin investing their time intensively in flow activities of choice, rather than investing time in intensive contemplative practice. But contemplative traditions, which have investigated this question over the course of millennia, make strong recommendations for extensive contemplative training to improve quality of experience and engagement, among many other more lofty goals (e.g., Fuang; Namgyal, 1993, Maharshi, 2006b; Sayadaw, 2000; Thanissaro, 1993).
The widely read scholar Michael Murphy may come closest, within the sport community, to accurately reporting this perspective. Watson (1999), and other eastern-interested scholars within the sport community, argue that Murphy may have produced the most prominent publications, in sport and performance disciplines, regarding spiritual issues, peak experience and flow. His work spans the full range of contemplative traditions – from Christian to Ancient Indian to Japanese Zen Buddhist – and he has published numerous volumes regarding the application of these traditions to sport (Murphy, 1977, 1992, 1997; Murphy et al., 1997; Murphy & White, 1978, 1995). Nonetheless, Murphy’s work does not display a clear understanding of the fundamental, cross-contextual nature of attention training and its role in the broader context of meditative methodology. Rather, his focus shifts from tradition to tradition, from method to method, and his recommendations for sport training require enormously broad and confusing systems - though even these recommendations can only be found, in print, within his most voluminous work or in published interviews (Cohen, 1999; Murphy, 1992). In fact, these recommendations for training, which he refers to as integral training, make it clear that Murphy believes individuals require simultaneous, extensive training in up to twenty different areas for the development of voluntary, flow-like, immersion. Murphy’s more concise works contain almost no practical training recommendations, as previously mentioned, and instead simply articulate the similarities between contemplative achievements and meta-normal achievements in sport (Murphy & White, 1978, 1995).
iii. Empirical Work on Meditation

The final category of literature in this review - empirical work focused on meditation and sport - is severely limited by similar understandings of meditative methods. Within these works, meditative methods are generally conceptualized as contextually limited means for “altered state” generation, rather than methods for creating fundamental improvements in one’s mental functioning. Operating under this implicit understanding, the extant empirical work, instead of investigating the effects of serious contemplative training on sport and physical activity, has merely investigated the use of meditation as a relaxation technique. Subsequently, within these studies, meditation is utilized like centering - before or during an activity for induction of residual effects - and with only statistically insignificant results (Berger, Friedmann, & Eaton, 1988; Couture, Singh, Lee, & Chahal, 1994; Griffiths, Steel, Vaccaro, & Karpman, 1981; Harris & Robinson, 1986; Murphy et al., 1997; Reynes & Lorant, 2004).

The works in this category do not exhibit formal knowledge of the theory and training methodology associated with rigorous contemplative practice. Arguably, such an understanding could be required for launching any successful empirical measurement of contemplative attention training methods, and their effects on sport performance. This problem, however, is faced by all scientific efforts focused upon measuring the effects of meditation (e.g., Lutz, Dunne, & Davidson, 2007).

In 2006, Cahn and Polich conducted an extensive literature review of the published work on meditation states and traits within psychological, and particularly neuroscientific, fields. Their primary finding was that this body of literature exhibited very little agreement with regard to either a definition or method of meditation, and
therefore could not be effectively analyzed. The reviewers did, however, find that localized theta and alpha activity was generally indicative of practice proficiency (Cahn & Polich, 2006). This assertion fits rather well with other literature available on task success, both in and outside of the sport and performance disciplines – some of which has posited that alpha activity may be indicative of the voluntary suppression of irrelevant cognitive processes (Aftanas & Golocheikine, 2001; Arambula, Peper, Kawakami, & Gibney, 2001; Hatfield, Landers, & Ray, 1984; Hauffler, Spalding, Santa Maria, & Hatfield, 2000; Kerick et al., 2001; Pan, Zhang, & Xia, 1994; Tang, 2007).

Although studies have not generally paid close attention to the particular types of meditation used, many conventional studies have been able to conduct successful inquiry into the effects of basic meditative practice, through the use of highly simplified and secularized techniques (e.g., Anton, 1999; Arias, Steinberg, Banga, & Trestman, 2006; Carlson, Speca, Patel, & Goodey, 2003; Coker, 1999; Collins & Dunn, 2005; Coruh, Ayele, Pugh, & Mulligan, 2005; Davidson et al., 2003; Dhar, 1999; Gross et al., 2004; Henderson & Donatelle, 2004; Kabat-Zinn, 1982; Kabat-Zinn, Beall, & Rippe., 1984; Kabat-Zinn, Lipworth, & Burney, 1985; Kabat-Zinn et al., 1992; Kabat-Zinn et al., 1998; Lindberg, 2005; Ott, Norris, & Bauer-Wu, 2006; Robinson, Mathews, & Witek-Janusek, 2003). These studies, and many others like them, have demonstrated that even the most basic meditative interventions, if well operationalized, can have significant measurable effects on human functioning – including stress and pain management, and immune function. Some basic meditation techniques operationalized researchers, such as Mindfulness Based Stress Reduction (MBSR) are now routinely being used in a variety of clinical environments (Lutz, Dunne, & Davidson, 2007). These approaches, while
demonstrating the effectiveness and general utility of basic contemplative training, avoid investigating the potential effects and utility of more robust traditional contemplative methodologies – especially over long-term intensive practice.

Dr. Michael Posner, of the University of Oregon, and his colleagues have been investigating the effects of training on attention for decades, and have found that even a few days of regular daily meditation training can lead to statistically significant improvements in attention and emotion-related measurements (Tang, 2007). Posner and colleagues have also been conducting some slightly longer-term, basic attention training with children – which is not explicitly based in the tradition of contemplative attention training (Alvaro, 2008). This basic, well thought-out and operationalized training has allowed the team to proceed far beyond finding significant positive results. They have as yet found no ceiling on the improvements that their participants are able to make, in attentional ability, through training.

With regard to the effects of highly advanced contemplative training, however, few studies have been published. Jonathan Cohen and Brent Field at Princeton have collected neuroimaging and psychological data on several highly advanced practitioners during a wide range of practices, but this data has not yet been revealed in print (Field, 2006). The largest, most diverse, longitudinal and rigorous study to date on contemplative attention training – “The Shamatha Project,” collaboratively conducted by B. Alan Wallace’s “Santa Barbara Institute for Consciousness Studies” and the University of California at Davis’ “Center for Mind and Brain” – is currently in the process of data analysis. Over the course of two three-month intensive retreats focused upon contemplative attention and emotion training, this team collected physiological,
electroencephalographical, cognitive, behavioral, interview and questionnaire data from over seventy participants. Although preliminary findings indicate exciting results, and some papers are forthcoming, this group will be engaged with analyzing their terabytes of data for years to come.

In 2004, Davidson and Lutz et al, at the University of Wisconsin, Madison, published perhaps the most widely-read study on the effects of advanced practitioners to date - which investigated the neuro-biological correlates of “non-referential” compassion in Buddhist adepts with 10,000-50,000 hours of practice (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004). This study indicated that such practice, in adept practitioners, created marked wide-range synchronous firing – akin to the previously measured neuronal effects of moments of “recognition” in humans and animals (Aftanas & Golocheikine, 2001; Fries, Reynolds, Rorie, & Desimone, 2001; Herculano-Houzel, Munk, Neuenschwander, & Singer, 1999; Lachaux et al., 2000; Srinivasan, Russell, Edelman, & Tononi, 1999; Stein, Chiang, & Konig, 2000; Tallon-Baudry, Bertrand, Peronnet, & Pernier, 1998; Tononi & Edelman, 1998). While similar, but less-marked patterns of neuronal activity have been observed in other studies on meditation, very little is known as of yet about precisely what such activity indicates in this context, and how best to interpret these effects (Banquet, 1973; Delmonte, 1984; Jevning, Wallace, & Beidebach, 1992; Lebedeva & Dobronravova, 1990; Song, Schwartz, & Russek, 1998). Additionally, much of the earlier work is generally considered weak with regard to its experimental design, the techniques employed, and general methodological rigor.

Davidson, Lutz and colleagues are currently working to address these major issues of operationalization and standardization so that future work in this area can
improve still further in depth and richness. With the help of many who are well versed in contemplative methods, this team has begun putting forth suggested categorizations, associated psychological and neuroscientific hypotheses, as well as recommendations for future research on forms of meditation (Lutz, Slagter, Dunne, & Davidson, 2008). This work, and associated work and collaboration connected with the “Mind and Life Institute,” may prove useful for those within the sport and performance disciplines who wish to conduct rigorous research on, and application of, meditation.

Still, while this work may be useful as a platform from which to begin, it represents fairly nascent efforts. Despite advances that have been made in studying the cognitive neuroscience of meditation over the past decade, the researchers involved may not yet have a solid intellectual or practical understanding of the meditation techniques they are studying and the rich, subtle differences between them. Lutz et al, have divided the full breadth and depth of meditation practices into only two operationalizable categories: “focused attention” and “open monitoring.” As the authors themselves state, “Failure to make such distinctions would be akin to the use of the word ‘sport’ to refer to all sports as if they were essentially the same.” (Lutz et al., 2008, p163) Unfortunately, dividing all meditative techniques into two categories would be akin to remaining content with understanding sport as including only “contact” and “non-contact” sports. For example, such a categorization would clearly inhibit progress toward gaining much practical understanding, through research, of the demands and effects of cross-country running as opposed to tennis.

Metaphor aside, some of the meditation techniques studied by these teams are rather advanced, and researchers may require a great deal more contemplative experience
before reaching a solid understanding of them, or even accurately placing them in one of these two categories. For example, Lutz et al. have, in their most recent article, categorized non-referential compassion as an “open monitoring” practice (Lutz et al., 2008). But mere intellectual understandings of this practice may be misleading. Indeed, practitioners engaged therein are not practicing with a specific object per se in mind, but are also not simply engaged with open monitoring as defined by Lutz et al. (i.e. remaining only in a “monitoring state” without any strong distinction between selection and deselection). Rather, these practitioners are explicitly actively engaged with the connative stance of compassion, which provides an unequivocal focus of attention.

The “non-referential” aspect of this practice refers specifically to the fact that this sense of compassion is not directed at any particular sentient being, and so the compassion itself is without an object, but the practice itself is explicitly with an object. Contemplatives, such as Wallace, unambiguously place compassion meditation under the broad category of samadhi, or focused attention (e.g., Buddhaghosa, 1999; Wallace, 2006b).

Furthermore, levels of expertise and depth of practice in a given practitioner bring still more confusing variables into play, when working to broadly categorize such profoundly nuanced practices. Lutz et al. address one such complexity (the transition from effortful to effortless control over attention, in advanced adepts) but display only relatively superficial understanding of the implications of such a shift, in the context of their broad categorizations (Lutz et al., 2008).

Beyond this nuance, there is the problem of understanding the weighty assertions, within contemplative traditions, regarding the nature of “reflexive awareness,” as Lutz et
al refer to it (e.g. Chagme, 1998, 2000; Padmasambhava, 1998). These assertions may not enter into play when understanding the experience of novice meditators engaged with “open monitoring” meditations – the simple definition of “open monitoring” techniques provided by Lutz et al. may well apply to the mental activity of these individuals. But when working to understand, define, and categorize the mental activity of highly advanced practitioners engaged with some practices in this category – such as those practices defined, for scientific purposes, as “open presence” meditation – the Buddhist philosophical assertions regarding awareness move from the realm of metaphysics, and directly into lived experience (e.g., Chatral, 2007; Khyentse, 2008; Pema Kunsang, 2006). And yet, despite the highly textured nature of such practices, they have been characterized by even the most high profile researchers as simply, “the ability to control emotions” (Morel, 2006).

Such difficulties may call for cross-disciplinary research, in which the researchers themselves have gained some mastery in contemplative study and practice, as opposed to inter-disciplinary research – in which many experts in different fields are simply brought together to discuss research topics. In order to perform skillful scientific exegesis of the data collected from advanced practitioners, scientists may need to have, at the very least, a solid philosophical understanding of the implications of a given practice in its advanced stages. Many contemplatives would claim that this too, however, would not be enough, as researchers are not likely to gain understanding that is truly up to this task without engaging in such advanced practice themselves (e.g., Santideva, 1997; Sogyal, 1994; Tsongkhapa, 2002). This essential stumbling block even applies, to some extent, to the very practice of “non-referential” compassion studied in Lutz et al.’s groundbreaking
paper (e.g., compassion itself is understood as an effulgent quality of the most primordial levels of awareness, and this understanding is a direct outgrowth of experience in such adept meditators) (e.g., Lingpa, 2004; Dudjom, 1998).

At the most basic level, such researchers will need to begin first by gaining a solid understanding of the theory and experience of shamatha practice. Even Lutz et al. point out that more advanced practices depend upon highly developed focused attention practice (Lutz et al., 2008). The psychological and neurophysiological study of meditative practice, as a field, may well be experiencing dwarfed growth due to the fact that this experiential step has not been taken. Only a handful of studies have been produced in this area over the past several years, and overall understanding remains primitive, at best.

Thus, given these inhibitory deficits of intellectual and practical understanding within theoretical, applied, and the subsequent empirical work conducted in all modern psychological fields - but most particularly the sport and performance fields - a more complete presentation of contemplative attention theory and training seems entirely apropos. The discussion will now turn to such a presentation.
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Chapter 3: Introduction to Theory of Shamatha: Connections to Flow Theory

“Subjective experience is not just one of the dimensions of life, it is life itself. Material conditions are secondary: they only affect us indirectly, by way of experience. Flow, and even pleasure, on the other hand, benefit the quality of life directly.”
– Mihalyi Csikszentmihalyi in Flow: The Psychology of Optimal Experience

Attention is an undisputable key to modulating subjective experience. From Western Psychology’s beginnings in the 19th century, psychologists have acknowledged the essential role of attention in mediating the subjective and effectively interacting with the objective worlds (e.g., James, 1890, 1902; Wundt, 1904). William James defined attention by saying,

Every one knows what attention is. It is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others, and is a condition which has a real opposite in the confused, dazed, scatterbrained state... (James, 1890, p404-405)

Using fundamentally identical definitions, modern sport psychology has, over the past few decades, come to accept attention as perhaps the most important factor in achieving excellence (Orlick, 2000; Ravizza, 1978; Vealey, 2005). Nonetheless, both these fields have only recently begun to produce robust theoretical frameworks for attention, which in turn have only now begun to be empirically verified. As a result, sport psychology has yet to produce empirically and theoretically solid attentional training methods (Boutcher, 2002).

Mihalyi Csikszentmihalyi, co-founder of the Positive Psychology Movement, and father of Flow Theory, places attention at the forefront of his work as well. Attention is even given a central role in his very definition of optimal human experience. He states:

The optimal state of inner experience is one in which there is order in consciousness. This happens when psychic energy – or attention – is invested in
realistic goals, and when skills match the opportunities for action. The pursuit of a goal brings order in awareness because a person must concentrate attention on the task at hand and momentarily forget everything else. (Csikszentmihalyi, 1990, p6)

Within this paradigm of attention, psychic energy is generally seen as a limited, diminishable resource. Csikszentmihalyi states, “Attention is like energy in that without it no work can be done, and in doing work it is dissipated.” (Csikszentmihalyi, 1990) To him, attention is the currency, so to speak, that individuals invest in all interactions and endeavors.

Furthermore, his work assumes that consciousness, and therefore psychic energy, is limited by the classic “seven plus or minus two” rule produced by psychological research on working memory, which asserts that human beings can keep no more than nine bits of information in conscious awareness at any given moment (Csikszentmihalyi, 1990). Based upon this rule, he calculates that an average human being will only be able to process 185 billion “bits” of information within their lifetime.

Thus, from the perspective of Flow Theory, how one uses this limited commodity of psychic energy determines whether order or disorder characterizes the mind. Broadly speaking, ordered consciousness, or flow, is brought about when psychic energy is invested in enjoyable experiences (generally defined as goal oriented activities in which skills match challenge), while disordered consciousness occurs when attention is “diverted to undesirable objects, leaving us no longer free to use it according to our preferences.” (Csikszentmihalyi, 1990, p36)

But Csikszentmihalyi’s assertions do not, at least on the practical level, leave much room for understanding psychic energy as a trainable entity. Nor does he provide any truly testable hypotheses about the sources of psychic energy or consciousness itself.
His original work, and the nearly two decades of research which have followed, provide almost no useful phenomenology in this regard. This oversight is ironic, considering that “total concentration on the task at hand” is thought to be the very defining factor of the flow state itself. (Jackson & Eklund, 2004)

In the aforementioned contemplative traditions, however, emphasis on attentional refinement has produced a systematic, highly refined methodology for the direct training of one’s mental faculty of attention. Within Indo-Tibetan Buddhist traditions this training is especially emphasized, and is referred to as “shamatha” or “quiescence” practice (Wallace, 1999). Shamatha methodology is based upon thousands of years of first-person, empirical inquiry into the mind (Wallace, 2002a, 2002b). Aside from Csikszentmihalyi’s definition of attention as a rather fixed entity, and the implication that no real empirical inquiry can take place in the mind, his Flow Theory and empirical contemplative theory are highly compatible. This holds true especially with regard to assertions about those fundamental factors influencing, and comprising, optimal human experience.

Shamatha practice, as previously noted, is not focused on the generation of so-called “altered states” during meditation sessions. Rather, shamatha is a methodology primarily designed to eliminate attentional imbalances by training subjective human faculties (Wallace, 2002a, 2003). As a result, shamatha practice, in contrast to the largely undifferentiated context of Zen practice, is and must be accompanied by taxonomy of attentional faculties and phenomena, as well as robust theory regarding their relationship. The following discussion, then, will focus largely on articulating this taxonomy and theory, and comparing it with Csikszentmihalyi’s Flow Theory.
In the interest of brevity and clarity in the current chapter, Csikszentmihalyi’s landmark work, *Flow: The Psychology of Optimal Experience*, will be used as the primary source of information regarding Flow Theory. This text is the place where Csikszentmihalyi’s Flow Theory and research are most fully and coherently laid out. Furthermore, this text is still the most oft cited reference in the entire body of flow literature. Although many subsequent works have been written, both by Csikszentmihalyi and others, this work remains most useful for the current comparative purposes (e.g., Csikszentmihalyi, 1974, 1992, 1997a, 1997b; Csikszentmihalyi & Jackson, 1999; Curry, Snyder, Cook, Ruby, & Rehm, 1997; Dillon & Tait, 2000; S. Jackson, Thomas, Marsh, & Smethurst, 2001; S. A. Jackson, 1992; S. A. Jackson & Eklund, 2004; S. A. Jackson & Eklund, 2002; S. A. Jackson, Kimiecik, Ford, & Marsh, 1998; Kimiecik & Stein, 1992; Pates, Maynard, & Westbury, 2001; Pates, Oliver, & Maynard, 2001; Russell, 2001; Seligman & Csikszentmihalyi, 2000).

For similar reasons, the current discussion will, from the contemplative side, draw almost entirely from the work of Dr. B. Alan Wallace, and from my two years of full-time meditative training, and four years of practice under his guidance. Wallace has spent the duration of his adult life studying shamatha practice as a contemplative - both in and out of isolated retreat - under the guidance of over fifty of the worlds’ most qualified contemplative teachers, and also as a Stanford educated scholar. His work and thinking present, arguably, the clearest and most diversely referenced explanation of contemplative attention training available in western literature.

The breadth of his work also demonstrates the ubiquity of attention training practices in almost every major Buddhist tradition, the Taoist tradition, as well as the
various Vedic traditions referred to as Hinduism, and the Judeo-Christian Traditions. In his texts *Genuine Happiness* (2004), *Balancing the Mind* (2005), *The Attention Revolution* (2006), and others he has used primary references from each of these fields of contemplative inquiry, and put forth a coherent, complete explanation of contemplative attention training – most notably as it exists within the Tibetan and Theravada Buddhist traditions.

**i. Attentional Imbalances**

Shamatha practice begins with the assertion that human attention is, habitually, prone to two main dysfunctions: excitation and laxity. Interestingly, these two imbalances - at least in their most coarse manifestations - are synonymous with the two primary forms of “psychic entropy” identified by Csikszentmihalyi, which are: chaotic thinking or anxiety, and boredom or unenergetic engagement (Csikszentmihalyi, 1990). According to both theories, these two simple imbalances, combined with a habitually created stream of involuntary thoughts, create the full range of attentional problems faced by human beings. Both excitation and laxity can occur in short or extended, as well as infrequent or frequent bursts during task engagement, or over extended periods of time.

According to Wallace, a mental act of *excitation* involves hyperactive, compulsive grasping to *signs*, such that one’s attention is pulled away from its chosen object and carried elsewhere (Wallace, 2005). *Signs* are, in essence, any appearance to the mind - whether it be a representation of sensory input processed in real-time, or thoughts in the form of self-generated or remembered sensory images, dialogue, monologue, both, or less cogent perturbations (Wallace, 2005). *Grasping* is a mental
event occurring when a particular sign is *identified* (Wallace, 2005). *Identification*, on the coarsest level, has the simple connotation of something being considered “mine.” That is to say, the sign that has arisen is “my sign.” On a more subtle level, grasping can occur when a sign is identified as existing in “my perception.” At the subtlest level, grasping causes the bifurcation between subject and object – a bifurcation that is eventually identified as erroneous within the context of Buddhist completive practice. However, those subtlest levels of grasping are not completely eliminated within the context of shamatha practice - they require the use of other contemplative methods in order to correct – and therefore will not be discussed in the current work.

With these simple definitions, excitation becomes an easily observable mental phenomenon and by far the most prominent for a majority of modern people. However, the major implications of excitation, as it is defined here, challenge western assertions on several counts. Most importantly, human beings experiencing optimal engagement, under this definition, are not grasping onto or identifying with any thoughts, even if the object of their attention happens to be the thought-stream. Flow Theory, once again, is entirely in accord with this assertion. One of the nine essential elements of optimal human experience, as identified by this body of literature, is “loss of self-consciousness.” Although this element is not defined in the precise empirical language of grasping, signs, etc., its implications are similar: those experiencing optimal engagement are not self-identifying with mental or physical phenomena and imposing judgments upon them. (Csikszentmihalyi, 1997b Csikszentmihalyi, 1990; Jackson, 2004; Csikszentmihalyi & Jackson, 1999)
The following is just one of many places in which Csikszentmihalyi articulates this phenomenon:

Self-Consciousness, which is the most common source of distraction, is not a problem for such a person. Instead of worrying about how he is doing, how he looks from the outside, he is wholeheartedly committed to his goals. In some cases it is the depth of involvement that pushes self-consciousness out of awareness, while sometimes it is the other way around: it is the very lack of self-consciousness that makes deep involvement possible. (Csikszentmihalyi, 1990, p211)

These assertions do not necessarily imply, however, that thoughts will not occur during the course of effectively immersed conversation, athletic performance, or any other activity. Rather, the assertion that “excitation” is a primary imbalance of attention implies that, in the midst of immersed attention, one’s relationship to thought changes. One who is free of excitation avoids involuntarily reifying signs, including thoughts, by placing them in an ego-related, self-identified conceptual construct, and subsequently maintains voluntarily undistracted immersion in their chosen act. This shift in relationship will of course occur in varying degrees - even within the context of formal shamatha practice - until one completes the training.

Excitation, within the context of shamatha practice, occurs in three degrees: coarse, medium and subtle. Coarse excitation occurs when an individual forgets their chosen object of attention completely (Wallace, 2006). A classic example of coarse excitation in a sport context then, would be any athlete who forsakes all signs of current engagement with their sport (the feel of a racket in hand, the movement of an opponent, the trajectory of a ball, etc.) to become latched onto task-irrelevant signs - thoughts of victory or defeat, self-loathing, or even involuntary self-praise or self-talk, for example. Such an individual has disrupted their engagement with the task at hand in an utter and
complete way by entirely forgetting task relevant cues - if only for a moment. Similarly, within the more explicitly mental context of meditation training, one experiences coarse excitation when their meditative object is forgotten completely – perhaps forsaken for things similar to those in the above example.

Less jarring, but still hindering immersion, medium excitation occurs when an individual retains peripheral attention on their chosen object, but allows involuntary thoughts, or task-unrelated sensory cues (both *signs*) to occupy the center of their attentive awareness (Wallace, 2006). One can easily downgrade the previous example to medium excitation, by simply imagining an athlete experiencing difficulty during engagement that is not so marked as to leave them in even momentary, complete forgetfulness of the task at hand. An athlete who is completely free from coarse excitation at a given moment, but is experiencing medium excitation, would not find themselves periodically having the sense of “returning” from “elsewhere,” but rather would have a general feeling of “divided attention” while performing. This may occur in brief bursts, during which the athlete engages primarily with task-irrelevant thoughts or sensory cues, or may occur during the vast majority of engagement with a competition or practice.

Given the primary role of self-talk - and thought in general - in western sport contexts, it may be that medium excitation is considered a rather optimal level of engagement during most performances. For many, the truly task-relevant sights, sounds, and tactile sensations associated with performance are not the most common primary characteristics of experience. Furthermore, in applied sport psychology, thoughts are considered such a constant, primary aspect of sport experience, that they have become the
main focus of interventions. *Thoughts*, not *attention*, are generally referred to as focused on the task within applied sport and performance psychology, and are assumed primary aspects of all but peak, or flow experiences (Ravizza & Hanson, 1995). Similarly, Csikszentmihalyi often refers to ordered consciousness, or flow, as a state in which one has control over the content of consciousness (Csikszentmihalyi, 1990). However, in the context of formal shamatha practice, the presence of pronounced, essentially task irrelevant and explicitly self-identified verbal, internal dialogue would be referred to as an imbalance - at the very least medium excitation.

Subtle excitation occurs when one’s chosen object remains at the center of attention, but involuntary thoughts and task-unrelated cues persist at the periphery of attention. Returning once again to the previous example, subtle excitation would leave the athlete focused primarily on the task at hand, with bad calls, negative and positive self-talk, and the cheering crowd, etc, at the outer periphery of their attention. Consciously identifying a level of imbalance this subtle would, however, be unlikely in the course of normal experience. When an elite contemplative is experiencing only subtle excitation, such mental phenomena can sometimes be so little self-identified that they may not even become recognized or differentiated as any particular sign. Rather, such phenomena might be perceived more explicitly as “mumbling” or simply “movement” in the periphery of one’s awareness. Individuals, who within the context of formal shamatha practice have honed their attentional ability such that only infrequent instances of subtle excitation occur, may also experience partial or complete implosion of the five senses – so long as they are practicing with a mental object.
To further understand subtle excitation, one could consider the possibility that medium excitation, in all cases save for those referred to as “flow states,” may be the gold standard for elite-level attentional engagement in sport. Those athletes in even the deepest of documented flow experiences are, very likely, experiencing at least subtle excitation without identifying it as such. The virtues of very deep flow-level engagement may allow those within it to dismiss such excitation rather quickly, without experiencing much “self-consciousness.” If so, this process would help prevent these events from evolving further into specific, differentiated and self-identified mental phenomena, which might later be reflected upon as distractions.

Of course, this description does not yet account for laxity. Generally, in the absence of coarse excitation, laxity enters the attentional equation - though some individuals may be naturally more prone to laxity than excitation. *Laxity* occurs when one’s attention - rather than being ripped or drawn away from the attentional object by grasping - is simply sloughed off of one’s chosen object, to some degree, due to laziness or low levels of energy in their engagement with the task. Here, many times, an individual may be overly relaxed, fatigued or tired, or simply unable to focus in on their object with clarity or vividness. Again, Flow Theory too identifies this phenomenon as a primary form of psychic entropy (Csikszentmihalyi, 1990). Similar to excitation, however, laxity occurs in three degrees of severity within shamatha theory and practice. (The ever-familiar sense of flat-out *dullness*, or sleepiness, is too coarse an imbalance to qualify as any of these three levels.)

Coarse laxity occurs when an individual nearly loses their object of attention completely, due to the attention being too slack. A baseball outfielder afflicted by coarse
laxity will have “spaced-out” mentally, if even for a moment, to such a degree that their attention is just barely present on the baseball field. Such a player, not even necessarily distracted by task unrelated thoughts or cues, would simply be momentarily resting in lethargy - unengaged with much of anything at all. This state would likely, though not necessarily, preclude coarse excitation, but certainly not medium or subtle excitation.

Though one can easily picture a youth baseball player afflicted by coarse laxity, the phenomenon is not at all unique to youth players and commonly disrupts academic, athletic, and other realms of engagement at all ages and skill levels - particularly on a momentary basis. During short-lived experiences of coarse laxity the imbalance may be difficult to recognize, because there may be no memory of having attended elsewhere or being otherwise conventionally distracted.

Medium laxity, however, involves maintaining attention on one’s chosen object, but without attaining much, if any, vividness on the object. *Vividness*, in this case, is a technical term, but is related to the common English definition which refers to brightness, clarity, and active, inventive engagement (Encarta, 2006). Specifically, in the context of shamatha, *vividness* refers to the volume of moments of ascertaining cognition one experiences, per unit time, while engaged with an object (Wallace, 2006).

Subtle laxity is generally considered impossible to detect without elite levels of attentional training. With only subtle levels of laxity, the object or task at hand appears vividly, but attention is – according to the most refined and well practiced contemplatives - “slightly slack” (Wallace, 2006). Recognizing this “slight” slackness requires a solid experiential feel for all three levels of excitation, and both medium and coarse laxity, in order to recognize.
Laxity, in these three degrees, and excitation in its respective degrees, stand as widely recognized attentional imbalances, according to Wallace’s scholarly work and experience apprenticing under many of the world’s most highly qualified contemplative masters. He further states that one who identifies and remedies these imbalances has identified and remedied afflictions that can be universally recognized throughout the full range of human task engagement (Wallace, 2005). As one can imagine, he does not recommend multi-tasking as a means to high-level engagement with anything, and modern psychological literature now provides support for these notions (Runge, Harris, Jolly, & Todd, 1998; Wetherell, Hyland, & Harris, 2003; Wetherell & Sidgreaves, 2005).

As previously asserted, shamatha practitioners claim that the subtlest of these imbalances can only be detected and remedied in the context of intensive contemplative retreat (Wallace, 2006). Shamatha practice, when done properly, creates a subjective laboratory setting, in which the only task relevant cues are mental phenomena (Wallace, 2002a, 2002b, 2006a; 2007, 2008, 2009). As a consequence, the practice allows individuals an opportunity to improve their ability to identify and manipulate subjective variables in a way not possible during tasks that involve widespread engagement with sensory stimuli. Hence, using a mental object is essential for significant progress.

Outside such a subjective laboratory, the wealth of sensory input prevents an individual from identifying a high percentage of these imbalances as they occur, and thus does not allow the opportunity to retrain mental habits with much degree of subtlety. Sport, for example, would not allow individuals the opportunity to easily identify and manipulate such subtle subjective variables in the midst of its context, because one must remain otherwise engaged with sensory variables.
Most modern elite athletes, however, would also be habitually engaged with their own sport related self-talk and other thought patterns. Thus, the attentional ability developed only within a sport setting, and other conventional settings, tends to be largely dependant upon contextual variables – at least from the perspective of shamatha practitioners. Outside the contemplative environment, Csikszentmihalyi’s assertions regarding flow entry as a phenomenon dependent upon one’s skill development within a specific realm, and therefore not transferable to other realms, would be accurate.

Returning to his statement:

The details of how the experience is produced are unique to Yoga, as they are unique to every other flow activity, from fly-fishing to racing a Formula One car. As the product of cultural forces that occurred only once in history, the way of Yoga bears the stamp of the time and place in which it was created. Whether Yoga is a “better” way to foster optimal experience than others cannot be decided on its own merits alone – one must consider the opportunity costs involved in the practice, and compare them with alternative options. (Csikszentmihalyi, 1990, p106).

He asserts that individuals generally create attentional automaticity by setting specific goals with relation to particular context dependant variables only, and are therefore unable, in any significant degree, to recreate such high levels of engagement in other realms without similar amounts of task specific practice - even in the meditative context.

Csikszentmihalyi however, in making his above statement, misses the most important, unique aspect of shamatha as an attentional training method: Shamatha allows individuals to identify, become familiar with, and habituate appropriate responses to the universal, mental causes of distraction (laxity and excitation). Thus, the practice differs from fly fishing and formula one racing in that sport of all kinds develops, by in large, contextually dependent attentional cue responses; shamatha, on the other hand, develops
subjective, non-contextually dependent, attention-related mental faculties. In this way, those who have practiced shamatha during its several-thousand year history claim that it enables them to effectively confront attentional imbalances in all tasks - regardless of context.

Csikszentmihalyi speaks about “micro-flow” activities - challenges that can be made to fit the regular patterns of everyday life, and which can add meaning and enjoyment throughout the course of some normal activities (Csikszentmihalyi, 1975, 1990). Shamatha could be likened to a “micro-flow” activity, but one that can become embedded, as well as completely task relevant, in all activities.

Csikszentmihalyi considers the deepest of flow experiences to be beyond the reach of “micro-flow activities,” and implied that the deeper “macro flow” experiences were reserved for activities entailing greater complexity and more all-encompassing challenge (Csikszentmihalyi, 1975, 1990). The contemplative training of attention, however, directly challenges this notion. The skills gained in such practice can be embedded in any activity – very much in the way that Csikszentmihalyi describes. However, this particular micro-flow activity can lead to quite deep macro-flow experience throughout the course of any task – complex or simple, challenging or routine.

**ii. Component Faculties of Attention**

Approaching excitation and laxity, during shamatha practice, involves the acute habituation of two mental faculties: *mindfulness* and *introspection*, which enable practitioners to create a durable change in their relationship to *signs*, and in the involuntary occurrence of excitation and laxity. *Mindfulness* could be defined, within the
shamatha context, as “the ability to attend continuously to a familiar object, without forgetfulness or distraction” (Wallace, 2006, p13). Mindfulness, then, is the act of simply remembering what one is doing - or “sustaining a knowing” with regard to the task at hand - in the face of the many task-irrelevant signs that may arise in subjective space throughout the course of an activity, as well as instances of flat out dullness. Perhaps the best analogy, within modern psychology, for this definition of mindfulness is “conscious control,” or “will,” through executive attentional networks, over thoughts and feelings (Posner, 2005). In Developmental Psychology, such cognitive control is often referred to as “self-regulation” (Rueda, Posner, & Rothbart, 2004). In practice, at its most basic and undeveloped level, use of this faculty involves a cycle of remembering and forgetting one’s chosen attentional object.

For example, I may exemplify a rather low level of mindfulness when I commit to read a book on attention training for one hour. In this case, I read for some moments, and then realize that I am somewhat hungry. I forget my commitment, and prepare to stand and head for the kitchen, only to remember that I had committed to read for one hour. So, I sit back down, only to stand up and head for the bathroom upon remembering that I forgot to clip my fingernails. Such sequences happen regularly in the course of normal life but occur on much more subtle levels as well. Perhaps I remain sitting, by all objective accounts immersed in my reading for the full hour, but subjectively undergo the same cycle of forgetting and remembering purely within the realm of mental events. In the untrained mind, this example, at best, differs only in the intensity and duration of desire for things and actions within the physical world. Csikszentmihalyi addresses these coarsest levels of distraction in modern life by saying:
To be distracted against one’s will is the surest sign that one is not in control. Yet it is amazing how little effort most people make to improve control of their attention. If reading a book seems too difficult, instead of sharpening concentration we tend to set it aside and instead turn on the television. (Csikszentmihalyi 1990, p. 211)

The level of mindfulness required to remain physically engaged with reading a book, however, is so coarse as to not even be considered “excitation” within the shamatha context. Even perfected mindfulness, however, would completely eliminate only coarse excitation. Mindfulness, in its most highly developed forms, involves such a strongly manifesting prospective memory of one’s task that all unrelated mental phenomenon are viewed primarily as “not the object,” and coarse excitation fails to occur. (Wallace, 2006).

Development of this high level of mindfulness, however, is hindered in the normal course of conventional physical tasks such as reading. In such tasks, the common criteria for success do not allow the participant to identify the full range of presently occurring, comparatively subtle, excitatory imbalances. These imbalances do not necessarily stop one from successfully completing a daily task, or participating relatively effectively in a sport, but they do prevent memorably smooth engagement - much less flow-like levels of immersion - from taking place. Thus, attentional objects in shamatha are designed precisely for the purpose of making the more subtle realm of mental signs into task-relevant cues (Wallace, 2006).

While attentional objects in shamatha practice may vary, success in attending to all of them requires a relatively profound state of inactivity in comparison to conventional tasks. The coarsest of these tasks involves attending to a physical object – not unlike the candles used in many eastern-inspired sport and performance mental
training interventions. Just a bit more subtle than these objects is perhaps the most well-known meditative object: the tactile sensations of the breath. A common target location in this task is the nostril apertures. Mindfulness in this case, when compared to the reading example, has a much more highly refined target. Sensations of the breath at the nostril apertures serve as the only task relevant cue during this practice, leaving any other signs such as self or sense generated visual input - including mental images of the nostrils, sound, thought of any kind, or even the act of controlling one’s breath - categorized as distractions. In fact, as the practice progresses, the very sense of having a body at all becomes a hindrance to vividness of attention.

Since formal shamatha practice, if it is to be done seriously, must be practiced in environments with relatively low levels of sensory input, external distractions are minimized. This minimization is the first step toward creating the aforementioned “subjective laboratory” environment. Here, one has the opportunity to begin fathoming the many levels and varieties of task unrelated signs that exist exclusively within one’s own mind. Such signs are regularly being grasped onto, in varying degrees, throughout the duration of any task engagement - most often without one’s explicit knowledge. These signs are copious and complex in their forms and relationships and, from the perspective of shamatha practitioners, if one attempted to dismiss them all in the manner proscribed by mental skills training - refocusing on cue-words, positive images, voluntary breath control techniques, or utilizing logic and reason - one would never return to proper, focused engagement with the attentional object. The same is true for Csikszentmihalyi’s recommendations for goal setting and other discursive approaches to improving attention (Csikszentmihalyi, 1990). These approaches can certainly be
transformative and beneficial, but the transformation made possible by contemplative exploration and training of the mind is, comparatively, much greater.

When one remains aware of only the coarsest level of mental phenomena, in tandem with physical phenomena - as is conventionally done in sport - refocusing seems entirely possible with the help of mental skills. From a contemplative perspective, however, consistent voluntary entrance into flow-levels of immersion is impossible on this level without prior training, because the variables contributing to flow are, for all intents and purposes, invisible.

Again, mindfulness is the initial key to altering one’s relationship to signs, such that they no longer cause *coarse excitation*. With fully developed mindfulness, one will be able to allow the full range of signs – subtle and coarse, sensory and internally generated – to flow through the space of awareness without *grasping* onto, and identifying with them so strongly that continuity of engagement with the chosen task is broken/forgotten. Mindfulness, though, does not provide a solid defense against the more covert problems of medium and subtle excitation, or the three forms of laxity. To free oneself of such imbalances, one must develop introspection.

*Introspection*, in the context of shamatha, is a faculty that monitors the state of attention, identifies the various levels of excitation and laxity as they occur in real time and, in its most highly developed form, is able to anticipate such imbalances - allowing for pre-emptive action to be taken. *Introspection* then, like mindfulness, could be thought of as a mental technology.

The closest analogy for this contemplative definition of “introspection,” within much of modern psychology literature, would be “metacognition” - or more precisely
“meta-attention.” These terms are accurate descriptors of introspection, in the contemplative context, in so far as they indicate “awareness of one’s own cognition,” or “awareness of the quality of one’s own attention.” However, modern psychological literature commonly defines meta-cognition as “thinking about one’s own thoughts,” and has the distinct connotation of discursive self-appraisal (e.g., Kornell, 2009). This prevalent modern psychological definition of metacognition then, it would seem, does not acknowledge the possibility for human beings to become non-conceptually aware of their own cognitive processes. Furthermore, the term “meta-attention” is generally used to denote thought-based beliefs about one’s own attention and could perhaps be better summarized as “verbal or thought-based attentional self-appraisal” (e.g., Loper & Hallahan, 1982). Subsequently, these terms are not acceptable for use within the current discussion.

Nonetheless, William James defined introspection in 1890 as, “the looking into our own minds and reporting what we there discover.” (James, 1890, p185) He further stated,

Every one agrees that we...discover [upon introspective investigation] states of consciousness. So far as I know, the existence of such states has never been doubted by any critic, however skeptical in other respects he may have been. That we have cogitations of some sort is the inconcussum in a world most of whose other facts have at some time tottered in the breath of philosophic doubt. All people unhesitatingly believe that they feel themselves thinking, and that they distinguish the mental state as an inward activity or passion, from all the objects with which it may cognitively deal. I regard this belief as the most fundamental of all the postulates of Psychology, and shall discard all curious inquiries about its certainty as too metaphysical… (James, 1890, p185, original emphasis)

This understanding of introspection is entirely in line with the contemplative understanding that will be discussed herein. The primary difference between these two understandings is that James did not assert introspection could be trained as a skill, while
many contemplatives explicitly make this assertion (e.g., Buddhaghosa, 1999; Dalai Lama, 2007; Keating, 2001; Laird, 2006; Lamrimpa, 1992; Wallace, 2005).

In its early stages of development, introspection buffers the more basic function of mindfulness by identifying excitation and laxity as they occur and provides an opportunity to take corrective action. Of course, the most basic, untrained form of introspection is required from the very beginning of shamatha practice - when one’s primary focus is developing mindfulness. If there were no introspection taking place, then whenever one forgot the task at hand (in this case attending to the object of meditation) one would never return. The “ah-ha!” moment in which one realizes that attention has strayed from the task at hand is a direct product of successful, basic introspection. This level of introspection is a commonly occurring event and may not require training for some people.

Some of these moments come far too late, as in the case of returning from coarse laxity, or coarse excitation, only to realize we are about to run into the car in front of us, which has just stopped to let an elderly lady cross the street. A less dire case would be the outfielder, in our previous example, returning from similar discontinuities with his baseball engagement to realize that a fly ball has just been hit into the field area he is meant to be covering. In both cases there is a clear, brief moment of pronounced recognition of what one is presently engaged with, and a subsequent opportunity to take action. This is introspection.

Introspection in its later stages of development, however, buffers mindfulness by identifying factors that have previously lead to excitation or laxity, and enabling pre-emptive action. One utilizing these more highly trained functions of introspection is able
to move beyond the basic state of “non-forgetting,” and begin to confront coarse laxity, medium excitation and laxity, and subtle laxity and excitation. According to Wallace, and many other contemplatives, the process will occur in that order (e.g., Dudjom Rinpoche, 1998; Wallace, 2005, 2006).

iii. The Stages and Accomplishment of Shamatha

Again, while mindfulness - in its fully developed form - is a faculty that ties one’s attention to a chosen object through prospective memory, introspection is a faculty that habitually investigates one’s mind for imbalances, and ensures a quality of engagement that mindfulness cannot. Both of these faculties are essential to the practice but, pragmatically speaking, they must be prioritized each at different stages of development. Similarly, at different levels of shamatha practice, different approaches to remedying attentional imbalance are prioritized as well. These differing approaches can be seen rather plainly in Table 1, in which Wallace details the nine sequential stages of development in shamatha practice (Wallace, 2006).

The initial stages are marked by the progression of skill in addressing excitation and laxity in their respective three levels of severity. The final stages are marked by maintaining/habituating a balance of attention that is explicitly free from these imbalances. The actual achievement of shamatha, however, is an acute event that is discontinuous from this logical progression, and would not be otherwise predicted based upon the experience of proceeding through the previous stages. Contemplatives who have reached this acute event, or final achievement on the path to balanced attention,
indicate that it begins with a cranial sensation – “as if a palm were being placed on the
top of your shaved head.” (Wallace, 2006, p156)

This catalyzing event leads to an unprecedented shift in what are referred to as the
vital energies or “pranas.” This shift, initially, is characterized by waves of bliss in the
body and mind that are unmatched by any experienced previously – from chocolate to
orgasm – and therefore temporarily debilitating (Wallace, 2006). Once these waves
subside, the shifting process is said to yield a level of physical and mental “pliancy” that
is otherwise unattainable. Aside from having eliminated any latent tendencies for
excitation or laxity, one who achieves shamatha is said to have gained a newfound ability
to counter a much broader range of mental and physical dysfunction – which has life-
changing effects on well-being (e.g., Buddhaghosa, 1999).

Additionally, after this achievement, one can voluntarily enter states of formal
meditation in which the aforementioned substrate, or substrate consciousness, is
perceived exclusively. Specifically, one can perceive this relative “ground of becoming”
without any involuntary disturbances from excitation or laxity, and without distraction
from sensory input (i.e., all senses become imploded, as they do during deep, dreamless
sleep) (Wallace 1999). However, one is still able to voluntarily catalyze mental events
and investigate their nature, as well as their effect upon any chosen dependant variables –
such as perceived affect. Within many Buddhist traditions, this state is used expressly as
a tool for research into the nature of mental phenomena, and reality itself, and therefore
may hold exceptional promise as a tool for empirical research within the modern mind
Wallace (2005, 2006) asserts that, after achieving shamatha, this level of balance can be lost if it is not regularly maintained through formal meditation – much like keeping a vehicle well maintained and supplied with fuel – and through living a lifestyle conducive to its maintenance. However he asserts that, if those conditions are met, this level of wellbeing can be sustainable for life.

When one first begins shamatha practice, it is highly useful to have the conceptual knowledge discussed thus far. A person without knowledge of the imbalances will, first and foremost, be left unaware of what, specifically and fundamentally, is causing functional problems with attention. Such ignorance may leave one seeking to understand attentional imbalance by dealing with thoughts as reified entities, rather than understanding them as subjective phenomena which are causally linked, most fundamentally, to dynamic subjective relationships. Secondly one will, without detailed knowledge of the subjective “mental technology” that must be developed to counter those imbalances, be left unguided on the quest to remedy attentional imbalances.

But effective contemplative training of the attention entails far more than conceptual knowledge. The practice itself, in application, is as much an art as it is a process of technological development and scientific inquiry, and the implications of cultivating this art are broad and often very personal. No discussion of such practices would be complete without a much more applied treatment of the practice itself. The following two chapters, then, will attempt to provide a feel for this practice in application. Chapter Four will address how to engage in the practice itself, and Chapter Five will provide a discussion of supportive factors that enable the practice to truly flourish.
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<thead>
<tr>
<th>Step</th>
<th>What is achieved</th>
<th>The power by which that is achieved</th>
<th>What problems persist</th>
<th>Attentional imbalances</th>
<th>The type of mental engagement</th>
<th>The quality of the experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Directed Attention</td>
<td>Learning the instructions</td>
<td>There is no attentional continuity on the object</td>
<td>Coarse excitation</td>
<td>Focused</td>
<td>Movement</td>
</tr>
<tr>
<td>2</td>
<td>Continuous Attention</td>
<td>Thinking about the practice</td>
<td>Most of the time the attention is not on the object</td>
<td>Coarse excitation</td>
<td>Focused</td>
<td>Movement</td>
</tr>
<tr>
<td>3</td>
<td>Resurgent Attention</td>
<td>Mindfulness</td>
<td>One still forgets the object entirely for brief periods</td>
<td>Coarse excitation</td>
<td>Interrupted</td>
<td>Movement</td>
</tr>
<tr>
<td>4</td>
<td>Close Attention</td>
<td>Mindfulness, which is now strong</td>
<td>Some degree of complacency concerning Samadhi</td>
<td>Coarse laxity, medium excitation</td>
<td>Interrupted</td>
<td>Achievement</td>
</tr>
<tr>
<td>5</td>
<td>Tamed Attention</td>
<td>Introspection</td>
<td>Some resistance to Samadhi</td>
<td>Medium laxity and medium excitation</td>
<td>Interrupted</td>
<td>Achievement</td>
</tr>
<tr>
<td>6</td>
<td>Pacified Attention</td>
<td>Introspection</td>
<td>Desire, depression, lethargy, and drowsiness</td>
<td>Medium laxity and subtle excitation</td>
<td>Interrupted</td>
<td>Achievement</td>
</tr>
<tr>
<td>7</td>
<td>Fully Pacified Attention</td>
<td>Enthusiasm</td>
<td>Subtle imbalances of the attention, swiftly rectified</td>
<td>Subtle laxity and excitation</td>
<td>Interrupted</td>
<td>Familiarity</td>
</tr>
<tr>
<td>8</td>
<td>Single-Pointed Attention</td>
<td>Enthusiasm</td>
<td>It still takes effort to ward off excitation and laxity</td>
<td>Latent impulses for subtle excitation and laxity</td>
<td>Uninterrupted</td>
<td>Stillness</td>
</tr>
<tr>
<td>9</td>
<td>Attentional Balance</td>
<td>Familiarity</td>
<td>Attentional imbalances may recur in the future</td>
<td>The causes of those imbalances are still latent</td>
<td>Effortless</td>
<td>Perfection</td>
</tr>
</tbody>
</table>

Figure 1: Stages of Shamatha Practice (Wallace, 2006)
BIBLIOGRAPHY


SECTION II:

PRACTICAL

APPLICATION
“All the scriptures are meant only to make man retrace his steps to the original source. He need not gain anything new. He must only give up his false ideas and useless accretions. Instead of doing it he tries to catch hold of something strange and mysterious because he believes that his happiness lies elsewhere. That is the mistake.”

- Shri Ramana Maharshi in *Talks With Ramana Maharshi, Vol II*

The process of developing sustainably relaxed, highly stable and vivid focused attention is, in its simplest form, essentially a subtraction problem. Normal, habitual modes of engagement, minus the six primary imbalances of attention (coarse, medium and subtle excitation and laxity), equals the goal. This is not a zero-sum game, but it is a game in which the goal must be zero. The untrained mind, minus tension, dullness, excitation and laxity, equal zero deviation from that which enables flow like engagement: awareness. From a contemplative perspective, standard Psychological Skills Training, along with all the variables brought into play and accounted for by the current state of modern Psychology of Excellence, as well as the growing field of Positive Psychology, are not likely to reach this goal. As mentioned in the previous chapter, these approaches tend to entail the addition of discursive mental phenomena. As a result such approaches, in essence, could be accused of responding to a subtraction problem by performing addition.

**i. Shamatha Without a Sign**

Within the aforementioned contexts, then, the shamatha practice that most explicitly entails subtraction is a logical choice. This practice is referred to as “Shamatha without a Sign,” or “Shamatha Without an Object,” but also as “Awareness of Awareness” or even “Consciousness of Being Conscious.” These titles may, at first
glance, seem to undermine the case for shamatha as a precision mental training and research tool. A solid explanation of this method in application, however, may well help to clear up many of the misunderstandings regarding western ideas about “focusing on no object,” and the like. Indeed, the lore surrounding “awareness,” and practices entailing “pure not doing” is significant.

One of the most well known western Zen Roshis alive today has said, when asked about such things, “Yes, in Zen there is another method of meditation other than following the breath and Koan work, called shikan taza or just sitting. But it’s so hard even I don’t try to do it.” One encounters problems when attempting to focus on something without properly identifying it. Furthermore, in contrast to such advanced practices as shikan taza, shamatha practice requires that one have a specific object upon which to train mindfulness and introspection - to the exclusion of all other perceived phenomena.

Awareness is not some entity that must remain in the realm of conceptual designation or metaphysical pontification. Awareness is an empirical fact of existence. We know that we can feel the paper in our hands as we read this document. But what feels it? With very little serious investigation one can come to know that we can hear, see – even taste, touch, and smell mental phenomena - but with what do we do this? The very fact that we are aware is undeniable, and this fact is an event that we can observe…with some practice. This event, which is itself not a conventional sign, is the object within “Shamatha Without a Sign.” Because observing an event is more of a process, even an investigation, than is observing a more tangible object such as the breath, it has been referred to as an “inquiry.” (e.g., Maharshi, 2006a, 2006b)
As with any chosen object within shamatha practice, one must get to know this event. Becoming familiar with one’s chosen shamatha object is a very real part of what makes shamatha a practice. In the case of Shamatha Without a Sign, the object has myriad advantages for those seeking excellence in any endeavor.

First and foremost, once one truly gets to know this practice, the object can be attended to at all times, without exception, and without creating marked decrement in one’s engagement. No mental phenomenon, physical activity, television or turmoil can possibly obscure it. The very event of being aware is what allows all of these things to manifest. As such, every appearance to the mind or senses only affirms the “object” of awareness. In fact awareness, or consciousness, could be defined most simply in this context as *that which is aware* (cognizant) of all mental and physical phenomena or, *that which allows* these phenomena to manifest through its luminosity. This makes it ideal as an object along the full path to shamatha. As the twentieth century Indian sage, Nisargadatta Maharaj once stated, “You are not in the body, the body is in you! The mind is in you. They happen to you...” (Maharaj 1981, p. 167)

Experientially, being present with the event of awareness, to whatever degree, is also a causal factor in producing several of the nine elements of flow experience that Mihalyi Csikszentmihalyi originally laid out, and that researchers have repeatedly validated since his original assertions. These dynamics will be discussed in greater detail in chapter six.

Furthermore, this practice is explicitly one of discovery, rather than development. While maintaining the advantages of being highly understandable by modern people, across cultures, it also has all the qualities of those more ambiguous practices that
modern people tend to be drawn towards. Namely, there is no need for an anxious sense of striving to develop something. In fact, when practicing Awareness of Awareness, one is taking the “fruition as the path,” so to speak (Wallace, 2006). The awareness that can be perceived, right now, is in fact the end goal of shamatha practice: the substrate consciousness. This endpoint, within the formal context of attending to a shamatha object, is simply obscured by our own grasping and self-identification with signs. Herein lies a profound difference between “Shamatha Without an Object,” and all shamatha practices with an object.

This profound difference is also responsible for another advantage, with regard to the practice’s application to pursuit of excellence. Again, of all shamatha objects, this one may be the most explicit teacher of subtraction – and it has unparalleled cross-cultural respect and renown for this purpose (e.g., Bodhi, 2005; Chagme, 1998; Laird, 2006; Padmasambhava, 1998;)

Though not always used within the context of a shamatha practice (i.e. to train attention through perfecting mindfulness and introspection) the event of awareness is one of many meditative objects that has been used in almost every contemplative tradition – ancient and modern. It has been used effectively as a meditation object by Christian contemplatives on Mt. Sainai and Mount Aethos, Kabbalists in the Jewish Tradition and Sufi Saints in the Islamic Tradition, as well as Taoists, Advaita Vedanta Hindus, and Buddhists of all contemplative creeds (Chagme, 2000; Dudjom Rinpoche, 1998; Fuang; Keating, 2001; Laird, 2006; Maha Boowa, 1987; Maharaj, 1981; Maharshi, 2006a; Matt, 1990; Merrell-Wolff, 2003; Tzu, 1961/2000; Wallace, 2005, 2009). It therefore
completely shatters Csikszentmihalyi’s notion of contemplative practice as culturally bound. The modern Christian contemplative Martin Laird states:

Gradually we see the simplest of facts, so simple and yet we have missed it all these years: our thoughts and feelings appear in something deeper, in a great vastness. This vastness is not yet another object of awareness but the ground of awareness itself…The thoughts and feelings that have brought us such delight and sorrow are also manifestations of this luminous vastness, waves of the ocean, branches of the vine. And who is aware of these distracting thoughts? Shift your attention from the distraction to the awareness itself, to the awareing. (Laird 2006, p. 93)

Perhaps the most well-known twentieth century sage around the world, Ramana Maharshi, when asked how to make the mind quiescent went so far as to say:

Other than inquiry, there are no adequate means. If through other means it is sought to control the mind, the mind will appear to be controlled, but will again go forth. (Maharshi 2006b, p. 39)

In the context of such advanced practices as Dzogchen, Mahamudra, and Shikan Taza, one searches for this event of awareness in the broadest field possible, without excluding anything – including all the sensory and mental input we perceive. Such a practice, with no boundaries or ground rules, can easily become a thicket in which to get lost. The practice of Shamatha Without a Sign, however, simplifies that thicket by making the mental realm the singular “in-bounds” area. In order to gain a truly practical, applied feel for this process, the object must first be identified, and from there shamatha practice can begin to flourish.

The following transcript, from a meditation seminar lead by Alan Wallace, provides a solid practical introduction to the object of awareness (Wallace, 2008). Wallace begins with some theoretical background in response to questions about identifying the object, and then goes directly into a taste of the meditation itself. These instructions can best be carried out by sitting somewhere that is sustainably comfortable.
One need not adopt any esoteric meditation posture, so long the posture one adopts is reasonably well aligned. This can be done in an easy chair, lying on a thick carpet, or even on top of a bed. Being comfortable is important.

Good, deep relaxation is the very first step toward effective shamatha practice. The levels of relaxation required at this initial step are very similar to those attained in common forms of autogenic training or hypnosis utilized by those within the Psychology of Excellence. But in such training relaxation is commonly the only end pursued, and that end, in and of itself, is a relatively dead-end.

Deep relaxation is only the first step in Shamatha Without a Sign. That relaxation is simply a servant - a necessary enabler of effective mindfulness and introspection - and once we have it we must begin working for stability on our object. Vividness will come with time, and with it still deeper relaxation. First, one must become acquainted with the object and the practice as a whole:

ii. Transcript of Guidance in Shamatha Without a Sign (Wallace, 2008)

Background
“Q: For the last few years I’ve listened to terms like ‘Awareness of Awareness’, ‘turning awareness in on awareness’, and I had the sense that it was like a snake trying to eat its own tail and I just…didn’t get it…
A: Tell me now – “Awareness of Awareness” - it is elusive? Or is it utterly simple, and easy?
Q: Well, if what I just did is that, then it’s utterly simple. And if it’s not, then it’s still elusive.
A: Well, there are different practices here. The practice of awareness can be as simple as a shamatha practice. Simply stabilizing, resting in the clarity of awareness…being aware of awareness happening. So it can be just that simple…
…In terms of awareness of awareness it would be very good if you had total clarity of that – because it’s really within reach. Let alone realization of insight – that’s another order of magnitude. Realizing Rigpa - Pristine Awareness – that’s another order of magnitude. But this – awareness of awareness - that’s definitely within reach, right now, that’s not too hard. And that’s just – right now
you can do it, there’s no question in my mind you can do it – and it’s not hard. It’s mostly not doing, and it’s simply being aware of something that’s already taking place… and it doesn’t stop. And without that there wouldn’t be anything at all. It’s just that flow of knowing. And you don’t even need any appearances to know there’s a flow of knowing. You could be sitting in a total vacuum, and still know, ‘vacuum’. So that knowing is there before any thought arises, before there’s any appearance, before there’s any embellishment – before the awareness goes out and attaches onto something; launches out – already there… And you don’t need to do anything at all. It’s mostly just not doing, and simply staying home… There it is… it’s knowing… right? You can see it right now, can’t you?

Q: I think so.
A: Yeah - but you don’t need to think. It’s prior to thinking. It’s prior to intellectually recognizing. There’s something prior to that, more basic. Before it launches into conceptualization or inference, before it attaches to a memory or an appearance and so forth. There’s already something taking place and it just is relentless – it’s unceasing. And without that you wouldn’t exist at all. Without that there wouldn’t be anything at all. But it has no gender, it has no age, it’s not a person. It’s just there. Is that clear?

…

Q: I think so…
Q #2: Alan, I have a question along the same lines, cause I don’t have it. Awareness often is with content, and if I’m aware of being aware of content, of a thought - aware that I’m thinking a thought – is that awareness of awareness? Or is that… do you just want pure awareness, with no thought? I mean, I am aware sometimes that I have a blank mind. And then sometimes I - just thinking about my awareness is a concept of awareness. I don’t know if you know what I’m talking about.
A: Oh, of course. Sure - that’s not hard - nothing hard there.
Q#2: When thoughts arise in this practice – are you just aware that the thought is arising? Aware that you’re aware of the thought?
A: You can do that.
Q#2: Or do you release it? I don’t know what to do.
A: Yeah… it all depends on what you want to do. There are different practices, so there’s no one right way. But for the “Awareness of Awareness” [formal shamatha practice] … umm… you’re just not interested in anything else. You’re not interested in, you don’t take note of, you don’t give your attention to anything that appears to your awareness. Because there’s already something much more fascinating than that. In a way, I mean, I actually find it much more fascinating than the comings and goings of this and that – this thought and that thought, this appearance, that appearance - easy come, easy go!

But there’s something more primordial here, something unceasing… Because it just can’t cease – there’s nothing you can do. You can take the biggest hammer in the world and just try to smash it into… like if you tried to take space, and like ‘ok space I can’t stand you’ and trying to smash the space so it would stop.
So what do you do [in the formal shamatha practice]? I think mostly you relax…Mostly you just let go of all the doing that you were doing. And it’s very compulsive. But relax more deeply. This is why we take it incrementally…So lets do it right now, you and me. Anyone else who wants to – this’ll be very short. But proceed with confidence – there’s nothing here you can’t do! I’m not here to aggravate people, make them frustrated by giving them too difficult things to do. This is not so difficult.

**Taste of Formal Meditation (With an Incremental Approach)**

So mindfulness of breathing – just take it in the whole body. Here’s the body breathing…let your awareness be nice and diffuse, just permeate the body. That field. That ripple effect of the breathing as it ripples through the body. Rippling with the in-breath. Rippling with the out-breath. You can do that.

Then you can re-direct your attention to the space of the mind. Just thoughts, images – whatever comes up. Just do that for a minute.

And then there are these little intervals between the thoughts. Sometimes they may be a bit longer – several seconds. Where as you’re attending to the space of the mind, there’s no distinct or identifiable content.

But you’re still aware of something - you didn’t suddenly go unconscious or blank out. You’re just as aware as you were before. But now you’re aware of more of an absence than a presence. But the absence is still there: That space between thoughts.

So…you with me so far?

Q#2: Yep.

A: Good! It’s not hard, is it?

Q#2: No

A: Good. So now lets just kind of - the thoughts aren’t all that interesting, they’re just kind of chitchat. Lets take more interest in those interludes between the thoughts. Space between the thoughts. Space-time….

It’s very restful. Quite still.

You are aware of something. Kind of a vacuity, emptiness…

Now there’s something else going on. There’s not only that vacuity, that space...There’s also an awareness of it. There’s an ongoing flow of knowing…

Now just reaaaallly relax your shoulders. Relax your face. Set your mind utterly at ease. And let your awareness not even go out to the space. But like sitting back in a nice easy, comfy chair. Let your awareness kind of sit back…rest in it’s own space. Not even the space that’s appearing to it. Jusst sit back and go nowhere.
And there’s something happening here. It’s just being aware. Ready to be aware of anything that comes up. But even if nothing comes up – not even empty space…
There’s still awareness. It doesn’t stop.

So you can just rest there, and be aware of what’s at home.

What comes up…?
Q#2: Umm…empty space.
A: Empty space – now aren’t you aware of the empty space?
Q: Yes.
A: Good. So now why not, not extend yourself to being aware of the empty space…but just rest back. Throttle back. And note that when there was an awareness of empty space, there was an awareness there whether or not there was empty space. The space could have been filled, there could have been thoughts – it could have directed to visual imagery. But there was already awareness. Let it just rest right where it already was, without even extending itself to the space…Don’t you have an immediate sense of just awareness happening?
Q: Yes.
A: Good. Really simple, isn’t it?
Q: It’s clear now.
A: Good! And it’s really easy isn’t it?
Q: Yea…
A: Good.
Q: Very helpful, thank you…
A: Cool! Good…Two down! [laughter] It’s wonderful to see how easy it is, isn’t it? Kind of unclutter it, don’t make it complicated.
Q: My mind’s always trying, you know, complexity…
A: Yea, but there it is waiting - the sweetness of it already, just coming home. After a long, arduous journey.

### iii. Understanding the Experience

These questioners, at the time of the preceding recording, had just taken their first step towards successful practice of Shamatha Without a Sign. Once the object is identified, the length of time one is able to stay with it is the measure of *mindfulness*. The degree to which one is able to recognize being on the object, as well as off the object, is the measure of one’s budding *introspection*. One need only set aside, perhaps, five minutes in order to engage in an initial formal shamatha session – in which this object is
attended to, and returned to, when attention wanders. Success may improve significantly after adding just three or four five-minute sessions, such as these, to a regular daily schedule. The more deeply one is able to relax, the more smoothly the session will go. There is but one criterion to keep in mind with regard to over-relaxation, within the context of this practice. The 8th Century contemplative, Padmasambhava, puts it as follows:

If *Samadhi* arises in which there is nothing of which you can say, ‘This is meditation,’ and ‘This is conceptualization,’ this is the problem of oblivion …Recognize the flaws of quiescence and eliminate them right away. (Padmasambhava 1998, p. 106-109)

This is, of course, a subjective description of how laxity is experienced in the course of this unique practice. The feeling Padmasambhava describes will occur on more and more subtle levels, as one moves beyond coarse laxity to experiencing primarily medium laxity, and then on to subtle laxity. Coarse, medium, and subtle excitation too, have a unique way of manifesting in this practice when one truly gets to know the object well, just as Wallace described in the above transcription. The twentieth century head of the Tibetan Nyingma Lineage, Dudjom Rinpoche, describes excitation in this practice as follows:

At first, releasing thoughts by recognizing them is like meeting someone you already know. In the interim, thoughts release themselves like the unraveling of the knots in a snake. Finally, thoughts are released without their doing any good or harm, like a thief in an empty house. Those three phases occur sequentially… (Dudjom Rinpoche 1998, p. 10)

While simply getting to know the object during formal sessions, these similes may not apply to one’s experience, but the more that one comes to know this “simple fact” of “awareing,” as Laird put it, these experientially-based instructions will become germane.

At that point, by keeping to the simple guidelines laid out previously, practice will
begin to flourish, and the length of sessions can be gradually increased. Among those full-time contemplatives practicing under Wallace’s guidance, some are able to engage with hours-long sessions and never once lose continuity with their object. For them, this is now a blissful, nonconceptual experience - imbued with a marked sense of the sheer luminosity of awareness itself. This kind of attention can have truly revolutionizing effects on one’s engagement with all activities. Still, marked improvements in one’s engagement habits can be made by simply working up to one or two 24-minute sessions – in the midst of a fully engaged way of life.

Additionally, as one works diligently in this practice, it will become easier and easier to recognize that same event of awareness outside formal sessions. Doing so will have an effect on one’s ability to voluntarily enter flow-like engagement. To fully understand this dynamic one should, as the Buddha said, “come and see.” Nonetheless, throughout the following chapters, more details about this dynamic will be unpacked – as practically as possible. First, however, more detail will likely be needed to make the experience of formal shamatha sessions as beneficial as possible, for all those hoping to develop a flourishing practice for application to performance, research, personal benefit, or in an effort to increase their ability to benefit others.
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Chapter 5: Supportive Factors for Shamatha Practice

“What’s more, all these experiences of pleasure and pain
Are not brought about by anyone but yourself.
They are produced by your own actions, good and bad.
Once you know this, it is crucial that you act accordingly,
Without confusing what should be adopted and abandoned.”
-Chatral Rinpoche in his *Words of Advice* for Practitioners

Some of those who begin earnestly practicing Shamatha Without a Sign may find that it sinks in rather easily. These people may, either through a naturally keen skill in observation, or by virtue of the way in which they live their lives, simply begin swimming in awareness - just as a captured fish would joyfully swim out into the depths of a body of water, after being released. But, as Nisargadatta Maharaj once said,

...not everybody is so fortunate. [laxity] and [excitation] often stand in the way and until they are seen and removed, the progress is slow. All those who have realized on the spot, by mere touch, look or thought, have been ripe for it. But such are very few. The majority needs some time for ripening. (Maharaj, 1981, p154)

The majority of practitioners will find that formal sessions become nearly impossible during a variety of difficult times. In the midst of a high-stimulation lifestyle, the time between sessions will easily carry them away in uncontrollably compulsive grasping and identification with a great many things. Often, the prospect of simply identifying awareness will seem untenable, because the mind has become so out of kilter. As one’s ability to rest in awareness deepens, and strides are made towards sustaining calm attention – free from excitation and laxity in whatever degree – the sense of these “returns to reification” will seem increasingly painful and pointless. What can be done to enable “ripening”? First and foremost, one must begin to tone life down.

Whether one faces the bright, hot stage-lights or the starting blocks, the service line or the deadline, ipods can almost invariably not be brought to the finish. A classic truth, which
surfaces with great clarity through shamatha practice, is that individuals are training their minds all the time.

Therefore, one must become attentive to how they are training the mind. Is it being trained to be attentive only in the midst of voluntarily consumed loud or highly stimulating electronic media, or in the midst of whatever the environment provides on its own? If flow is to be reproducible across all the conditions one encounters, mental variables may need to be studied and trained in isolation, according to many contemplatives (e.g., Buddhaghosa, 1999; Wallace, 2006). The general current of modern society makes this act almost impossible, a fact which may have contributed to Csikszentmihalyi’s original thoughts on the general inconsistency of voluntary entrance into flow.

i. Making Provision for Quiet and Solitude

In Csikszentmihalyi’s original landmark text, *Flow*, one of the most pronounced recommendations he makes for entering flow consistently is to spend extended periods in quietude, and general solitude (Csikszentmihalyi, 1990). Indeed, quietude and solitude are all the more essential for the development of an advanced shamatha practice. If one wishes to become much more than a casual drinker of awareness, and its potential for living flow, periods of solitude will need to be sought out. With regard to reaching the actual achievement of shamatha, one must seek out an environment that is “radically simplified,” quiet, and almost completely isolated from the noise and confusion of modern life (Wallace, 2006).

During extended periods of genuine solitude, when life becomes radically
simplified, there can often be a sense that one’s regular levels of stimulation are
intimately connected with baseline levels of attention. On a still deeper level, within the
context of shamatha training, there is a distinct sense that regularly immersing oneself in
long-term, almost exclusively high stimulation contexts produces a faculty of attention
that is generally dysfunctional.

While many researchers have proposed similar understandings of the relationship
between stimulation and attention, there has been very little work done on the subject
(e.g., Posner, 2006; Saunders, 1996). When asked about this phenomenon, one of the
world’s most recognized authorities on attention – Michael Posner – stated that such a
relationship seemed plausible, and that one might begin supporting it by exposing groups
to relatively brief, intense stimulation to see if any changes in attention occur (Posner,
2006).

One such preliminary study, which has already been completed, monitored the
effects of spending time in a discotheque (Bergomi, Rovesti, & Vivoli, 1991). These
researchers found that time in such an environment did impair sensory systems, although
attention per se was not directly studied.

Interesting parallels exist, however, within the Attention Deficit Hyperactivity
Disorder (ADHD) literature. Early research often indicated that those afflicted with
ADHD had lower levels of dopamine in the brain, as well as generalized levels of low
default arousal (e.g., Mawson and Mawson, 1977). Some theorized that these individuals
require higher levels of sensory input to feel normal, or perform normally, in any given
context (Mawson and Mawson, 1977). More recent data demonstrate that the areas of
brain activation associated with ADHD are markedly more complex, and specific, than
originally thought (e.g., Bandich et al, 2009). Nonetheless, much of the positron emission tomography (PET), functional magnetic resonance imaging (fMRI), and electroencephalogram (EEG) data, as well as measurements of neurotransmitters to date, generally support the notion that individuals with ADHD might require greater levels of activation/arousal in order to maintain sustained attention (e.g., Bandich et al, 2009; Loo et al, 2009; Sikstrom & Goran, 2007). Genetics are often asserted as a major factor in the development of this greater need for stimulation to enable attention. However, chronic over-stimulation is now being discussed as a potentially important factor as well (e.g., Nigg, 2006). Indeed, chronic over-stimulation may be playing a major role in the alarming spread of ADHD diagnoses.

Additionally, there is a small body of research on the attentional effects of various modes of drug use – many of which are essentially the voluntary induction of high stimulation. Such literature supports these ideas on a very basic level. Lundqvist (2005) conducted a literature review of this area, and found that many studies indicated deleterious effects of stimulant drugs such as amphetamine, methamphetamine, MDMA, and cocaine on attention, memory and processing speed, and general impairment of executive functioning. Additionally, work has been done on administering such drugs to rats (Crawford et al., 2006) and although attention was not one of the dependant variables in this study, changes in the brain occurred which are indicative of decrements in attention and normal functioning. Posner has suggested, however, that there may be confounding variables involved with applying lab rodent work to such ideas, as some such studies merely compare lab raised (defined as “deprived”) and more normally raised populations (defined as “enriched”) (Posner, 2006).
Overall, the totality of current scientific findings generally support - and at the very least do not conflict with - the contemplative assertion that removing oneself from high levels of stimulation may be essential for effectively training attention and task immersion - albeit not directly. A great deal more work would need to be done to lend quality scientific support to the common sense, experientially based notion that high-levels of stimulation may be damaging to the cultivation of attention. However, contemplatives for millennia have been empirically testing the converse assertion (i.e. that periods of solitude and low-stimulation might be beneficial for gaining the ability to attend and function well, under normal circumstances.) It is generally asserted that seeking out sustained presence in such an environment is essential for progressing much beyond the third or fourth attentional stage of shamatha practice (Wallace, 2006).

But for those who are just beginning, or are simply unable to dedicate long stretches of time to more serious, single-pointed integration of shamatha practice with the pursuit of excellence, there is much that can be done. One must simply begin by searching out and lessening the most over-stimulating events in ones life and, to whatever degree one is able, find ways of toning these occurrences down or eliminating them entirely. This will be a progressive process, and one that yields much more calm, attentive, and creative mental baseline conditions as time passes.

ii. Investigating the Effects of Behavior on Mental Balance

Beyond developing a more calm, contemplatively oriented life-style, one should take whatever level of mindfulness and introspection is developed in formal practice and begin applying it to understanding the other most obvious causes and conditions that
erode quiescence.

What is found during such investigation? Aside from observing the detrimental effects of rampant sensory desires and chronic over-stimulation on attention, the importance of ethical conduct becomes apparent. Indeed, all sport and performance governing bodies – right on up to the International Olympic Committee (IOC) – consider ethics an essential aspect of healthy and productive performance. After all, without them, real opportunities for sport competition would not exist, and therefore no one within the realm of competitive interaction could ever truly seek greatness.

R. Scott Kretchmar, among the most widely read sport philosophers, places an emphasis on ethics for an entirely different reason, however. Citing such philosophers as John Stuart Mill and Peter Singer, he makes a case for ethics almost as a form of performance enhancement – even life enhancement. In the most concrete of ways, living ethically is good – not just for those around us, but also ultimately for ourselves. This applies, according to Kretchmar, both directly within competitive environments and outside of them (e.g., Kretchmar, 1994).

That very fact – and it is a factual, valid, and repeatable observation that has been confirmed over millennia of rigorous contemplative hypothesis testing – is brought home with particular poignancy inside the context of shamatha practice, with but a little bit of observation. Barring perhaps only severe psychopaths (although the degree to which such people could develop quiescence is questionable) whatever level of calm and peace reached within the mind will be disrupted by un-ethical action. One can begin to see, with even just a glimmering of stability in awareness, the rippling disruptions caused by non-virtuous actions. One need not be bothered with metaphors here. This is a
phenomenon that must be observed – after gaining some relatively consistent depth of mindfulness and introspection. After all, without developing any consistency of mindfulness or introspection – through whatever means - one may never get a chance to \textit{have} such equilibrium disrupted.

Some of those individuals already engaged in such practice, under Wallace’s guidance, have come to feel that there is a ceiling created by one’s actions, so to speak, on the degree to which one is able to maintain whatever calm, flow-like focus is developed during formal sessions. One can come to recognize new levels of this ceiling as formal shamatha practice deepens.

Once one leaves the confines of a formal meditation session and takes action, there will be effects on the mind. Virtuous actions – not only of body, but also of speech and mind - may have an immediate joyful effect, if they are not diluted by other phenomena. Neutral actions tend to have little or no effect. While non-virtuous, or unethical actions, will immediately disrupt whatever degree of mental balance one feels at a given moment. Deeply non-virtuous actions committed by oneself will prevent even the slightest of flow experiences, while slightly non-virtuous actions will prevent the deepest of flow experiences from occurring.

These ideas may not only be rejected, but also criticized on the grounds that very little understanding exists of what is, in fact, ethical. Although there has been some work done showing that a basic consensus about ethics exists between cultures (Kidder, 1991), many will claim that ethics are relative to context and culture – just as Csikszentmihalyi claims that flow is relative to context and culture. One may often feel, and justifiably so, that there is little to no reliable guidance available when it comes to deciding what is, in
fact, ethical. But the existence of virtuous, neutral, and non-virtuous actions in this context is purely a matter of direct experience, and needs no philosophical or dogmatic support. Such support is all that non-contemplative resources can provide.

iii. The Necessity of Empirical Ethics: The Case of Immanuel Kant

Immanuel Kant may have come reasonably close to positing the existence of a substrate consciousness, perhaps even facets of our consciousness that contemplatives assert are much deeper, when he provided a radical definition for reason in his work on the transcendental dialectic, within the magnum opus tome *A Critique of Pure Reason*. Reason, in this context, is an infallible and ever-present faculty, which operates unfettered by thought, is without defiling connections to the world of sensory determinism, and presents, in a miraculous fashion, the opportunity for freedom. This freedom is born of spontaneously emerging ideas, which flow from reason’s depths to affect thought and organize consciousness towards ends more suitable than those dictated by sensory and mental phenomena. (Kant, 1998a; Palmer-Angell, 2006)

Even Kant, however, reached his conclusions primarily through logic and reasoning – not through direct experience. In the end, the world-view Kant proposed, in the broader context of his transcendental dialectic, sounded a hairs’ width away from solipsism, (the assertion that nothing can be known to exist outside of ourselves) which is perhaps the most untenable of all philosophical stances. He was subsequently criticized heavily.

Nonetheless, Kant’s assertions were much more sophisticated than those typically accompanying solipsism. Rather, he asserted: if one’s sole basis for access to the world is via that which is aware of it (our faculties of “sensibility” and, ultimately, “reason”)
then one has no *direct* access to the objects perceived. He never asserted that the objects of perception – including other people and living creatures – could not be known to exist. Nor did his work challenge the idea that other beings are aware, through sensibility and reason, in the same real and valid way that oneself is aware. The simple, undeniable fact that they are is the very proof of their existence.

Interestingly though, it was only after he gave birth to the complex, highly sound logical proofs leading to this point, that he began investing himself earnestly in the realm of ethics. Despite knowing that his work did not imply solipsism, he appeared to realize that the entire conventional logic and reason-based foundation for common ethics - which he cherished and valued – was significantly compromised by his own superior work in the *Critique of Pure Reason* (Kant, 1998b).

Unfortunately, his subsequent work on ethics during those latter years, as well, was not firmly founded in direct, rigorous observation of his own experiential world (Kant, 1998b). Kant’s struggles to refute the implications of his own work failed to produce an ethical treatise of much value, and his writings indicate that he was aware of this fact. Furthermore, he never truly came to recognize the role of attention in human functioning, or in the manifestation of both *reason* and *sensibility* (Palmer-Angell, 2006). The rest of his life was largely a descent into madness. According to many highly respected Kantian scholars, he spent those years having his butler tie him up in sheets at night so that he would not masturbate. What Kant’s purely intellectual work suggested, which so irrevocably challenged the logical foundations of ethics, is - in experience – one of the greatest tools for understanding virtue he could have ever come across. Ethics, as well as the study of consciousness, should be undertaken as empirical matters.
iv. First-Person Research on Ethics: Hypotheses

One must question whether there are any areas of study that affect quality of life in a community, even the world-community, more than ethics. And yet, modern science constantly strives to maintain not only an “ethically neutral” stance on data collection but also on the topics investigated. Many in the world scientific community have already recognized the obvious folly of this position, and as a result there are now entire ethical subfields cropping up in various disciplines – from medicine to sport.

But these sub-disciplines, even in their most robust forms, are attacking mental issues from largely physical perspectives. It is indeed true that many actions may, through physical causes and conditions, create significant post-hoc suffering for self and others in the long run. Through quality understanding and investigation of physical variables and inter-relationships, one can come to learn a great deal about how to prevent, or simply minimize, the disastrous effects that modern scientific research and technical applications can sometimes have on personal, communal, and global levels.

Still, it may prove useful for such work to take place along-side first-person, subjective research - for none of one’s actions exist without a motivation. Often, actions that will create suffering over the long-term are tainted by some form of non-virtue while they are being conducted. Motivations that are primarily influenced by greed, concern over professional gain and loss, reputation and ill-repute, as well as the basic hunger for grant money may all now be implicit in the vast majority of research being conducted. Such underlying motivations may affect the quality and implications of the research, to whatever degree they are present – just as motivations primarily influenced by a genuine
desire to benefit those who are ill or suffering, or to create sustainable solutions to society’s needs will unavoidably influence the effects of that work. Nonetheless, in many cases, the introspective capacity of most modern people, including scientific researchers, may be so underdeveloped that they are unaware of all but the coarsest manifestations of their motivations. This is, unfortunately, one of the shortcomings of modern “scientific objectivity.”

Observing the underlying connative impulses behind any given action can be a fairly difficult task. Doing this work accurately requires a relatively sustained, clear faculty of attention, and a well-developed ability to observe one’s own mind. It stands to reason that gaining these skills could help countless scientists reach their research goals more effectively.

Encouragingly, this kind of first-person approach has now been taken up, to some degree, by modern philosophers in the growing field of “Experimental Philosophy” (e.g., Appiah, 2008; Knobe & Nichols, 2008). These bold, cross-disciplinary academics are using metacognition in an attempt to find answers to age-old, yet unresolved philosophical questions about ethics as well as metaphysics and other realms. But these philosophers, as well as their “experimental participants” are amateur observers of the mind with no attentional training. They are also conducting their research primarily under the modern psychological definition of metacognition, which, as mentioned earlier, understands metacognitive action as “thinking about one’s thoughts.”

Such researchers might benefit significantly from training attention, as a tool for the self-observation of mental cause and effect. With a community of well-trained researchers working together in this area, these efforts could not only develop profoundly
greater reliability and validity, but also statistical significance and a robust independent concurrence. Furthermore, if it were done well, this work could easily and beneficially become nested in all other scientific disciplines (see chapter six for a more in depth discussion of this topic.)

Not surprisingly, the world’s contemplative traditions – particularly the world’s Samadhi-based contemplative traditions, could offer a wealth of working hypotheses to help begin such a field. These hypotheses have been proven valid and reliable over millennia of work in rigorous contemplative research communities, many of which have developed attention to levels of refinement that are unprecedented in the Western world.

Within Buddhist communities of this kind, the most basic hypotheses regarding non-virtue pertain to what are commonly known as “mental afflictions.” These are habitual patterns within the mind which, by nature, create suffering. The most basic category of mental afflictions is commonly known as “The Five Poisons,” or “Primary Mental Afflictions”: craving, aversion, delusion, pride, and envy. Coming to know these five phenomena, and their relationship to one’s own actions of body, speech and mind, is understood as indispensable, from the Buddhist standpoint, for reproducing deep flow experiences– both within formal shamatha sessions, and in all contexts outside those sessions. Furthermore, if one is not able to recognize these five phenomena as they manifest in one’s mind, it is likely that shamatha practice will be forever swept away by them, in all circumstances but the most ideal. This abduction occurs because these are especially “sticky” mental phenomena, so to speak – so powerful that they are highly easy to grasp onto, and identify with. Improving ethical discipline is both essential for serious contemplative attention training, and – at the highest levels - dependent upon
serious attention training. The two are beautifully interconnected.

Many of the mental phenomena one encounters will be relatively easy to dismiss and dispense, especially under normal circumstances. But even under normal circumstances, the five poisons will be formidable judo opponents. This problem is greatly exacerbated when things go wrong in one’s life or when entering a high-pressure period – whether competition, personal confrontation or otherwise. These are the times when mental technology can be most easily be stolen by craving, hostility, delusion, pride, or envy.

In order to progress in shamatha practice, and grow one’s general sense of wellbeing, one must learn to recognize these Primary Mental Afflictions in the same way that a good athletic trainer knows and can recognize an injury. Even student athletic trainers - with a solid foundation of knowledge and understanding, along with a little observation and palpation - can know exactly what ligaments have been injured in an acute event, and tell whether they are strained, sprained, or possibly accompanied by a broken bone.

The very best athletic trainers, however, can watch a practice or competition – perhaps even simply conduct an examination in the training room – and aide in preventing such injuries from happening. Of course, the kind of trainers hired on professional and collegiate levels may have put in tens of thousands of hours of training – as have those contemplatives who are simply able to live in and from awareness.

But first one must get to know the basics. Some may need to get “injured” once or twice before truly recognizing even relatively coarse occasions of anger and the subsequent effects on one’s mind as well as the other people in one’s surroundings. But
once anger is recognized as anger, and its effects are observed, there is no going back. Even if one continues to get angry, and act out of anger, one will never again be able to see such occasions in the same way. Furthermore, with some diligent practice, one will begin to be able to see anger as it arises in the mind, and catch it before it spews out into the world. Anger is, of course, among the coarsest examples of a mental affliction, and many ethical people with no contemplative training have nearly eliminated anger from their speech and action. But if one could learn to recognize and dispense with even the coarsest level of all the five poisons – not only in speech and action, but also in the mind - one’s quality of life, and one’s potential for flow-like levels of engagement, would be considerably improved.

This skill will be required for those hoping to progress along the path toward shamatha, and towards enabling a consistent flow-like immersion that is coupled with deeper senses of well-being. Those who wish to conduct rigorous, first-person research into ethics will also fail without such a skill base. For both of these categories, as well as for individuals who find themselves somewhere in between, a clear presentation of the “Eight Mundane Concerns” and the “Five Primary Mental Afflictions” will be indispensable.

a. The Eight Mundane Concerns

These eight are: Gain and loss, pleasure and pain, praise and blame, reputation and ill-repute. Most normal human beings will have an affinity with the positive phenomena in these pairs, and so they are generally listed under the broad category of “craving” or “attachment”. Similarly, most people will be averse to the negative
phenomena in these pairs (i.e. loss, pain, blame and ill-repute), and so they are generally categorized under “aversion”. Nonetheless, it is generally helpful to list these eight up front as phenomena to watch out for, as they tend to be so explicitly tangled in our thoughts and behavior. Concern over these phenomena – each of which is utterly transient and largely beyond our control, in the final analysis – is a major source of suffering and anxiety. Upon simple investigation, these anxious concerns are as self-explanatory as they are destructive.

During the moments in which one is unable to stay on - or perhaps even find - the object within formal shamatha practice, these eight sources of anxiety are likely involved. At the most fundamental level, this is simply a manifestation of grasping, but grasping occurs particularly easily when gain or loss, pleasure or pain, praise and blame, reputation and ill-repute are involved. The effects of these eight deserve extensive and rigorous investigation by modern researchers. Anyone interested in developing very far along the path to shamatha, however, must get to know them and be able to identify them. These are mental sprains, sometimes strains, and they can even develop into breaks if they are not caught early on.

Some cautionary statements are required here for anyone wishing to conduct such investigation, but especially for those engaged in a personal investigation:

First and foremost, this is a gentle process. One should not be too quick to dismiss completely the greater context in which these phenomena arise. For us, situations are real. Aspirations for optimal functioning, excellence, and joy are valid. The desire to avoid suffering is profoundly correct. Furthermore, there are indeed things that need to be dealt with: people who need care, problems that must be solved, and so on. But the
ways in which these eight concerns are vomited - and the process is analogous to involuntary re-gurgitation, in almost all respects - onto such reasonable aspirations is, upon investigation, completely useless and counterproductive (Gentry, 2009).

Moreover, self-kindness is essential. There is no judgment involved here. “You” are not the entanglement you see. As Nisargadatta Maharaj states, “The very act of perceiving shows that you are not what you perceive.” (Maharaj, 1981, p1) As one works with these ideas over time, they will begin to sink in. With some practice in Shamatha Without a Sign, and a little experience in recognizing these Eight Mundane Concerns, the sheer experience of maintaining awareness may yield an entirely new perspective on Jesus’ statement:

Therefore I tell you, do not be anxious about your life…which of you by being anxious can add a cubit to his span of life? If then you are not able to do as small a thing as that, why are you anxious about the rest? …Instead, seek God’s kingdom, and these things shall be yours as well… provide yourselves with purses that do not grow old, with a treasure in the heavens that does not fail, where no thief approaches and no moth destroys. For where your treasure is, there will your heart be also. (Luke 12:22-34)

b. The Five Primary Mental Afflictions

Delusion: Delusion is any fundamental misapprehension of reality. Among these five poisons, delusion yields perhaps the most deep and subtle levels of imbalance, and is in most need of intensive, long-term investigation. It is the affliction that gives rise to all other mental afflictions, because without delusion – or false identification – the very same mental or sensory phenomena have no power to cause unrest and disturbance. Understanding delusion, and eliminating it, lies at the core of all the most advanced contemplative practices. Many serious practitioners will spend whole decades, even a lifetime, working to identify and eliminate delusion’s deepest roots, and it is likely that
our modern culture could benefit profoundly from modern scientific researchers conducting similar investigations.

Within the context of reaching deep flow-like levels of immersion, one may think primarily of delusion as *acting out of ignorance*. On the most basic level, one must recognize the times when one is caught up in thinking that one *knows* something that is simply not known. One should begin to investigate the degree to which this tendency dominates one’s life and what effect its manifestation has.

These instructions are simple enough, but they lead to unexpected places and insights. At the most basic level, such investigation can generate much more consistency of mind within contemplative practice, and in all chosen endeavors, as well as decrease unforeseeably large amounts of suffering caused by one’s actions. How might our external circumstances interact with delusion to create suffering? This is a complex question, opening many deep paradoxes, and one should not attempt to address them only from an intellectual perspective – as mentioned earlier. Investigating delusion should also occur directly, through experience, and through the use of a faculty of attention that is increasingly more and more refined.

**Craving:** There are many different ways in which craving manifests – some coarse and some subtle, some brief in duration and some quite long lasting. The term “craving” does not necessarily refer to all of what is commonly known as desire (another common translation for this term in its original languages.) There are many very positive, virtuous desires that may manifest throughout the course of a given day – including, for example, the desire to have enjoyable, non-harmful interactions with those around oneself, or to
feed and clothe oneself adequately. Craving is a difficult phenomenon to discuss in modern society, because it is overtly engrained in the very fabric of modern culture. Subsequently, coarse, destructive craving tends to be considered quite acceptable as a component of many virtuous actions – such as scientific research. Wallace defines craving as “A kind of desire in which one falsely superimposes agreeable, desirable, pleasure-making qualities upon an object, cognitively screens out its disagreeable qualities, and then desires the object as a true source of pleasure and wellbeing” (Wallace, 2005a).

**Aversion:** Aversion, in contrast to craving, can be defined as inaccurately identifying an object as inherently negative, or even superimposing negative qualities upon it, while at the same time screening or filtering out that objects agreeable, desirable, pleasurable qualities. This can easily lead to hostility or ill will – in which one has the intent to harm another, or takes pleasure in harm done to another. Hostility is often a product of not getting what one craves. But manifestations of aversion – from subtle thoughts of dislike for a particular individual or situation, right on up to screaming rage – will never be helpful in cultivating inner balance and wellbeing. This is simply a hypothesis that requires first-person research. One must investigate aversion, in its many forms and permutations, and discover how it affects one’s wellbeing and, on a more subtle level, the relaxation, stability, and vividness developed within shamatha practice. After years of careful investigation, one may find it difficult to identify a single occasion, where-upon becoming totally identified with aversion has produced any genuine benefit. On a more subtle level, even before aversion manifests in one’s actions, its presence disrupts the
equilibrium of the mind.

**Pride:** Pride is yet another imbalance that runs incredibly deep in modern society. It is the misapprehension of oneself as autonomously or inherently superior, or more important than, other beings or a group of beings. The late Geshe Rabten (2005) stated that pride, “…has the function of preventing the attainment of any higher virtues and of causing one to disrespect and look down upon others. Thereby it leads one to painful and undesirable situations” (Rabten, 2005, p173).

Pride tends to feel good at first, and in many contexts people encourage a certain amount of pride in each other. Among seekers of excellence pride tends to be, in some contexts, “the coin of the realm.” Sometimes being prideful helps to intimidate others, or enhance one’s presence. But the effects of pride, on one’s own performance, should be earnestly investigated. Pride creates myriad imbalances in physical and mental function.

**Envy:** Envy is a hybrid, most notably, of craving and aversion. On a preliminary level, it occurs when one wants something, and does not want others to have it. Sometimes others actually have what one wants, and one simply wishes those individuals did not have this particular thing – whether it be tangible, like an object or spouse, or intangible, such as reputation. Occasionally, one may not even really want what others have, but feel strongly that those others should not have it regardless. Once one begins recognizing the more subtle manifestations of envy in one’s life, the tangled mess that envy creates becomes obvious. It adds untold amounts of unnecessary suffering to romantic relationships and interaction with family and friends – sometimes even people met and
interacted with casually. Just as with the other four Primary Mental Afflictions, when coarser manifestations of envy manifest in actions of body, speech and mind, whatever degree of contact with awareness one has gained will be destroyed, and in need of rebuilding.

c. The Four Immeasurables

In the same way that non-virtue creates imbalance in the mind, virtue can help to restore, maintain, and deepen mental balance. The “Four Immeasurables,” or “Brahma Viharas” as they are referred to in Buddhism, include some of the most basic, universally recognized virtues. These include Loving-Kindness, Compassion, Empathetic Joy, and Impartiality. In contrast to the Primary Mental Afflictions, professional contemplatives assert that, to whatever degree these four phenomena are influencing one’s motivation, the short-term and long-term effects are more likely to be positive.

With regard to counteracting non-virtue and making one’s development within shamatha practice sustainable, these four are indispensable. They are like hired guards that protect one’s mental technology when non-virtue arrives to steal it. Meditation methods meant for actually reproducing and deepening these four virtues within the mind exist and are well refined, but for the current purposes a discussion of these phenomena and their effects, as a basic introduction, will be adequate. Wallace’s contemplative lineage also offers hypotheses regarding the causal mental antecedents that produce these phenomena as well as those which prevent their arising. Given that experimental manipulation and reproduction of these variables has no questionable ethical implications, it may be useful to provide these in the discussion so that research
hypotheses can be more easily formulated, and independent variables can be easily identified.

This kind of experimentation need not be taken up only by researchers. Those working to develop a robust shamatha practice, for any reason - including performance enhancement or reproducing flow in any endeavor - can easily conduct such research themselves with little, if any, risk. To minimize any risk inherent in such manipulation, however, it is common to present the “false facsimiles” - or common misidentifications - of The Four Immeasurables, along with their causes and opposites. These three will be emphasized in the following discussion.

Although, from a modern scientific perspective, these assertions may remain hypotheses for some time into the future, they have already been borne out over millennia of experiential research. Furthermore, those engaged in this research on a personal, non-scientific level, may benefit from some additional, relatively informal treatment of these phenomena. Subsequently, some discussion of the personal dynamics and effects of these phenomena will be included in what follows. This material will be based, primarily, upon the authors’ experience as a contemplative in training under Wallace’s guidance over the last two years, as well as a decade of experience participating in, and investigating athletic interpersonal environments. Wallace’s text *Genuine Happiness*, among others including *The Four Immeasurables: Cultivating a Boundless Heart*, provide a much more in depth explanation of these four phenomena, along with methods for cultivating them through formal contemplative practice.

**Loving Kindness:** is simply a *heartfelt yearning for oneself and others to experience*
happiness and the causes of happiness. This can easily be demonstrated through memory. If one can recall an occasion upon which someone said something genuinely nice about oneself, which was quite obviously sincere (i.e. founded in their accurate, direct observation), then one has felt the initial effects of loving-kindness. Ideally, parent-child, coach-athlete, mentor-student, and all friendships are founded on this emotion.

If one can vividly recall the last time such an emotion was felt for another person, it may be useful to investigate exactly how this emotion manifested itself – both mentally and physically. Loving-kindness is a wonderfully cleansing, healthy phenomenon. The classic hypothesis, forwarded by innumerable contemplative researchers, is that this feeling is caused by seeing the loveable qualities in oneself, or someone else. Simply by looking for, and identifying truly loveable qualities in oneself or another, one can begin reproducing loving-kindness. The degree of insight and sincerity one brings to this process will determine the depth of the subsequent emotion. Without such investigation, loving-kindness can easily be misunderstood as a sense of self-centered attachment – that is, a sense of caring that is limited only to those who bring pleasure, support or other positively regarded things to oneself.

Aside from feelings of loving-kindness for others, an inability to consistently see lovability within oneself will contribute mightily to mundane concern, mental poisons, and failures on the path to personal excellence. When an individual does not deeply feel that they are loveable, they will often seek easy ways to cover up this terrible feeling. Most often, this results in oscillating between idolizing, often envying, those in whom loveable qualities are perceived, and seeking out people who appear to possess very few
of those qualities - subsequently getting high on pride. Through the process of grasping and identification, these acts may sometimes truly improve one’s sense of self-worth - for the time being.

*Loving kindness cannot coexist with forms of ill will.* Hostile desire to “defeat” others, or to make a group of people feel inferior or smaller than oneself, can be somewhat useful for energy and motivation in competition, as previously mentioned. But this approach will not be conducive to the deeper forms of flow-like engagement.

In contrast, competition imbued with mutual respect and loving kindness, but not idolization, can be profoundly beneficial. In such competitive environments, athletes are acutely aware that better performance by their competitors will assist them in breaking through to new levels of excellence. Among well-balanced elite athletes, this feeling is common. In the best of cases, it is reciprocated.

The times at which these feelings are reciprocated, between two or more individuals, are the times when breakthroughs are made and records are set. Investigation of this hypothesis should be at the heart of the emerging research, development, and application of an “Athlete Centered Model” of applied excellence consulting in the 21st century (e.g., Gould, 2002). With the tools of mindfulness and introspection, along with the highly well developed meditative methods for reproducing loving-kindness, such research, development and application is a low hanging fruit. On a personal level, however, all performers, researchers and consultants can explore these relationships for themselves and reap the benefits.

**Compassion:** is the yearning that oneself and others be free of suffering and its causes,
and necessarily involves asking, “what can I do to help!?,” with the sincere desire to do what can be done. In order for this feeling to arise, one need only recognize that oneself, or another person, wishes to be free of suffering. This should never entail a sense of debilitating grief or sorrow. When one recognizes the existence of suffering in a particular person, including oneself, the various ways in which that person is helpless will become obvious. When their helplessness in the face of suffering is recognized, asking what can be done to help often happens spontaneously, and compassion flows forth. Just as it is simply impossible to feel hostility when one is bathed in loving kindness, when one feels compassion for others, cruelty and contempt become impossible.

Compassion, under this definition, is the stuff that great coaches and teams are made of. John Wooden, for example, was a profoundly compassionate man, and the compassionate impulse that he brought to his work had an enormous influence on the success of his teams, which became the most victorious in college basketball history (Wooden, 1997). Given the general lack of understanding and emphasis on compassion in modern culture, it is easy for many to believe that feeling compassion for someone necessitates feeling superior to them. Clearly, this is untrue. Environments where compassion is the norm become places where caring and respect thrive. They become the places spoken about above, in which records are broken. When many athletes think back to the times they were most at ease, and performing their best on the path to excellence, they recognize that they were either the provider or recipient of compassion, on some level, during that time in their lives.

**Empathetic Joy:** *is taking delight in the virtues, successes, and joys of oneself and*
others. This feeling is caused simply by attending to virtues, successes, joys, and the people experiencing them. Doing so is a simple, but profoundly powerful act, and one that is not at all synonymous with taking joy in frivolous, relatively meaningless things.

Again, all individuals intensively training their minds at any given time – whether intentionally or unintentionally - will encounter periods of melancholy or depression. When one attends to failures and mistakes – replaying them endlessly in the mind as if doing so will assist with avoiding such missteps in the future – these acts, and the causes that created them, are actually becoming more and more habituated. Observing non-virtue as it occurs will indeed lead to greater understanding. But once one gains some understanding in this area, and begins to recognize non-virtue in real time, one need not constantly return to those occasions – one’s energy can be much more beneficially spent preventing such occurrences in the present moment. In fact, after one comes to a good, experiential understanding of the worthlessness of non-virtue, it would often be best to forgive these occurrences once they have happened – both in oneself and in others. Past actions cannot be changed, and returning to them in our minds with feelings of regret or negativity - rather than simply to learn from them – can easily become destructive. The wisdom of positive thinking, as it exists within the modern realm of positive psychology, is that it allows individuals to habituate positive phenomena instead of negative ones. Individuals become what they see in themselves, and in the world around them (Ben-Shahar, 2007).

Nonetheless, it does no good to become caught up in hollow hopes about a future that does not yet exist – and will never exist in precisely the way one envisions it. Much more benefit will come from remaining rooted in an awareness of what is happening real-
time, and with an eye towards the reality of virtue. If one does so, events may begin to unfold smoothly, rightly, and in the best possible way. When one strays from this approach - falling into desperate grasping onto anxieties, fears, and other variations of darkness – it becomes difficult to see these mental phenomena for what they are. One becomes identified with them and therefore cannot observe them. Empathetic Joy is immensely useful as a meaningful defense against despair. There is always joy, meaningful success, and virtue in the world - and these things need not be one’s own in order to enjoy them. *Cynicism and envy cannot exist in the midst of empathetic joy.*

**Impartiality, or Equanimity:** *entails a sense of even-heartedness and even-mindedness.* It *arises from taking responsibility for one’s own conduct and actions.* The meaning of these statements – even the idea of impartiality as a virtue – may not be entirely obvious. How does it affect our mind and body, as well as those around us, when we work for the benefit of only those who serve us in some explicitly positive way? How does it affect our mind and body, and those around us, when we fail to see the suffering, lovability, and virtue of those with whom we have neutral or even profoundly negative interactions? When facing the difficulty of developing warmth, compassion, and empathetic joy for such people, impartiality can *easily be confused with a sense of cold or aloof indifference.* In the end, the benefit of impartiality can most easily be seen by considering the effects of cultivating loving kindness, compassion, and empathetic joy toward all individuals we encounter, without any exception. Certainly each individual has greater responsibility to some than others, but that does not preclude the possibility of offering one’s virtuous qualities to all encountered.
The primary lesson of these “four immeasurables,” in application, is that when virtue is present, it is good for everyone. Furthermore, virtue can be cultivated “immeasurably,” in so far as it can be extended to all. When one recognizes the effect that non-virtue has on even those people one will never see again, and begins to take responsibility for their actions in light of that recognition, a new sense of responsibility may arise. *Impartiality is incompatible with craving and self-centered attachment, and also with acute aversion.*

v. Summary

To summarize, by toning down one’s many frenzied and high-stimulation activities, to whatever degree one is able, and seeking out suitable, quiet, solitary environments for practice – either in the midst of an active life, or in the form of a full-blown contemplative retreat – one will be able to cultivate a firm foundation for formal shamatha practice. The less one engages with frenzied, extremely high-stimulation activity, on a daily basis, the more success one will experience.

This process, however, will not be fully effective without investigating and attenuating the jarring, negative stimulation produced by one’s own mental propensities. An exceptional way to begin addressing this problem is by identifying and investigating the Primary Mental Afflictions, and working to decrease their presence in actions of body, speech and mind. In order to effectively attenuate these afflictions, a practitioner will need to begin investigating, understanding, and building upon the instances of beneficial mental phenomena – such as loving-kindness, compassion, empathetic joy and impartiality.
In this fashion, a progressively more suitable environment for shamatha practice can be built. One’s formal shamatha practice will both support and be supported by these processes, as well as by the broader process of working towards a greater sense of contentment, and more consistency in the face of the connative hyperactivity and dysfunction all individuals face in the modern world.

As one becomes more and more able to deepen each of these facets, and formal shamatha practice in turn becomes deeper, one will move ever closer to being able to dispense with *compulsive/involuntary* thought completely. Once one accomplishes this goal, likely in the context of an intensive retreat from worldly life, mindfulness and introspection will have already been developed to highly advanced levels. At this point, only insubstantial obstacles will remain between oneself and the actual achievement of shamatha.
BIBLIOGRAPHY


Chapter 6: Conclusions and Suggestions for Future Research

“Pain and pleasure occur in consciousness and exist only there.”
-Mihalyi Csikszentmihalyi in *Flow*

“Consciousness is not the ‘sum of mental processes’: it is the awareness of these processes as a sum.”
-W. Caldwell, in 1898

“*Introspective observation is what we have to rely on first and foremost and always.*”
-William James, *The Principles of Psychology*, original emphasis

Over a century ago, at the outset of modern psychology, William James stated that psychology was a natural science (e.g., James, 1890, p 184). His case was based upon the fact that psychologists are indeed able to study mental events, through introspection. He stated that mental phenomena are, “the subjective data of which he [the psychologist] treats, and their relations to their objects, to the brain, and to the rest of the world constitute the subject matter of psychologic science.” (James, 1890, p198) Today, the modern field of psychology has mostly abandoned this primary subject matter, in favor of indirectly studying its relations to objects, the brain, and the rest of the world. Where modern psychology continues to study mental phenomena - the primary subject matter - through introspection, it typically uses untrained amateur observers, such as college undergraduates.

This statement applies as much to the field of kinesiological psychology, as well as philosophy, as it does to the other disciplines in mind science. For example, despite all the emphasis he places upon the realm of consciousness, Csikszentmihalyi – erudite scholar, co-founder of the burgeoning Positive Psychology Movement, and Father of Flow Theory – nowhere indicates that he has made an effort to rigorously investigate the realm of consciousness directly, using observers with professional levels of training.

In a characteristic statement at the 2007 *Mind and Super Mind* lecture series he summed this issue up by saying:

…the cognitive sciences are the one branch of the natural sciences – whether it’s psychology or neuroscience – in which the specialists, the researchers in the field, are given no professional training whatsoever in actually observing the phenomena that define the discipline...mental phenomena. Mental processes. That’s odd! (Wallace, 2007a)

Nowhere can this oversight be seen more glaringly than with regard to the study of optimal human experience. Flow itself is, by definition, a mental phenomenon. The fact that “optimal” experiences are almost impossible to define, much less observe, outside the first-person perspective, may be a major part of the reason why Flow Theory has grown so quickly within the fields of Applied Sport and Performance Psychology. Sport, and other endeavors where conventionally agreed upon rules and goals allow one’s level of performance to become relatively easy to quantify and measure, provide many ways in which the phenomenon of flow can be more easily observed and studied. Nonetheless, even in these disciplines, questionnaire and interview still provide the most
rigorous methods available to study the phenomenon of optimal human experience -
amost twenty years after Csikszentmihalyi put this field on the map using such methods.

During those twenty years, there has been virtually no empirically sound
investigation of the original nine elements of flow - which are mental phenomena – much
less inquiry into whether they are directly related to causal, mental antecedents. Indeed,
such investigation could only occur through first-person observation and manipulation of
mental variables – coupled with the study of their relationships to objects, the brain, and
the rest of the world. The modern field of psychology is simply unequipped to conduct
such research. First and foremost, it stands to reason that only well-trained observers
could undertake this type of work, and nearly all of psychological research utilizes
participants who have received little to no training in observing or understanding, much
less manipulating, the mind. But, as James’ statements imply, things have not always
been this way.

i. Introspectionist Psychology and The Missing Link of Shamatha

In the late 19th and early 20th century, a small group of psychologists were
working toward developing introspection as a rigorous means of conducting
psychological research. This movement is generally used as the proverbial whipping boy
for those who believe introspection holds no place in scientific psychology. The many
obstacles these researchers encountered are often presented as inherently ruinous to
introspection as an empirical enterprise. The following seven barriers are among the
most commonly mentioned in recent literature, and will be focused upon for the purpose
of the current discussion; they will be referred to along with their number, hereafter, for
ease of reference: 1.) an inability to generate conclusions via introspection that are falsifiable through genuine experimentation 2.) a difficulty collecting introspective data in a way that is repeatable or reliable across many observers, or a lack of potential for genuinely objective inter-observer reliability 3.) the possibility of inaccurate memory/recall of observed events or 4.) the problem that those introspecting may not be sincere about their reports or may alter their reports for various personal reasons, 5.) the notion that a many mental processes occur subconsciously and are therefore invisible to introspection – necessarily leaving such observations incomplete, 6.) the potential that introspection may actually be a process that alters, or disturbs, the very mental phenomena being observed, and finally, among others, 7.) researchers such as Skinner, Nisbett and Wilson (1997) and others demonstrated that introspection is not reliable.

Recent discussions of these potential problems are rarely accompanied by an explanation of their manifestation in early introspectionist work. Accounts of how, or whether early introspectionists recognized or combated these problems is also generally absent. Subsequently, a brief examination of the motivations and shortcomings of this original movement may be worthwhile, before addressing the ways in which shamatha practice might be useful in addressing the above barriers.

The very founders of psychology, William James and Wilhelm Wundt, both believed emphatically that, if psychology were to become a legitimate science, it would need to be based upon the direct observation of mental phenomena (James, 1890, 1898, 1902, 1922; Wundt, 1904). Both of these men, along with their most dedicated students, worked diligently to make this ideal a reality. However, as many modern psychologists will immediately point out when the subject is broached, this movement failed. In
addition to encountering the barriers listed above, its scientific proponents failed to move
beyond debate over fundamentally philosophical issues, such as whether identifying and
studying the most basic structures of mental phenomena (Structuralism – advocated
primarily by Wundt and his students) would be a more beneficial and fruitful starting
point than the broader functional networks and causal connections of mind
(Functionalism – advocated by many others, including James and his students) (e.g.,
Angell, 1907; Caldwell, 1898, 1899; Titchener, 1898b, 1899). But this was an entirely
legitimate debate for a field in its infancy, and centered on issues that desperately needed
resolution. It is also worth noting that these researchers were, in the end, allowed only
about twenty years to work through these debates before their field began to be
dismantled. As Costall states in his paper, “Introspectionism’ and the Mythical Origins
of Scientific Psychology”:

…the early debates about introspection as a method in psychology were a good
deal more subtle and insightful, and also much less decisive, than the textbooks
might have us believe. Those early debates identified fundamental issues that
have been obscured…Yet these issues need to be remembered and resolved if
modern psychology is to achieve any revolutionary break with behaviourism.
(Costall, 2006, p3)

Many within modern psychology assume that other introspectionist debates, such
as the famous disagreement over whether “imageless thought” could exist, centered upon
fundamental disparities within the data collected by these early researchers (e.g., Boring,
1953). This argument is generally used to place barriers (1) and (2) squarely within the
work of the introspectionist movement, and to implicitly lend credence to barriers (3),
(4), (5) and (6), as possible contributors to the problem (e.g., Block, Flanagan, Güzeldere
eds, 1997; Boring, 1953). However, Monson and Hurlburt (1993), for example,
conducted extensive analysis of the enormous data sets collected by the classical
introspectionist schools, and assert that this debate was centered on interpretations of the data. The data, they found, was fundamentally in agreement on this issue (Hurlburt and Heavey, 2001; Monson & Hurlburt, 1993).

It is widely asserted that the true death sentence for this movement was that it lacked a generally agreed upon method of falsifying introspective results. For example, one text book states:

In sum, the fact that Introspectionism ultimately located the locus of authority with regard to the data in the word of the subject, while training procedures for subjects were not standardized across laboratories to immunize against “stimulus-error,” brought the death sentence to the movement. (Block, Flanagan, Güzeldere eds, 1997, p15)

The fact that training procedures for subjects were not standardized is a problem faced by any growing field, but such standardization is all the more crucial for rigorous introspective observation. Nonetheless, a great deal of effort was put into creating such procedures, in an attempt to make introspective conclusions relatively falsifiable and repeatable within large populations of observers.

Those early introspectionist researchers quite aptly recognized the danger that the aforementioned barriers posed for their work, and were simply not able to agree on one standardized method for use across all Introspectionist laboratories – at least not in the time they were given. E.B. Titchener - Wilhelm Wundt’s most prominent student, founder of the original introspectionist psychology lab at Cornell University and, as it turned out, the end of the introspectionist lineage – stated:

Psychological observation has all the difficulties of scientific observation in general, and some added difficulties of its own. Our mental processes are so familiar to us, we think we know ourselves so well, that we are liable to be very careless and very prejudiced in our account of our own mind…what we have always taken most for granted may be altogether imaginary, and quite unlike the reality. And lastly, of all of the processes that we could set out to examine,
mental processes are the least tangible and the most elusive. (Titchener, 1898a, p 27)

As a result, these early psychologists often endeavored to connect their introspective observations to externally manipulated stimuli, in accordance with Fechner’s (1860, 1912) suggestions, in an attempt to make them more easily falsifiable (1) and reproducible (2). Beyond this measure, Titchener asserted that there were four “General Rules” which needed to be followed during any form of first-person research into the mind. They were:

1.) Be impartial. Do not form a preconceived idea of what you are going to find by the experiment; do not hope or expect to find this or that process. Take consciousness as it is.
2.) Be attentive. Do not speculate as to what you are doing or why you are doing it, as to its value or uselessness, during the experiment. Take the experiment seriously.
3.) Be comfortable. Do not begin to introspect till all the conditions are satisfactory; do not work if you feel nervous or irritated, if the chair is too high or the table too low for you, if you have a cold or a headache. Take the experiment pleasantly.
4.) Be perfectly fresh. Stop working the moment that you feel tired or jaded. Take the experiment vigorously. (Titchener, 1898a, p. 34)

Titchener’s students were given standard university-course-level training in following these rules, and others for more specific circumstances, during introspective data collection (Adams, 2000; Titchener, 1898a). While these rules, if followed, may have ameliorated many of the aforementioned problems with introspective data, virtually anyone who has engaged with long-term, intensive shamatha training would acknowledge that Titchener may have identified some of the core reasons - in his very rules for introspectionist research - why Introspectionism struggled as a movement.

With regard to the first rule, impartiality in introspective research is impossible for one who has not trained their mind to such a level where engagement can take place
without distraction and without grasping. Within the context of shamatha practice, it is
precisely distraction and grasping that contribute to problems with inaccurate memory of
introspected events (3) and with sincerity (4), respectively. This problem, of course,
occurring in a gradient, and that gradient will only be traversed, beyond natural levels of
endowment, with training. One’s ability to eliminate those mental variables that might
be confounding in a research context will, according to Wallace, become fully developed
only after the achievement of shamatha – an accomplishment that may require a full
10,000 hours for mastery (e.g., Wallace, 2000, 2009). This leads directly to addressing
the significance of the second rule: being attentive.

Until the achievement of shamatha, one’s attention will remain relatively
unrefined, from a classical contemplative perspective (e.g., Buddhaghosa, 1999; Wallace,
2007a, 2007b). Excitation and laxity - and the corresponding degrees of stability
vividness they prevent - are also expressly implicated, within the context of shamatha
practice, in preventing introspective data from being reliable and repeatable across
participant populations (2). Contemplatives assert that these factors represent the
fundamental sources of variation between introspective observers (Wallace 2006b,
2007b). In a population of individuals who have achieved shamatha, and are able to
accurately attend to the mind without distraction and without grasping, assertions may
become relatively falsifiable, due to the standardized precision of observation obtained by
each observer (1). The elimination of excitation and laxity, and the development of
stability and vividness of attention, is also explicitly meant to allow individuals to gain
access to the vast realm of unconscious thought (5). Wallace, on many occasions, has
likened the tool of shamatha to the telescope developed by Galileo – in so far as it
enables the perception of entire realms of phenomena that were previously inaccessible (i.e., unconscious) to human perception (e.g., Wallace, 2007b).

With regard to Titchener’s third rule, being comfortable sitting with one’s own mind is invaluable. Wallace recommends that any serious shamatha meditator not shy away from practicing in reclining or otherwise comfortable chairs, and even the supine position on a bed or comfortably carpeted floor. Comfort is essential for being able to train the mind effectively, while confronting and releasing the many discomforts that arise when someone with little experience is left to such training. The early introspectionists, in all likelihood, did not take this rule far enough, or put in enough training to develop any sort of consistent, pleasant baseline for their self-observation of mind.

And finally, with regard to the fourth rule, taking things too vigorously is a sure-fire way to stall progress on the path to non-grasping. Relaxation is absolutely essential, and excessive vigor is a major barrier to observing the mental realm without being carried away by it. Being fresh for this work is crucial. For those first starting out on the path to shamatha, the general recommendation is to conduct many short formal sessions each day, keeping engagement as high quality as possible in each, rather than wearing oneself out during sessions that are longer than one’s current level of skill allows. Deepening one’s relaxation, while remaining fresh and interested, is precisely what allows for sustained vividness of attention over extended periods of time. This is a difficult balance that, as Wallace points out, these researchers really had no help in striking. He once stated, “You have to give them a break – [they] didn’t have any help. And they barely had any contact with Yogis from the East. A few Hindu yogis showed up in Cambridge
but you know, they were really exotic.” (Wallace, 2007c) Lacking any help, introspectionist researchers – perhaps especially those introspecting without Titchener’s general rules - found themselves struggling with both the third and fourth rules, as evidenced in the following account cited by James (1890):

I need hardly mention that success in these experiments depend in a high degree on our concentration of attention. If inattentive, one gets very discrepant figures...This concentration of the attention is in the highest degree exhausting. After some experiments in which I was concerned to get results as uniform as possible, I was covered with perspiration and excessively fatigued although I had sat quietly in my chair all the while. (Chapter 3, footnote 14)

Indeed, these pioneering researchers were undertaking a seriously foreign task, and the problems they confronted were entirely legitimate. Intense, draining, overly vigorous attention to important professional tasks is still par for the course in the modern world – albeit in varying degrees. In contrast, as one progresses in shamatha practice, the amount of effort required for concentration generally decreases as one’s relaxed attentional skills improve.

All in all, from a contemplative perspective, some early introspectionists recognized and confronted these obstacles quite impressively for a field that was only given roughly twenty years before being dismantled. For example, Titchener explicitly recognized the obvious problem of hasty introspection altering the mental experiences being examined (6), and suggested an entirely viable solution:

To get over this difficulty, you must wait to introspect until the processes that you wish to examine have passed by. Let them run their course undisturbed: then call them back by memory, and look at them. They are now dead, and cannot be changed by your observation. (Titchener, 1898a, p. 28)

Interestingly, this is a well-established approach to attention training, within a wide array of contemplative traditions, and is commonly referred to as “Settling the Mind
in its Natural State” within the Tibetan Tradition (e.g., Laird, 2006; Maharaj, 1981, Wallace, 2006b, 2007b). Dudjom Rinpoche, for example, states:

So, to begin with, whatever thoughts arise just stare at them without analyzing or pondering, and rest upon the “recognizer” of the thoughts, without caring about them or giving them any importance, like an old man watching children at play. (Dudjom Rinpoche, 1998, p. 9)

Far from yielding a debate over the possibility of “imageless thought”, Dudjom Rinpoche’s predecessor, Dudjom Lingpa, asserted that after sustained, long term dedication to this practice, “You will become still in an unfluctuating state, in which you will experience joy like the warmth of a fire, clarity like the dawn, and nonconceptuality like an ocean unmoved by waves.” (Lingpa, 2004).

But those within the Introspectionist movement never engaged with this practice at such a professional level. Nor did they cultivate it as a tool for making their observations, which is its explicit purpose as a shamatha practice. Rather, they viewed the practice as a stance to adopt within the research context. Titchener, after presenting this method, goes on to say “…take care that you do not wait too long before recalling [the observed mental phenomena]. If a post mortem examination is to be of any use, it must be made soon after death.” This approach, while entirely legitimate for the purposes of research, engages the practice in an event-by-event fashion, and is not designed to allow the depth of skill development recommended by Dudjom Lingpa. Within the Tibetan tradition, “Settling the Mind in its Natural State” is classically followed to its completion, as described above, and only then do individuals make the process of observation, with the intent to recall and analyze mental phenomena (i.e., vipashyana, or insight practice), their primary focus. This progression could be understood as first developing mental, or contemplative, technology (shamatha), and only
then engaging more intensively with contemplative science (vipashyana) (e.g., Wallace, 2006b, 2007b)

Such sustained and operationalized training in shamatha is what has served to ameliorate the first six of seven previously mentioned barriers to fruitful empirical inquiry through introspection, throughout the course of Buddhism’s 2,500 year-old-history. Furthermore, so long as these barriers are addressed, there is no reason why Titchener would be wrong in his assertion that high-quality, rigorous introspective research could be carried out in the western psychological context. Individuals engaged with such inquiry, however, must be given a pre-agreed upon vocabulary to describe their observations, as all other branches of science provide. The Buddhist traditions provide a ready-made, highly sophisticated vocabulary that could be adapted for such a scientific field (e.g., Bodhi, 2000; Rabten, 2005). Utilizing this nomenclature would address what James identified as the primary source of error in introspectionist psychology – the misleading influence of language not designed to accurately reference mental phenomena (James, 1890, p195).

When fully utilizing the advantages of shamatha practice, few, if any, of the classically implicated barriers to scientific introspection remain especially intractable - including the seventh in our current working list. With regard to the concern over data that indicated introspective evaluation may be doomed to inaccuracy (7), as Hurlburt and Heavy (2001) point out, even Nisbett and Wilson - whose 1977 review of introspective errors seemed so devastating to introspective methods - believed that rigorous training could make the process tenable. They state:

We also wish to acknowledge that the studies do not suffice to show that people could never be accurate about the processes involved. To do so would require
ecologically meaningless but theoretically interesting procedures such as...alerting subjects to pay careful attention to their cognitive processes, coaching them in introspective procedures, and so on. What studies do indicate is that such introspective access as may exist is not sufficient to produce accurate reports about the role of critical stimuli... (Nisbett and Wilson, 1977, p. 246, emphasis added).

B.F. Skinner even distanced himself from any statements regarding the absolute impossibility of introspection as a method. He proclaims:

The statement that behaviorists deny the existence of feelings, sensations, ideas, and other features of mental life needs a good deal of clarification. Methodological [non-Skinnerian] behaviorism and some versions of logical positivism ruled private events out of bounds because there could be no public agreement about their validity. Introspection could not be accepted as a scientific practice, and the psychology of people like Wilhelm Wundt and Edward B. Titchener was attacked accordingly. Radical [Skinnerian] behaviorism, however, takes a different line. It does not deny the possibility of self-observation or self-knowledge or its possible usefulness. (as cited in Hurlburt and Heavy, 2001, p2)

Increasingly, more and more individuals within the modern sub-disciplines of psychology are recognizing the potential value of introspection in the context of all psychological subdisciplines (e.g., Boer, Reinders & Glas, 2008). Costall puts into published words what has, for a wide range of researchers in modern psychology, been previously limited to private conversation:

For many, therefore, a fourth stage in psychology’s historical progress seems long overdue—the full-blooded return of consciousness as a proper subject for psychological research, through the reintroduction of first-person methodologies. The return of consciousness would then, many now believe, mark the true culmination of psychology’s destiny as the science of mind. (Costall, 2006, p3)

Kazniak, for example, is just one of many others who have made similar statements. When contemplating the formation of the Consciousness Studies Center at the University of Arizona, he declared:

[Another] thing that I think the center must achieve is to find a nontrivial way to bring first- and third-person perspectives on consciousness together. As should be clear to everyone, third-person approaches now dominate academic discourse,
particularly within the sciences (including social & behavioral sciences). There is an inherent distrust of first-person methodologies...As I see it, much ground work will need to occur in establishing the reliability of first-person methods, in order for these to be accepted as having an equal epistemic status with third-person approaches (Adams, 2000).

Shamatha, as a methodology, may be able to make an important contribution toward the development of a first-person method of scientific inquiry with respectable epistemic status. Furthermore, given the prominent position that Positive Psychology has taken in the 21st Century, and the enormous, fundamental compatibility between Flow Theory and the theory and practice of Shamatha, investigating the overlap between the two seems a logical place to begin such work anew.

A great deal of effort will need to be invested before work in this area can truly be viewed as a part of a legitimate scientific field. As previously mentioned, according to Wallace’s work, such researchers will likely need to reach the actual achievement of shamatha, in order to gain the levels of mental clarity and discipline required for the aforementioned tasks (Wallace, 2000, 2002a, 2005). Shamatha, however, is an achievement requiring roughly as many resources as reaching elite-level mastery of a sport or academic field. These include qualified guidance and training, funding and facilities conducive for the given training, and the internal motivation and commitment required to take the training to its culmination (perhaps at 5,000 to 10,000 hours of training), among others.

In the case of shamatha, the facilities must provide isolated, highly quiet environments for the aspirants to train for many hours each day. Just as with any sport training, a daily commitment is required, and breaks in “continuity” of this daily practice can significantly slow or reverse the progressive momentum of skill acquisition – as can
many activities in one's life outside the training-context that are expressly counter-productive to progress. In the case of shamatha these would include the aforementioned tendencies toward chronic over-stimulation, excessive entertainment habits, and the use of alcohol or drugs. Outside of a highly isolated solitary context, these needs may be met much more easily within a community of individuals who are all dedicated to bringing the training to its culmination.

While such variables may seem intimidating in the modern world, similar criterion are already met in both research and sporting environments. For example, elite EEG research requires electrically attenuated spaces, which are well ventilated yet profoundly quiet, in order for high quality data collection. These spaces are on a par with what is needed for effective shamatha training. However, facilities located in a remote, relatively isolated context may be required for advanced training, and would also be far more cost effective. Furthermore, the students engaged with advanced neuroscientific research, at most institutions, are fully funded for their coursework and living expenses.

Elite athletics at the Division I level, and even at the upper echelon of Division II or III, is often a community-oriented affair, and it is not at all uncommon for teams to live together in suites or sequestered buildings. These communities will often undertake pacts to abstain from alcohol and drug use, in addition to extensive entertainment (e.g., late-night partying) for the duration of a given athletic season – often for much more inclusive periods. In the case of Division I athletics, the most promising of these athletes are given full scholarships to cover the cost of their lodging, athletic and academic instruction, and their extensive nutritional needs – in addition to being provided with stipends for spending money.
In order for James’ statement, “Psychology is a natural science” to become a reality for the modern field of Psychology, students interested in naturalistic psychology research will need to be given support and training similar to what is already given to elite athletes and graduate students in neuropsychology. Given the benefits of achieving shamatha, many elite athletes and conventional neuropsychology graduate students may themselves wish to reach this accomplishment, and may envision doing so by working with shamatha practice in the course of their daily life. It is unlikely, however, that any given individual in either area, or any area for that matter, could achieve shamatha without leaving their current context, and engaging with this training single-pointedly in a context where all the previously mentioned criterion are met. Historically, this accomplishment has not only been the result of gathering the aforementioned conditions, but also of gaining a professional level of mastery - in mindfulness, introspection, and living virtuously - that is on a par with the mastery exhibited, for example, by modern professional tennis players with regard to serves, forehands and backhands (e.g., Buddhaghosa, 1999; Wallace, 2000).

ii. The Direct Observation of Flow Elements: Hypotheses

Although these factors have not come together, and modern psychology does not yet have a community of professionals conducting the aforementioned sort of introspective psychological research, introspection is already viewed as an entirely legitimate means of hypothesis formulation, and even as a research tool, within fields such as cognitive psychology and psychiatry (e.g., Boer, Reinders & Glas, 2008).
Moreover, introspection is undeniably a crucial tool for all other fields within psychology.

No good hypothesis is ever simply born of copying and pasting recommendations from previously published pieces of work. The obvious practical impossibilities of this proposition aside, neuroscientists and clinical psychologists alike would have to acknowledge that, even when they adopt previously proposed hypotheses for research, their decision to do so involves a great deal of introspective work. The ideas previously proposed must make sense to them. These ideas must be worked with, the potential they hold for advancing the field must be sorted out, at least to some degree, and a functional understanding of how to conduct such research must be reached.

Even in the neurosciences, one must not only bring to bear knowledge of previous behavioral and neural findings but also, arguably, one benefits from being able to understand these findings in terms of one’s own experience – both professional and personal. This relation of knowledge to one’s own experience is generally considered valuable for human understanding, and utilizing introspection is essential for most effectively engaging with that process. Additionally, many have advocated the use of introspection within neuroscience - not only in hypothesis formation, but also as a research tool in the context of research methods such as neurophenomenology, for example (e.g., Depraz, Varela & Vermersch, 2000; Lutz & Thompson, 2003; Thomson, Lutz, & Cosmelli, 2005; Varela 1995; Varela & Shear, 1999). Others claim that introspection is already unavoidably essential to neuroscience as a field (e.g., Boer, Reinders & Glas, 2008).
In that light, forwarding some hypotheses for future research in this area - hypotheses based upon observations made during contemplative practice - seems both acceptable and appropriate. Additionally, all those seeking excellence in a chosen domain outside science, or working to assist individuals seeking excellence outside science, may also benefit from having such hypotheses to test through their own experience (i.e., aspiring athletes and performers, as well as performance consultants).

During my time as a contemplative, I have paid special attention to occurrences of the nine “essential elements of flow,” as presented by Csikszentmihalyi and repeatedly validated by other researchers, in the context of developing and manipulating mental variables during shamatha meditation. I cannot claim to have reached the culmination of this practice. However, because this context has allowed for experimental inquiry into the essential flow elements as a matter of course, I have been able to conduct some very preliminary “pilot testing” - focused on investigating which mental variables may be causally linked to the nine essential flow elements. The following pages will be dedicated to presenting some basic hypotheses along these lines, which have come from this period of inquiry. These hypotheses could be tested – and repeated or dismissed - by other researchers possessing both serious long-term shamatha training and a solid knowledge of Flow Theory. However, individuals who have achieved shamatha – preferably a community large enough to reach statistically significant power - could conduct a most effective, reliable, and accurate inquiry. I present these elements as they are worded in recent quantitative flow measurement tools, as well as in Csikszentmihalyi’s early work (with “Autotelic Experience” included as a ninth element). I believe this presentation to be most useful and specific.
**Action Awareness Merging:** This is perhaps the most universally described element of the flow experience. It was mentioned by all of the thousands of interviewees in Csikszentmihalyi’s early work, and has been replicated in all those since.

Csikszentmihalyi asserts that this element occurs when all one’s relevant skills and attention are “needed to cope with the challenges of a situation.” (Csikszentmihalyi, 1990, p53) A common description of this flow element would be:

> Your concentration is very complete. Your mind isn’t wandering, you are not thinking of something else; you are totally involved in what you are doing…your energy is flowing very smoothly. You feel relaxed, comfortable, and energetic. (Csikszentmihalyi, 1990, p53)

Csikszentmihalyi presents this element, especially, as directly related to the “Balance of Challenge and Skills”, which is also considered to be an essential element of flow. By engaging with a task in which the “challenges perceived are matched by a belief in having the skills to meet the challenge, flow can occur.” (Csikszentmihalyi & Jackson, 1999; S. A. Jackson & Ecklund, 2004, p 16). Csikszentmihalyi - as well as the new generation of flow researchers in the performance-related fields, including Jackson and Ecklund - believe strongly that such circumstances are the only ones in which flow, and especially “action and awareness merging” can occur.

Throughout the course of contemplative training, however, this element appears to manifest less as a result of engaging with tasks that require all of one’s psychic resources, and more as a result of the *quality* of engagement with a given task. One need not engage with something that leaves “no excess psychic energy left over,” as Csikszentmihalyi puts it, in order to experience awareness and action merging.
This element tends to occur consistently in the degree to which excitation and laxity are being released and grasping is absent. *When attention is being directed to a particular task, and these imbalances are not hindering the experience, awareness and the activity cannot help but merge.* On the coarsest level, grasping onto task-irrelevant thought activity is what prevents this fusion from occurring. During tasks in which thought itself is essentially task irrelevant (virtually all familiar tasks) the degree to which one is grasping onto any thought activity is, again on the coarsest level, the degree to which one is creating a sense of self that is separate from the current activity. Laxity tends to hinder the sharpness, or profundity, of this experience.

Some may find Csikszentmihalyi’s theory to be contradictory in this regard, because he mentions that flow can occur in the realm of thought. However, it makes perfect sense that, if the chosen activity engaged with is thought, one could all the more easily enter into flow. The thinking minds of most individuals are out of control, and if thought becomes the activity of choice, then it is all the more easy for awareness to merge with it – at least to some degree. Much more difficult, however, is learning to release thought so that awareness can merge with other activities.

Attention, of course, needs to be directed toward task relevant cues in order for this event to take place, but again, one need not be engaging with anything particularly scintillating or have lists of pre-determined goals in order to experience it. Neither does the activity need to command all of one’s available “psychic energy” due to its complexity and challenge. One need only possess extensive training in mindfulness, introspection, release, and non-identification/non-grasping.
Clear Goals and Unambiguous Feedback: A primary feature of flow experience is that the objectives are clear, and the feedback on how one is doing, with regard to those objectives, is also readily apparent. Given this commonly reported aspect of flow experience, Csikszentmihalyi asserted that, if one made clear goals for themselves and sought, as well as worked to understand, feedback in their chosen activity, this process would allow them to enter flow more frequently (Csikszentmihalyi, 1990).

This approach has borne much fruit in Csikszentmihalyi’s work since, but as Jackson and Ecklund point out, “When in flow, feedback is easier to receive. The performer receives clear, unambiguous information that he or she processes effortlessly…When in flow, athletes speak of ‘knowing clearly what to do’ and having ‘everything click.’” (S. A. Jackson & Ecklund, 2004, p9)

Experientially, when one enters a given activity with only the most basic goals in hand, and is able to allow their awareness to merge with the activity, the evolution of understanding all other relevant goals – and of receiving feedback along the way – occurs quite naturally.

It would seem that the emphasis on goal setting, in order to fabricate these two essential flow elements, may be primarily a result of having no practical advice on how to consistently merge action and awareness. This inability to merge action and awareness, in turn, may be connected to an inability to foster the following flow element - concentration on the task at hand.

Concentration on the task at hand: Csikszentmihalyi describes this element as follows:

One of the most frequently mentioned dimensions of the flow experience is that, while it lasts, one is able to forget all the unpleasant aspects of life. This feature
of flow is an important by-product of the fact that enjoyable activities require a complete focusing of attention on the task at hand – thus leaving no room in the mind for irrelevant information. (Csikszentmihalyi, 1990, p58)

Here again, it is obvious that Csikszentmihalyi’s understanding of optimal human experience is dependant upon an experience being enjoyable, and requiring all of ones psychological resources. He has no real path of practice to offer with regard to training the attention itself. Interestingly, within the context of rigorous contemplative attention training, clear goals are essential, and working to identify and understand the feedback there-in is of the utmost importance. Simply put, the goal is mindfulness; the feedback is born of introspection.

However, once one works to mindfulness and introspection within the realm of attention training, the cross-contextual skill of being able to willfully direct attention, and allow awareness to merge, with any given activity, is gained. The degree to which one succeeds in mastering this skill is inversely related to the amount of time one will need to invest in fabricating goals and calculatingly studying the feedback inherent in any given activity. In this way one can, at any time, choose to “forget all the unpleasant aspects of life,” as Csikszentmihalyi puts it.

He states: “if one chooses a trivial goal, success in it does not provide enjoyment,” and indeed he is correct (Csikszentmihalyi, 1990, p55). But allowing one’s awareness to merge completely with an activity, with as little influence from excitation and laxity as possible, is not a trivial goal. And, furthermore, the greater the degree to which one is able to do this, the more one will be able to deeply enjoy even the most seemingly trivial of necessary activities throughout each given day. The very ability to
single-pointedly, willfully yet effortlessly, immerse oneself in a chosen activity is, in and of itself, blissful.

The Paradox of Control (Sense of Control): The ability to manage this level of engagement in and of itself seems to provide the very sense of control that Csikszentmihalyi has identified as essential to flow experiences. As he put it, “the flow experience is typically described as involving a sense of control – or, more precisely, as lacking the sense of worry about losing control that is typical in many situations of normal life.” (Csikszentmihalyi, 1990, p59) Indeed, from a contemplative perspective, the worry about losing control is simply a construct created from superfluous thought activity. When excitation is attenuated, this very sense of control – or more precisely the lack of conceptually constructed worry over control - can be brought into all activities.

The Loss of Self-Consciousness: Csikszentmihalyi is here referring to the sense of having a self that is explicitly separate from whatever one is doing. Some work, within the fields of Sport and Performance Psychology, has inaccurately boiled this element down to the presence of self-judgment (Csikszentmihalyi, 1992; S. Jackson, Thomas, Marsh, & Smethurst, 2001; S. A. Jackson, 1992; S. A. Jackson & Ecklund, 2004; S. A. Jackson & Eklund, 2002; S. A. Jackson, Kimiecik, Ford, & Marsh, 1998). Self-judgment is certainly a part of the “self-consciousness” that is opposed to optimal human experience, but it is far from the whole picture. This misidentification is likely, at the very least, to be related to the generally accepted, limited psychological understanding of all metacognitive activity as merely “thinking about one’s thoughts.”
Csikszentmihalyi writes that the disappearance of the sense of self deserves special attention, because “in normal life we spend so much time thinking about it” (Csikszentmihalyi, 1990, p62). Indeed, the sense of self is not only the primary beneficiary of thought but, as mentioned previously, thinking itself creates this sense, on a coarse level. The very idea of oneself as being separate from perception and attention is just that: an idea. On a deeper level, this construct is an unexamined assumption. The entire range of thoughts, so long as they are defined as “ours” in some way, are perpetuating this idea, on its coarsest level. During times when one is able to release grasping onto thought as “my thought” and simply let it flow forth as called for by a given form of engagement, the pain and clunky dysfunction of maintaining a delusional sense of existing separately from everything else is lessened. Thought can be a useful tool for many things, and should not be discounted as completely superfluous. However, during times when the mind is so calm that thought is little more than flashing in the periphery of awareness, the pain of reified identity - as it is commonly known - is temporarily eliminated almost entirely, and the bliss of awareness in its raw form flows forth unimpededly into whatever one is engaged with at the given moment. This unimpeded flowing forth of awareness not only enables the previously mentioned ease of identifying and implementing goals and feedback in an activity, but also temporarily diminishes a sense of autonomous agency. Indeed, the very sense of experiencing moments changes entirely.

The Transformation of Time: The sense of time, too, appears to be largely dependant upon the arrival and passing of concepts. Transformation of the perception of time is a
well-known phenomenon among contemplatives, and it is also commonly mentioned in flow literature. Such transformation is not widely regarded as being a major element of flow experience, however, and very little effort has gone into understanding it (Csikszentmihalyi, 1990, p67) This marginalization appears to be due, at least in large part, to the downright frenetic way in which time may be transformed for those in flow. For some, at certain moments, time slows down or almost stops, while at other times hours go by like minutes. Both of these phenomena are reported as enjoyable aspects of flow, but beyond that very few assertions have been made regarding the mechanics of how such transformations occur.

As formal shamatha practice progresses, one will experience both of these phenomena, in their most pleasurable forms. Early on, practitioners may find it common for hours to go by like minutes, and this phenomenon becomes more and more common as one becomes increasingly adept at removing the “obscurations” to awareness. It seems that, the less coarse excitation and coarse laxity are present during an experience, the more quickly time is perceived to pass – explicitly due to the fact that concepts, including those related to the passage of time, are not dictating one’s experience. This experience is characteristic of the profound relaxation and stability of attention one is able to maintain in a chosen activity.

But as one progresses further along the path to shamatha, and relaxation and stability become well developed, vividness of attention becomes the primary objective. Within the context of Wallace’s work on contemplative attention training, vividness is measured in terms of moments of ascertaining cognition per unit time. These are, very simply, moments during which one is aware of perceiving something. According to
Wallace’s work, both Buddhist contemplatives and modern psychology agree that human beings experience several hundred potential moments of ascertaining cognition each second (e.g., Wallace, 2006). A quick look at one’s own experience, however, will confirm that one is generally ascertaining far fewer. As one begins to increase vividness through shamatha training, and concurrently begins to consciously ascertain more and more of these moments, time appears to slow down – at least initially.

Furthermore, as one begins to develop vividness as a skill, what were once “peripheral” instances of excitation, or highly subtle perceptions of laxity – imbalances that seemed more unborn than anything - will begin to become more and more obvious. Imbalances that once seemed barely perceptible – even barely understandable – will become more manifest aspects of conscious reality. In many ways, as practice progresses, the varying levels of intensity with which attentional imbalances occur begin to seem more a temporal matter than a matter of degree. This shift in perspective brings with it the highly pleasurable sense of seconds seeming long and spacious, which has been described by many performers in deep flow. Contemplative experiences indicate that vividness is instrumental in creating the “high” that is so characteristic of common reports of flow.

However, many of the hedonically bound reports of flow – such as motorcycle racing and burglary – allow for this exhilarating sense of vividness with almost no true depth of bodily and mental relaxation. As Wallace points out repeatedly in his contemplative teachings, vividness must come from a foundation of relaxation if it is to be consistently repeatable – especially in activities that are not fundamentally based upon high levels of hedonic excitement or pleasure. Even such high stimulation activities
themselves hold no guarantee for repeating flow over the long term. As one adapts to the imposed demands of such activities, the biological necessity of vividness-based flow diminishes, and the “high” that these activities once provided will begin to diminish like a drug, unless one “ups the ante.”

**The Autotelic Experience** – Csikszentmihalyi states, “The key element of an optimal experience is that it is an end in itself.” (Csikszentmihalyi, 1990, p.67) He goes on to say, “An autotelic experience is very different from the feeling we typically have in the course of life. So much of what we ordinarily do has no value in itself, and we do it only because we have to do it, or because we expect some future benefit from it.”

(Csikszentmihalyi, 1990, p.68)

The primary difference between these assertions, and the contemplative perspective on autotellicity, is that Csikszentmihalyi asserts that autotellicity arises from engaging any meaningful, challenging activity from a well-developed base of goals, while contemplatives – after engaging the meaningful, challenging activity of working toward discovering the source of value and meaning itself - assert that the very sense of autotellicity itself arises directly from the nature of one’s own awareness. This assertion is utterly cross-cultural (e.g., Chagme, 1998, 2000; Laird, 2006; Lamrimpa, 1992; Maha Boowa, 1987, 1988; Maharshi, 2006a, 2006b; Padmasambhava, 1998; Sāntideva, Wallace, & Wallace, 1997; Spearing, 2001; Tzu, 2000; Wallace, 2006, 2007, 2009).

Nisargadatta Maharaj, for example, states:

Your very nature has the infinite capacity to enjoy. It is full of zest and affection. It sheds its radiance on all that comes within its focus of awareness and nothing is excluded. It does not know evil nor ugliness: it hopes, it trusts, it loves. You
people do not know how much you miss by not knowing your own true self. (Maharaj, 1981, p167)

Wallace describes the process of tapping into this source, ever more and more deeply, as moving into a “cultivator phase” of well-being, as opposed to forever being stuck in a “hunter-gatherer phase” in which one constantly requires outside stimuli to provide autotelic experiences.

The late Thai forest master Ajaan Lee Dhammadharo alludes to this same phenomenon, at the relatively basic level of shamatha, by saying, “A person who practices concentration is like a person with a home and family; a person without concentration is like a vagrant with no place to sleep.” (Dhammadharo, 1994, p39).

When one has highly developed concentration, and is maintaining it well, a deep sense of autotellicity flows forth at all times, in all activities. This sense of groundedness, meaning, and quality that springs from awareness is like a home and a family in that it becomes the most redeeming source of meaning in life. And, like a beloved home and family, this autotelic gift of awareness is not simply something to be returned to at the beginning and end of each day, or perhaps on lunch breaks, but becomes a deeper driving force behind all that one does. From a contemplative perspective, those who are without this mooring are like vagrants skipping from short-term bed to short-term bed, without ever finding deeper, more enduring respite. They will constantly be searching the environment in order to fulfill their most basic needs. Yet, those who possess this mooring have, from a contemplative perspective, merely entered the beginning of an ever deepening, ever more fulfilling relationship – one reportedly capable of bearing fruit that is exponents greater in value (e.g., Padmasambhava, 1998; Lingpa, 2004).
Csikszentmihalyi makes the assertion, “It is an illusion to believe that any solution is beneficial for all people and at all times; no human achievement can be taken as the final word” (Csikszentmihalyi, 1990, p70). But what would the significance be of discovering the very source of all satisfaction, enjoyment, and meaning? If contemplatives are correct, and these things do indeed spring from the very nature of awareness itself, regardless of time or culture - irrespective of whether one is engaged in enjoyable sex or an enjoyable solitary sitting session – what are the implications?

Csikszentmihalyi claims, “the task is to learn how to enjoy everyday life without diminishing other people’s chances to enjoy theirs” (Csikszentmihalyi, 1990, p70). But contemplatives, from all traditions, assert that discovering the genuine source of enjoyment cannot possibly diminish other people’s chances to enjoy theirs (e.g., Khyentse, 2008; Chatral 2007; Lhalungpa, 1979; Maharshi, 2006b; Merrell-Wolff, 2003; Spearing, 2001; Tzu, 2000). A primary assertion that Wallace makes, in his teachings, is that eudaemonic wellbeing - the wellbeing that springs from a well-balanced mind – has the characteristic of increasing upon itself. In other words, the more eudaemonic wellbeing I have, the more those around me will have, and vice versa. This assertion could truly transform the psychology of optimal experience and Positive Psychology as a whole.

iii. Psychology as a Natural Science

Investigating the experientially based hypotheses of contemplatives must be at the forefront of 21st century psychology. This investigation, however, cannot be done without cross-disciplinary researchers. Such researchers will need to dedicate thousands
of hours to training their mental faculties before they can produce genuinely reliable, valid data, and they must do so in a growing community. With the construction of the Phuket Mind Training Academy, and quality contemplative teachers available who possess extensive knowledge and respect for science – individuals like Wallace, Matthieu Ricard, H.H. Dalai Lama, and others – there is enormous promise that such research could enrich modern science. Wallace (2009) believes this collaboration may lead to the “first revolution in the mind sciences.” In similar spirit, Csikszentmihalyi states:

The task of the next decades and centuries is to realize this under-developed component of the mind…The most promising faith for the future might be based on the realization that the entire universe is a system related by common laws and that it makes no sense to impose our dreams and desires on nature without taking them into account. Recognizing the limitations of human will, accepting a cooperative rather than a ruling role in the universe, we should feel the relief of the exile who is finally returning home. The problem of meaning will then be resolved as the individual’s purpose merges with the universal flow. (Csikszentmihalyi, 1990, p240)

Both Csikszentmihalyi, in his work on Flow and Flow Theory, and the world’s most formidable contemplatives, assert that their work is centered upon living a meaningful life. One of these groups, however, has millennia of empirical work behind it, and currently possesses extremely well honed, reliable and effective methods for training and investigating the mind.

James identified three methods of investigation as central to psychology – first and foremost, introspection (to observe mental phenomena), and secondarily experimentation (to discover the relationship between observed mental phenomena and their objects, the brain, and the rest of the world) and comparison (used to trace the mechanisms and origins of those phenomena being introspected and experimented with –
such as comparing the mental capacity of healthy and mentally ill human beings or animals).

Modern Mind Scientists have developed highly advanced means for studying the brain, and the rest of the world, through experimentation and comparison. The methods of experimentation in modern science, coupled with advanced use of statistics and computing power, are now at levels of refinement undreamed of in James’ day – when Fechner and Wundt’s basic physiological approaches were the most advanced (Fechner, 1912; Wundt, 1904). But, again, James stated that this sort of work, in order to be truly naturalistic, “presupposes a normal psychology of introspection to be established in its main features.” (James, 1890, p196) The force of his logic is difficult to ignore.

The Buddhist contemplative traditions, in particular, have utilized not only introspection, but also experimentation and comparison extensively – although they have put very little time into studying the brain and the physical world directly. Recognizing the potential for increasing the richness of both Buddhist and modern scientific inquiry, contemplatives such as Wallace, Matthieu Ricard, and H.H. Dalai Lama (2007) have actively begun collaborating with mind scientists of all varieties, working diligently to understand how these two traditions of inquiry may complement each other, and perhaps yield a truly naturalistic field of Psychology.

Still, despite the highly publicized, “Race for a Science of Consciousness,” much of modern mind science may be entrenched in anti-introspective dogmatism – a tradition that has grown since the failure of the original Introspectionist Movement in psychology. A man whom many regard as one of the early pioneering geniuses of the Electroencephalogram, D.O. Hebb, stated defiantly:
How are we to study the mind? It is not open to inspection and cannot be examined directly... Not even one’s own mind is open to inspection. It was once supposed that one could, somehow, look inward at any time and see what one was thinking, on any topic... But now it is clear, from the modern work of G. Humphrey and E. G. Boring, that this is not so. Introspection, “looking inward,” does not exist. You are not conscious of your consciousness. What you are conscious of is your body and the world around you, not what is going on inside your mind. (Hebb, 1958, p. 2)

This attitude prevails into the present day through the work of many well-known and respected psychologists. Furthermore, while many such psychologists have begun to collaborate with individuals possessing advanced contemplative training, few - if any - psychologists have acquired such training themselves. In order for Naturalistic Psychology, the kind James envisioned, to be born, this sort of cross-disciplinary training will need to take place. Given the acknowledgement and positive confirmation that Buddhist contemplative practices have recently received, in the course of collaboration with modern mind scientists, this leap seems inevitable.

Steps toward this goal can already be seen in the body of research on lucid dreaming. Lucid dreaming is a phenomenon where-by one recognizes that they are dreaming, while still in the context of a dream – a phenomenon that has been documented for centuries in the western context (e.g., James, 1902). Stanford researcher Stephen LaBerge - one of the modern pioneering scientific investigators of this phenomenon – has been training individuals to attain this state with ever increasing levels of efficiency (e.g. LaBerge, 1985; LaBerge, 1990). Although this training is fairly minimal, when compared to full-force contemplative training, it allows individuals to gain access to a research context in which mental variables are isolated from all sensory variables (i.e., all variables involved in the person’s experience, for the duration of the lucid dream, are explicitly mind-created). In this context, participants are able to begin investigating
mental phenomena first-hand, in myriad ways, for the duration of their lucid dream. Furthermore these contexts, and their correlates, can be identified and measured with a wide array of standard physiological tools (electroencephalogram, pulse rate, galvanic skin response, etc) through a system developed by LaBerge and colleagues which allows the dreamer to signal when they have entered lucidity (LaBerge, 1990, 2003).

Due to the confluence of all these factors (1) training individuals to enter a mental laboratory so that mental phenomena can be investigated in isolation; 2) documenting and investigating the entry into such a laboratory - as well as the subsequent investigation – through conventional physiological/neuroimaging means, and 3) combining the two data sets to create robust and rich findings) modern lucid dreaming research does indeed provide a concrete living example of the general sort of work being suggested here-in. However, the primary difference between the methods suggested here-in, and the methods already employed by lucid dreaming researchers, lies in the level of training. The training provided to those involved with lucid dreaming research may be fairly extensive, by modern psychological standards. But by contemplative standards it is relatively minimal – specifically with regard to attention.

The lucid dreamers, in this case, are generally only able to sustain lucidity in their dreams for several minutes, and their depth of lucidity (i.e. the degree to which they recognize the dreamscape for what it is, and are actually able to manipulate the variables involved) varies widely. According to the lucid-dreaming tradition within Tibetan Buddhism, these problems are due, first and foremost, to a lack of attention. One major question is: where in modern academia could research such as this fit best?
iv. Mental Kinesis

Kinesiology, as a field, is as ripe as any for making this next step. Since its creation as a field, Kinesiology has served the purpose of keeping research down to earth in human application. Where much of modern biological research became too abstract for direct application to daily human function - much less exceptional human performance – research scientists in kinesiology have stepped in to work with problems directly relevant to the applied goals of their rehabilitation and athletic training-oriented co-workers. Where much of modern chemistry has become focused on technological and elemental application, many associated with Kinesiology have carried the banner of human nutrition forward, and continued to refine its application for high-level performers, as well as improve the lives of every-day functioning people. And finally, where many cognitive psychologists and neuroscientists have become far removed from application to human experience, Kinesiological researchers have dedicated themselves to understanding the brain in ways directly relevant to excellent or optimal functioning and well-being.

For example, in the Kinesiology Department at Pennsylvania State University - the #1-ranked Kinesiology department in the United States, according to the American Academy of Kinesiology and Physical Education - the essential connection between research and application is kept readily available (if not always active) as both research and applied professionals of myriad related disciplines are housed under one roof. The department has, in many ways, set an impressive bar for enabling collaborative interdisciplinary and cross-disciplinary potential. Penn State’s “Rec Hall,” dedicated to Kinesiology, houses both world-class research-oriented and world-class application-
oriented psychologists – in addition to philosophers and historians. Furthermore, the
department is part of Penn State’s highly interdisciplinary “College of Health and Human
Development.” Such departments are ripe for revolutionary work on the frontier of
mind-science, involving naturalistic, introspective means.

Kinesiological psychology and philosophy have, classically, been highly
motivated to understand and reproduce optimal human experiences - and have been
struggling to do so, with only modest success, since their creation as fields. Through
collaboration with contemplatives, and the employment of highly refined contemplative
methods for training and investigating mental phenomena, researchers in Kinesiology
could once again reclaim their role as pioneers of practical research and application – this
time in the areas of philosophy and psychology, beginning with the study of optimal
experience.

With the goals of their field in mind, and unshackled by allegiance to any dogma,
Kinesiological philosophers and psychologists could begin conducting naturalistic
research at the vanguard of modern mind science – Mental Kinesis. If such research
begins, and uses all the contemplative and modern scientific tools available to it, there is
reason to hope that modern man may, as Csikszentmihalyi put it, “feel the relief of the
exile who is finally returning home.” With collaboration rather than dismissal in mind,
Wallace made a statement in this regard at the conclusion of his most recent book, Mind
in the Balance, which contrasts nicely with Csikszentmihalyi’s closing statement.

“Through such practice, we may rediscover universal truths about our own
identity, our potential for goodness, the nature of genuine happiness, and the role
of consciousness in the universe. These truths have been revealed throughout
history by the great wisdom traditions of human civilizations, including religion,
philosophy, and science. We are now poised for the greatest renaissance the
world has seen, for the first time integrating the ancient and modern insights of
the East and West. The time is ripe for humanity to take the next step in our spiritual evolution so that we can successfully rise to the challenges of today’s world and flourish in the world to come.” (Wallace, 2009, p199)
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