Buddhist Thought and Applied Psychological Research
Transcending the boundaries

Edited by
D. K. Nauriyal, Michael S. Drummond
and Y. B. Lal

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The interface between Buddhist Studies and the uses of Buddhist principles and practices in psychotherapy and consciousness studies has attracted a growing interest from scholars and researchers of both Buddhism and psychology. This book presents a collection of articles by leaders in these fields that typify the potential of Buddhist-informed social sciences in contemporary society, including new insights into the nature of human consciousness. It examines the origins and expressions of Buddhist thought, and how it is now being utilized by psychologists and social scientists. The basic tenets of Buddhism and contemporary Buddhist-based empirical research in the psychological sciences are explained. Further emphasis is placed on current trends in the areas of clinical and cognitive psychology and on the Mahayana Buddhist understanding of consciousness with reference to certain developments in Consciousness Studies and Physics. All of the works in this volume demonstrate how Buddhist principles can be used to develop a deeper understanding of the human condition and behaviours that lead to a balanced and fulfilling life.

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B. Alan Wallace earned a doctorate in Religious Studies at Stanford University. He is currently seeking ways to integrate Buddhist contemplative practices and Western science to advance the study of the mind. He is currently the founder and President of the Santa Barbara Institute for Consciousness Studies, USA.
In our time, science has been an extraordinary tool for understanding the material world, but it does not seem advanced enough regarding internal experiences. On the other hand, Buddhism reflects a deep investigation into the workings of the mind. Over the centuries many people have carried out what we might call experiments in this field and have had significant, even extraordinary, experiences as a result of the spiritual or meditative practices they have undertaken based on their understanding. Therefore, I firmly believe that there is great scope for the discussion and joint study between scientists and Buddhist scholars that will lead to the expansion of human knowledge.

If we are to lead meaningful, happy lives, material development is certainly necessary. But this can become dangerous if at the same time we neglect our inner development. For that reason I have also been encouraging scientists to examine advanced Tibetan spiritual practitioners, to see what effects of their spiritual practice might be of benefit to others in a more general context. The important point being to increase our understanding of the world of the mind, of consciousness and of our emotions.

Experiments have already been carried out that show some practitioners of meditation can achieve a state of inner peace, even when facing disturbing circumstances. The results show such people to be happier, less susceptible to destructive emotions and more attuned to the feelings of others. So, spirituality is very important, but if it has no effect on our material conduct it is not complete. At the same time, science, technology and material development cannot solve all our problems. We need to combine our material development with the inner development of such human values as compassion, tolerance, forgiveness, confidence and inner strength.

These days scientists, psychotherapists in particular, are taking a fresh interest in meditative and ethical techniques and are prepared to reappraise their attitudes
towards the relevance of spiritual development in order to achieve a more complete view of life and the world. There is also a growing interest among the scientific community in Buddhist philosophical thought, with its emphasis on the need to follow reason and fact. The editors of this volume, Dr D. K. Nauriyal, Mr Michael S. Drummond and Dr Y. B. Lal, have brought together various contributions from the disciplines of Buddhist studies, philosophy and psychology to reveal the connecting link, the relation between these areas of experience. As a result of such efforts, I am optimistic that over the next few decades there will be a great change in our world view from both the material and the spiritual perspectives. I am sure that if readers approach the materials presented here with an open heart and an open mind, they will find much to inspire them to contribute to this ongoing dialogue.

March 3, 2005
When it rains and shines, it's just a state of mind...rain, I don't mind, shine, the weather's fine.
(Adapted from Lennon and McCartney's 'Rain')

From 'the beginning', human-kind has been fascinated with their experience of the mysteries of the world, both within and without. Early meditative and shamanistic practices then grew into religiosity which was the systematic mid-wife to philosophy. In the West, this epistemological imperative has since metamorphosized into various scientific tributaries, resulting in the disavowal of their mystical heritage. This then led to socio-cultural tensions and also new philosophies seeking to explain these changes. But along with these new world-views, such as postmodernism, Buddhist principles and practices have also penetrated the Western cultural fabric. Some of the best scientific minds have placed themselves face-to-face with the central methods of Buddhism, investigating and utilizing what are essentially scientifically oriented processes, in order to approach the ancient questions of consciousness and human psychological suffering that intractably continue to confound.

Both psychologists and Buddhist scholars have concluded, through personal experience and empirical evidence, that Buddhist mindfulness practices have an unusual ability to cut through the tenaciousness of mental afflictions. The goal of this book is to explore this engagement of Buddhist mindfulness principles and practices by contemporary scholars from the areas of Buddhist studies (an academic pursuit of the analysis of Buddhist texts), philosophy and psychotherapy. Particular emphasis has been placed on the examination of the class of psychotherapies termed ‘mindfulness-based interventions’ as these therapies have been systematically integrated with Buddhist mindfulness principles and practices. Moreover, there is a growing body of empirical studies pointing to their efficacy in a wide variety of settings. This all has necessitated the transcendence of existing boundaries through interdisciplinary and cross-cultural inquiries.

Specifically, this volume is concerned with the interdisciplinary nature of the integration of Buddhist mindfulness principles and practices, by applied psychologists,
into systems of psychotherapy. The term ‘interdisciplinary’ is used here because any theoretical framework offered to explain the ‘hows’ and the ‘whys’ of using Buddhist mindfulness techniques in psychotherapy often leads the psychologist to consider and analyse certain Buddhist tenets. Since Buddhist studies specialists have long analysed and considered Buddhist tenets, there appears to be a natural bridge between these two groups of researchers.

As with any academic endeavour, the analysis of Buddhist texts, just referred to as ‘Buddhist studies’, has its own specific, textually based methodologies. The other side of the coin then is how Buddhist studies specialists, using these meticulously developed methodologies, understand these same principles and practices. In this way, juxtaposing chapters written by Buddhist studies scholars and applied psychologists demonstrates the broad context from which certain Buddhist tenets inform the mindfulness-based psychotherapies.

Such an interface is necessary because the overall corpus of the early discourses and later exegeses of Indian and Tibetan Buddhism (such as found in the Gelukpa school) show that there are many more important and related tenets in the same context from which mindfulness principles and practices are found. It would be evident to any Buddhist studies specialist who would care to look that there is a dearth of input from specialists trained in the academic analysis of Buddhist texts in the current state of the Buddhism–Science dialogue. This indicates a need for a more formalized exchange between applied psychologists and university-trained specialists in Buddhist studies who are conversant in both the textual languages of Asian Buddhism and the academic methodologies of Western scholarship in the humanities.

**The use of language in Buddhist studies**

It is well known that the mindfulness-based interventions have been substantially influenced by the Pāli Buddhist understanding of Vipassana meditation. What then does the academic study of the Pāli texts have to tell us? First, let us briefly consider basic methodology in Pāli Buddhist studies. It has been and remains secularly, and also critically, oriented, even though it is not uncommon to find Pāli scholars practicing meditation. This allows for sober analyses of the texts, and of how the Theravāda tradition in particular and the Buddhist tradition in general sees itself. This perspective has been highly influenced by past and present scholars who were and are associated with the 120-year-old Pāli Text Society and in turn they have considerably influenced the more recent endeavours by academically trained specialists to systematically analyse both Mahāyāna and Tibetan Buddhist texts.

As for the Pāli material, it can be readily seen in the efforts of these scholars to correctly translate and explain the Pāli tenets, especially as seen in the collections of discourses (*sutta pitaka*) and discipline (*vinaya pitaka*), that the use of language has been understood to be, until the present time, of paramount importance. This is where the methodologies of textual and historical analysis come in.
Research findings are explained in language that is used analytically with reference to common sense, logic, rigour and argument all in an attempt to accurately explain the Pāli tenets. This basic methodology recognizes that philosophical problems arise in analysing and interpreting these principles due to the ambiguities of language and therefore it is fundamentally concerned with keeping interpretations as close as possible to what the texts say with respect to common sense and logic; this in the individual discourses vis-à-vis the context of the overall corpus of discourses. But it also requires the scholar to investigate the discrepancies that are found when examining the texts.

Consequently, it does not matter whether Buddhist studies is correctly considered a discipline in its own right. Based on the methodological importance of language and literary methodologies of analysing ancient religious texts (which could truly be termed ‘literary archeology’) used by several generations of Buddhist studies scholars, these specialists have incrementally built up a critical mass of polished commentarial material. Through this painstaking academic endeavour of falsification and verification, the current generation of secondary academic literature in English has been refined to the point that it is now supplying a very sophisticated commentary on what the Buddha taught as per the Pāli discourses.

Similarly, a critical mass of research findings has built up in applied psychology’s work on mindfulness-based interventions based on empirical research as to the efficacy of these ‘hybrid’ therapies. There is also theoretical work involved in articulating empirical conceptualizations of mindfulness. Hayes, for instance, in his article sees the mindfulness-based therapies as essentially scientific in their outlook and as such in need of ‘a naturalistic, theoretically sound, and empirically useful conceptualization’ rather than treating them simply as techniques. To what extent could a certain passage discussing mindfulness in an obscure Pāli sutta or Zen sūtra assist in such theoretical work? And for the Buddhist studies student or specialist, would this not supply an intriguing focus for an interdisciplinary research topic?

From a Buddhist studies viewpoint, this all has important implications for the future generations of specialists. Importantly, it will give the student of Buddhist studies a first hand look at how one’s academic training in Buddhist studies methodology can be used within the psychological and cognitive sciences wherein cutting edge medical technology and the methodology of first-person perspective are both in their investigative infancy in examining the effects of Buddhist meditation principles and practices. Hence in reflecting on the work of the applied psychologists, the Pāli textual claims that satipatthāna (the establishing of mindfulness) meditation practice gradually frees the individual from mental afflictions (vineyya abhijjhādomanassa cf. MN.1.55–63) opens the door for the Buddhist studies student or specialist to engage in any number of interdisciplinary, empirical research foci. This could also lead to a further investigation within Buddhist studies itself, with regard to related findings in psychology, as to the common threads that run through the various Buddhist meditation traditions.

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The structure of the book

The volume is divided into two parts, Part I, *An understanding of consciousness from traditional Buddhist philosophical perspectives* and Part II, *Mental afflictions: their arising and deconstruction*. In Part I, the editors have included articles on the nature of consciousness from a Buddhist philosophical perspective. Although this is primarily to provide the background necessary for readers to more thoroughly understand the research presented in the first and second sections of Part II, it is also to cogently illustrate the relevancy of Buddhist studies-led interdisciplinary articles on consciousness. From this standpoint, the volume actually has a triangular interface, with each section (the Buddhist philosophical perspective, the Buddhist psychology perspective and the applied psychology perspective) partaking of each other's fields. Thus the articles on Buddhist philosophical perspectives are working with developments in consciousness studies, cognitive science and Western philosophy, which are related to matters in academic psychology, as well as the early Buddhist understanding of sense consciousness. The applied psychology chapters in the second section of Part II are dealing with Buddhist mindfulness principles and practices, which imply issues of consciousness including its manifestation as emotional memory and memory in general. Finally, the group of Buddhist studies articles in the first section of Part II supply the basic Buddhist tenets, of which consciousness provides the framework and from which the Buddhist philosophical and applied psychology perspectives take their cues.

At this point an overview of the nine chapters of philosophical material in Part I is in order. The lead chapter has been crafted by John Pickering who has adeptly articulated a philosophically based historical framework for the interdisciplinary efforts of the volume. This is done by examining how postmodernism has given rise to a methodological pluralism, showing as it does the philosophical difficulties in holding a sole theoretical structure as being able to 'completely explain what the universe is like or how the human condition fits into it'. Pickering's work clarifies for the reader, whether specialist or informed non-specialist, a framework for understanding how and why Buddhist studies, consciousness studies and applied psychology have an imperative to continue examining each other's fields of endeavour.

Coming after Pickering, William Ames introduces Nāgārjuna's *Mūlamadhyamakakārikā* (or MMK), the root text of the Mahāyāna Buddhist Madhyamaka school. This text, perhaps Nāgārjuna's most important, qualifies him as being considered as one of the central patriarchs of the Mahāyāna tradition. In examining this text, Ames examines the role of emptiness in attaining Nirvāṇa. He begins by negating Nirvāṇa as an inherently existing object to be attained by a real self. He proceeds to show how emptiness is not other than dependent origination and that direct experience of emptiness is required for Nirvāṇa. As such this is the spiritual significance of emptiness in the MMK. Ames' discussion of the MMK then supplies the reader with a foundation in the
Mahāyāna philosophical tradition upon which to consider the issues brought up in the following article concerning the later Mahāyāna understanding of the ‘storehouse consciousness’ (ālaya-vijñāna) tenet as stated by the Yogācāra school and later developed by the Tibetan Dzogchen school.

Following Ames is Chapter 3, co-authored by David Germano and William Waldron, which complements Ames’ exposition of ultimate Emptiness insofar as it first examines the historical background to and evolution of the concept of Ālaya-vijñāna within early, Abhidharma and Yogācāra Buddhism and then outlines aspects of its further development in the Dzogchen philosophy of Longchenpa, the fourteenth century master of the Nyingma school of Tibetan Buddhism. Waldron and Germano, specialists in Yogācāra and Dzogchen, respectively, combine forces to elucidate this important but often obscure historical evolution. This work well illustrates how Buddhist traditions, like any living religion, continuously re-examine and reformulate their ideas in light of changing historical circumstances. Considering current interest in Dzogchen meditation in both Asia and the West, this article may also be helpful to Buddhism practitioners.

In alignment with Chapter 3 on Ālaya-vijñāna in Yogācāra and Dzogchen, Chapter 4 by Michael Sheehy offers further insights into the nature of awareness from a Tibetan Buddhist perspective. Here, we explore the semantic, contemplative and psychological differences between the mind of a buddha and the minds of non-buddhas. Through reading translated excerpts of a Tibetan Buddhist psychological text by the Third Karmapa Rangjung Dorje (1284–1339) entitled ‘Ordinary Awareness and Pristine Awareness, A Treatise on the Distinction’, along with commentaries, this essay examines how the 8 modalities of ordinary awareness interplay with the 5 types of pristine awareness. Discussing how the mind becomes trapped within the subject–object dynamic, and how the 8 modalities of ordinary awareness interrelate, Rangjung Dorje’s elucidations serve as a support for contemplative practice. Taking both the Sheehy and the Germano–Waldron treatments of the Ālaya-vijñāna teachings, this volume, to the best of our knowledge, has the deepest and most varied treatment of Ālaya-vijñāna in print up to mid-2005. As such, this should serve as a primary source of reference material for psychologists and cognitive scientists interested in a closer examination of Buddhist views of consciousness.

Subsequent to Sheehy’s exegesis is Guy Claxton’s delightful philosophical exploration of the comprehensive functioning of the whole brain, and the operations it performs, such as the ordering of competing desires. This first interdisciplinary chapter of the volume asserts that certain aspects of awakening can be explained by examining the brain’s normal operations. The brain’s extreme responsiveness to external conditions has developed into a ‘complicated, conflicting tangle of self-related concerns and when these are active, the brain almost literally ties itself in knots, trying to resolve the unresolvable’. When such extreme reactions are calmed, the qualities of enlightenment begin to arise.

The ensuing article then draws the reader to return to issues of the Ālaya-vijñāna as understood by the Dzogchen view of consciousness. Written by
Alan Wallace, this chapter is the volume’s second interdisciplinary endeavour that bridges consciousness studies and Buddhist studies vis-à-vis his artful intersection of how Dzogchen understands consciousness, and theoretical developments in physics, that in fact have implications for consciousness research. In reflecting on the Dzogchen view of consciousness, Wallace compares the concept of relative and ultimate vacuum states of consciousness with the definitions of relative and absolute vacuum states of space presented in contemporary physics. He regards these Buddhist and scientific views as complementary – each has its own strengths and weaknesses. The article has a wealth of information on important issues concerning consciousness and space, while raising thought-provoking issues and questions.

Michel Bitbol then tackles a difficult subject in epistemology that relates Madhyamaka tenets, along with certain aspects of Kant’s epistemological views. This article shows the flexibility of the Madhyamaka tenets in Western philosophical discourse. While defining the methodological approach in his chapter, Bitbol notes that the major similarity between the Kantian and Madhyamaka stances is the deconstruction of the tendencies towards reification in philosophy by showing the antinomies of reason. The dissimilarity lies in the purpose of such deconstruction. Kant sought a secure foundation for science and morals and used reason to construct knowledge. In contrast, Madhyamaka uses rational procedures in order to transcend them because they hinder moving from conceptuality to higher non-conceptual states of awakening. Bitbol explains how the interaction between the two systems could enrich both.

Chapter 8 by Flanagan also contributes to a foundational discussion of the relationship between Buddhist principles and Western philosophical assumptions by considering the concepts of virtue and happiness in Buddhist thought. The article focuses on the folk concepts of happiness and draws distinctions between them and Buddhist concepts of happiness. The chapter presciently analyses what often seem to be polar opposites with the view of offering scientists a framework on which happiness, à la Buddhist happiness, that is positive emotions, can be further researched. This is a cogent philosophical work that naturally flows between the interdisciplinary aspects of its investigation.

William Waldron returns in the next chapter with his own work exploring convergences between Indian Buddhist and selected scientific understandings of mind, focusing in particular on the conditions for the arising of cognitive awareness. Extrapolating from the necessary correlation between our cognitive faculties and its objects, both these traditions suggest that the world we experience is correlative with its various supporting conditions. Upon continued investigation, these conditions inexorably expand to include our bodies, minds, language and society. Moreover, in key respects these are also found to occur automatically and unconsciously, revealing further convergences between the scientific understandings of a ‘cognitive unconscious’ and the Yogācāra concept of Ālaya-vijñāna.

The final chapter (Chapter 10) of Part I is Victor Mansfield’s fluent examination of Carl Jung’s conceptions and misconceptions concerning the core ideas
given in the *Bardo Thödol* or the *Tibetan Book of the Dead*. Mansfield uses a personal instance of synchronicity to discuss similarities between Jungian and Tibetan Buddhist conceptualizations. Synchronicity as a topic of investigation is particularly informative since it has both philosophical and psychological connections to Buddhism.

**Part II**

Part II is divided into two sections. The first deals with Buddhist studies articles and how the Buddhist texts understand the problem of mental afflictions and their eradication through mindfulness meditation. The second section addresses how applied psychology, here represented primarily by articles studying the effectiveness of the mindfulness-based psychotherapies, likewise comprehends the reality of mental afflictions and how to disempower them.

An examination of the Buddhist studies section will show that the first three chapters, by three well-grounded specialists, establish the textual basis of the efficacy of mindfulness meditation. Chapter 11 is written by Ven. Anälayo, who has examined the various ways in which the early discourses explain mindfulness, for example, the relation of memory to mindfulness and to the mental quality of breadth of mind, a state of mind that is ‘broad, open and receptive’. Anälayo notes that the Pāli suttas, while not using the exact phrase of ‘breadth of mind’, deduces as much in that the discourses state that a ‘narrow mind’ is the result of not being mindful, while a developed habit of mindfulness results in a mind that is ‘broad’ up to ‘boundless’.

Next is Andrew Olendzki who has written on how the Pāli suttas understand *anatīta*, not-self, the companion teaching of the Buddha to his central teaching of mindfulness. The chapter has structured a philosophically based, practically oriented discussion of not-self in the Pāli discourses while relevantly framing it within the context of Buddhist teachings in the West; this by reflecting on demands made by the Buddhist teachings of not-self made on Western assumptions of selfhood and identity.

The philosophical aspects of the chapter include the overall discussion of how the Pāli material sees the self as an illusory, phenomenal structure and also specific points such as the linguistic issue of how the English language, as it is commonly used, operates with a reified self as the center of action. In consideration of the praxis side of the chapter, which the author has used to pragmatically anchor the philosophical discussion in the concerns of meditation practice, Olendzki’s exegesis offers a cogent discussion, interspersed with interesting sutta quotes, of how grasping after the objects of experience conditions the impermanent arisings of the self. He offers various insights into this process and concisely examines how mindfulness can turn back this habit of grasping and ‘self building’.

Finally, James Apple investigates how Tsong-kha-pa, the fifteenth century founder of the Gelukpa school (of Tibetan Buddhism, of which HH the fourteenth Dalai Lama is the current lineage holder), understood the arising and purification
of mental afflictions. Apple’s exegesis is based on Tsong-kha-pa’s Great Treatise on the Stages of the Path to Enlightenment, which is perhaps the most celebrated Buddhist meditation manual in the history of Tibetan Buddhism. Apple’s approach is systematic and focused as he discusses Tsong-kha-pa’s views saying, for instance, that itself is the root of mental afflictions. Moreover, although Tsong-kha-pa adheres to the general Buddhist tenet that the mind’s natural state is luminous and pure he, in reflecting on other Buddhist philosophical views, emphasized that this does not mean that the mind has always been primordially free from mental afflictions. Instead, the luminosity and purity of the mind signify the potential to be free from negative mental afflictions. In this way, he has shown his philosophical preference for Nāgārjuna’s Madhyamaka school. These and other discussions in Chapter 13 highlight how Buddhism sees that which mindfulness-based psychotherapies are attempting to rectify.

Following these three classic Buddhist studies articles come two Buddhist studies-led interdisciplinary chapters (Chapters 14 and 15) by Michael Drummond and Mu Soeng. In his work, Drummond analyses the Vipassana meditation technique of the observation of bodily feelings as taught by S. N. Goenka, with reference both to Eugene Gendlin’s historically important contributions to Experiential psychotherapy and to the Pāli suttas. Both the Pāli system, of which Goenka is representative of, and Gendlin employ the observation of bodily feelings in their goal of deconstructing mental afflictions. Although they are not generally viewed as sharing similarities in their therapeutic approaches, this chapter dissects the techniques used by each and demonstrates their common internal structures.

Mu Soeng then discusses Zen Koan practice as a vehicle for mental health with reference to psychological insights of this practice by the psychotherapist John Suler who ‘has done one of the most effective explorations of parallel breakthroughs that take place in koan practice and psychotherapy’. Mu Soeng reminds us that koan practice is sharply focused on the delusions that manifest as a result of seeing the personality as a permanent, solid entity, an ontologically stationed self. Thus, the koan practice strips away these layers of deception which in fact are nothing more than the extension of the self and in so doing ultimately deconstructs the self as a ‘self-validating’ entity.

These two chapters further develop the way forward for Buddhist studies-led interdisciplinary articles that examine the experience of meditation at the comparative level of tenets guiding meditation practice with psychotherapeutic insights into personality change.

The section closes with Christopher Tori’s wide-ranging and methodical inquiry into the introduction of Buddhist teachings and practices in the scientifically informed, pragmatic, and persuasively Protestant society of the United States. Tori reviews the academic literature on this issue and its implications including an examination of the social and cultural characteristics that facilitated the transference of Asian meditation traditions to an Occidental setting. He persuasively argues that mindfulness meditation is (and will continue to be) the central organizing factor in American Buddhism.
As a whole, these dynamically written articles offer a concise view of the foundation from which the mindfulness-based interventions have sprung, covering both the principles and practices of Buddhist mindfulness meditation, as seen in the ancient texts and as practiced today.

Considering how today’s Buddhist mindfulness meditation is being utilized in mindfulness-based and other related psychotherapies, the reader will then turn to the second section of Part II. As described in Tori’s overview of the development of both psychotherapy research and contemporary practice, there have been several syncretistic paths by which Buddhist perspectives and thought have been influencing development of contemporary therapeutic practice for over 30 years. A significant influence on the integration of meditative techniques into therapy has come from a natural melding of Buddhist approaches to understanding optimal human functioning and developments within clinical and research psychology. Most contemporary psychotherapy researchers and scholars in the therapeutic applications of meditation and mindfulness came to this approach first through personal experience in meditation, either during travel to Asia (i.e. Goleman and Kristeller, among others), within the United States/Europe (Marlatt and Jones), or both. They then sought to understand and use these experiences, both from within the traditional Buddhist literature and from within their own training background in psychology.

Another important line of development was the growing appreciation of the need to address the interaction of mind and body within both psychology and medicine. Western medicine, growing out of European philosophical traditions, had substantially disengaged the workings of the mind from an understanding of physiology. Although the disciplines of neuropsychology and psychophysiology had been established early in the twentieth century, by the 1960s and 1970s virtually no programs in clinical psychology (or in medical schools) took an integrated approach to understanding mind–body processes. Early research on the psychophysiology of meditation, informed by both the Buddhist and Hindu philosophical traditions in which integration between mind and body was assumed, played a major role in creating the new field of mind–body medicine. For example, Goleman was part of a laboratory group at Harvard, with Richard Davidson and Gary Schwartz, that conducted some of the early psychophysiological investigations of meditation effects. Davidson and Goleman continued their line of investigations focused on understanding the neuro-physiology of emotional experience. Kristeller was also influenced by that research, integrating Schwartz’s self-regulation theory and her understanding of Buddhist principles into the treatment of eating disorders beginning in the early 1980s. Paradoxically, one of the foremost sources of influence on the continued development and dissemination of mindfulness-based meditation within mind–body medicine is neither a psychologist nor a physician. Jon Kabat-Zinn, a molecular biologist by training, provided a model for bringing mindfulness meditation practice to the general public, first with chronic pain patients and then more broadly. While holding true to Buddhist principles (he was informed by his deep personal practice within both the Zen and Vipassana traditions), he strove to
integrate these principles with his knowledge of physiology and anatomy. He also created one of the first entirely secularized models for teaching mindfulness meditation in order to make it acceptable within a medical setting, and because he believes that the truth lies in the direct experience of practice. In creating a viable model for therapeutic application of mindfulness meditation, yet one which is informed by both Buddhism and therapeutic principles, his work has substantially influenced that of many others including Kristeller, Teasdale and Marlatt as noted in their chapters that follow.

Another important path to the scientific investigation of meditation, again influenced by personal experience, was through cognitive-behavioural approaches to psychotherapeutic change. Several of the researchers represented in this volume, including Marlatt and Kristeller, found that their personal experiences with meditation or mindfulness-type practice provided a path to personal development that was not fully understandable within existing principles in cognitive and behavioural psychology, yet could be understood by integrating Buddhist perspectives into theories of conditioning and cognitive science. While drawing to a limited degree on textual Buddhism through formal and informal study, they primarily have worked with mindfulness theory and practice from their own backgrounds in cognitive-behavioural theory, recognizing that mindfulness approaches contribute an approach that extends and complements cognitive-behavioural theory and therapies. Furthermore, they have brought their training as scientists and researchers to exploring the underlying mechanisms involved in the therapeutic applications of mindfulness practice. For others, notably Hayes and Teasdale, the linkage is in the other direction; while working primarily within contemporary psychological theory, they developed models of psychological processes that others then encouraged them to consider within the context of Buddhist mindfulness theory. In doing so, they found an overlap in understanding that is compelling, because it points to the universality of human experience. As Hayes has noted, we may be onto something when very different roads lead to similar destinations.

The section then opens with Daniel Goleman’s overview (Chapter 17) of the Mind–Life conference with HH the Dalai Lama in Dharamsala, India in March, 2000. The issues examined in Goleman’s chapter revolve around the Buddhist and scientific views of negative emotions (i.e. how they arise and how they can be deconstructed, how positive emotions can be developed and how children can likewise be educated to identify and constructively work with negative emotions). The discussions also include the role of meditation in both working with negative emotions and in developing positive emotions. The article closes with an overview of the neurological measurements done at the University of Wisconsin under Richard Davidson and at the University of California at Berkeley under Paul Ekman and Robert Levenson on a Tibetan Buddhist monk while engaged in various meditation practices.

Following Goleman’s chapter come the first three specialists working with mindfulness-based interventions. Jean Kristeller, Alan Marlatt and John Teasdale
have written on their specific mindfulness-based interventions that they and their teams have developed to address specific psychological problems. Kristeller’s chapter (Chapter 18) examines her work on Mindfulness-Based Eating Awareness Training (MB-EAT) that applies mindfulness meditation and principles to changing disordered eating patterns in obese individuals diagnosed with binge eating disorder.

Marlatt and his research team on the other hand describe the development of their Mindfulness-Based Relapse Prevention programme while exploring the contribution of Buddhist psychology (as it applies to mindful observation of bodily feelings and the contents of the mind) to psychological interventions aimed at the prevention and treatment of addictive behaviours. Finally, Teasdale describes a programme that directly melds cognitive approaches to treating depression with the Mindfulness-Based Stress Reduction (MBSR) programme developed by Jon Kabat-Zinn. The Mindfulness-Based Cognitive Therapy programme that he and his colleagues have developed significantly reduces the risk of relapse, compared to treatment as usual, in individuals who have had three chronic cycles or more of clinical depression.

Following in order, the Hayes chapter (Chapter 21) then offers theoretical explanations on his Acceptance and Commitment Therapy (ACT). The Hayes team compares how ACT uses mindfulness with other various therapeutic interventions that also use Buddhist mindfulness principles and practices as their main tool of rectification of emotional-cognitive distress. They further maintain that a ‘naturalistic, theoretically sound, and empirically useful conceptualization of mindfulness is needed’. With this they offer that mindfulness practice can be understood as the voluntary, moment-by-moment, interaction with cognitive and emotional events. However this is enjoined without succumbing to the normal distortions of interpretative evaluations of such events. This resistance to yielding to distorted interpretations is termed ‘defusion’ and it is held that this underlies the ability to maintain non-evaluative contact with these events. In this way mindfulness embraces an accepting and defused contact with the present moment.

Subsequent to Hayes, the Ciarrochi chapter (Chapter 22) is the second of two articles that examines the theoretical aspects of Acceptance and Commitment Therapy (ACT). Ciarrochi introduces the Emotional Intelligence technique of effective emotional orientation to ACT, in which one learns to continue the pursuit of one’s ambitions despite difficult emotional experiences. In this way mindfulness is of critical importance in allowing the individual to stay abreast of one’s ongoing emotional life. He then gives a review of the research that demonstrates a link between how one experiences emotional difficulties and negative indices of well-being. The tendency of experiencing emotional problems as threats rather than challenges, including the inclination to escape rather than to face the difficulties, has been associated with depression, anxiety, hopelessness, suicidal ideation, health complaints and neuroticism. This all indicates that the observation of one’s experience of negative emotion provides the individual with a powerful tool to retain her or his independence amidst difficult psychological situations.
Coming after these five chapters, all of which employ mindfulness principles and practices, is Jeremy Safran’s elucidation (Chapter 23) of how the therapist’s own mindfulness meditation practice is critical in monitoring her or his therapeutic relation with the client. Termed ‘metacommunication’, Safran points out how the psychoanalyst can use mindfulness in her or his clinical practice. Clearly it would be equally useful to therapists working within any therapeutic approach.

Chapter 24 by Levine, which is the final one of the section, then gently guides the reader to reflect on the earlier contributions of psychotherapeutic methods. He examines insight therapy, in which the understanding of oneself and others is further developed, and cognitive therapy, wherein individuals learn to attend to and systematically restructure negative mental habits (which has several parallels in the Pāli suttas, for example Majjhima Nikāya’s Vitakkasanthāna Sutta). Levine correctly reminds us that these methods, also including systematic desensitization to irrational fear and assertiveness training, where equanimity and right speech are taught as the alternative to anger and fear, are a natural support for the an individual’s determination to live according to Buddhist objectives. In consideration of the previous reports on psychotherapeutically adopted mindfulness practice, it might be interesting to see a hybrid approach developed with the therapeutic techniques discussed by Levine.

The book concludes with an epilogue coauthored by editor D. K. Nauriyal and contributor Christopher Tori. The chapter gives voice to the volume’s contributors regarding ‘where we are’ and ‘where are we going’ with respect to the interface between the scientific study of the mind and Buddhist thought. It was noted that religion, qua religion, is seen as being based on different assumptions than science and hence eliciting opinions, favourable and skeptical, as concerns the Buddhism–Science dialogue, was seen as an optimum way to close the book’s journey. Amongst these differing opinions presented, it is interesting to note that the authors unanimously agreed that there is considerable appreciation, amongst themselves and their colleagues, of the key Buddhist views connected to consciousness, self-control and ethics.

In closing, it has become clear to the editors, in the course of working with all of the contributors to the book, that they understand that theory and practice must go together. In viewing the broader historical perspectives and interactions between geographical regions and cultures, the transcending of the traditional boundaries of academic inquiry by specialists in applied psychology and Buddhist studies reminds us that many cultures were greatly influenced by the Buddhist teachings as they grew out of India so many years ago. The mindful observation of bodily and mental phenomena is, and continues to be, a common heritage of all humanity.

Notes

1 This is to say to attempt to correctly understand what a given text is saying about itself.
3 The term ‘vipassana’ is translated as ‘insight’ that which one attains from practicing any one or all of the four establishings of mindfulness (sati\rthāna). For a full rendering of how the Pāli suttas understand this key meditation teaching of the Buddha, see Anālayo (2003) Satipaṭṭhāna: The Direct Path to Realization, Kandy: Buddhist Publication Society.

4 To cite several instances, Lance Cousins (http://www.samatha.org/ireland/), Peter Harvey (http://www.samatha.org/localgroups/) and Rupert Gethin (http://www.sharpham-trust.org/program.htm) are three influential Pāli Buddhist studies scholars who practice and often teach Buddhist meditation. All three web sites were retrieved on January 3, 2005. This of course brings to question the impact of meditation on a Buddhist studies specialist’s scholarship. How and to what extent would a strong daily meditation practice, say of two hours a day, plus remaining mindful throughout one’s daily activities and interspersed with regular periods of retreat, support a correct interpretation of what is being said in the ancient texts of any Buddhist tradition? To what extent would the quality of the work of, say, Richard Gombrich be due to his meditation practice, or if he is not practicing meditation, due to the power of his logic and common sense, as well as with adequate language skills, through which he did such notable research in uncovering the details of the Buddha’s engagement with his Brahmin interlocutors? (see, Gombrich, R. (1990) ‘Recovering the Buddha’s Message’, in Buddhist Forum: Seminar Papers 1987–1988, Skorupski, T. (ed.) London: SOAS, pp. 5–23; reprinted in Earliest Buddhism and Madhyamaka, Reugg, D. and Schmithausen, L. (eds) Leiden).

To take the same question into the Buddhist sangha, the Thai monk scholar and meditation master Buddhadāsa Bhikkhu urged that Buddhaghosa’s commentarial view of Dependent Origination, which reflects three separate transmigrations in its 12 factors, three contiguous lifetimes of an individual’s conscious continuum according to past volitional actions (symbolic of the endless transmigration in samsāra), is seriously flawed. In place of this traditional pan-Buddhist view, he asserted that the suttas offer only a cognitive view of Dependent Origination. This then is a model showing how dukkha, and therefore the self, arises and falls from experience to experience and how to reverse this process and gain awakening in this lifetime (Buddhadāsa Bhikkhu (1992) Pa\rccasamupāda: Practical Dependent Origination, Nonthaburi, Thailand: Vuddhidhamma Fund).

This view caused considerable controversy in Asian Buddhist circles and there were no doubt monks who also were deeply practiced in meditation, as well as being versed in the Buddhist textual traditions, who disagreed with Buddhadāsa’s views. How are we to then understand these incongruencies? In which way would it be possible to ascribe to the insufficient level of meditational attainments? Such questions seem worthy of PhD research.

5 Two pertinent and interesting cases indicative of the self-correcting research methodology in Pāli Buddhist studies will be mentioned here. First, there is now little doubt about the correct understanding of anattā (not-self). This might seem a natural understanding but in fact it was not always the case. For instance the Pāli scholar and past president of the Pāli Text Society (1959–1981), Ms. I. B. Horner (who translated the Vinaya Piṭaka to English: (1949–1951) The Book of Discipline, in 5 vols., London: Pāli Text Society) went on record (Horner, I. B. (1936/1979) The Early Buddhist Theory of Man Perfected, Delhi: Oriental Books. p. 41) arguing that ‘The self (ātā) as both divine and human was no more repudiated by early Sākya (the Buddha) than were either the Ātman as Brahman, or ātman as the self of man in the Upanisads.’ In short, she held that the Buddha did not repudiate, in his discourses, an inherently abiding permanent self. This is a view that was later fully discredited by Western academic scholars of the Pāli suttas. It is also the process that the West must go through in the transplantation of the
teachings to the Occident. It has to be digested and then explained by individuals within the receiving culture. In the case of Western culture with its Christian roots, issues of self and not-self were difficult to grasp in the early decades of the twentieth century. A more recent detailed account of the Buddha’s full repudiation of self in general and in relation to the early Upanisads can be read in Gombrich’s (1997) *How Buddhism Began*, New Delhi: Munshiram Manoharlal. It was also a subject that his predecessor Jayatilleke (1963/1980) dealt with in his *Early Buddhist Theory of Knowledge*, Delhi: Motilal Banarsidas.

A second and more recent academic endeavour to falsify another scholar’s view (on which it seems the jury is still out) was Bhikkhu Bodhi’s critique (in ‘A Critical Examination of Nāṇavīra Thera’s “A Note on Paṭiccasamuppāda,”’ parts 1 and 2, *Buddhist Studies Review* (1998) 15, 1 and 15, 2, *passim*) of the British Bhikku Nāṇavīra (and by extension Thailand’s Buddhadasa Bhikkhu), both of whom refuted the Pāli commentarial tradition’s Three Lifetime Interpretation of Dependent Origination. It is also worth noting that Bhikkhu Bodhi has further elaborated on this subject in his introduction to the Nidānatasamuttaya section of the Saṁyutta Nikāya (Bodhi Bhikkhu (2000) (trans.) *The Connected Discourses of the Buddha*, Summerville, MA: Wisdom, pp. 515–528).

6 For example, the work of the British school of Pāli Buddhist studies as represented by Richard Gombrich, David Kalupahana, Lance Cousins, Y. Karunadasa, Peter Harvey, Rupert Gethin, Steven Collins, George Bond and Damien Keown. To this must be added the expert English translation of, among others, the Majjhima Nikāya by Bhikkhus Nāṇamoli and Bodhi (1995) *The Middle Length Discourse of the Buddha*, Kandy: Buddhist Publication Society and of the Saṁyutta Nikāya by Bhikkhu Bodhi (2000) *The Connected Discourses of the Buddha*, Summerville, MA: Wisdom.
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D. K. Nauriyal
Michael S. Drummond
Y. B. Lal
Part I

AN UNDERSTANDING OF CONSCIOUSNESS FROM TRADITIONAL BUDDHIST PHILOSOPHICAL PERSPECTIVES
The First-Person Perspective in Postmodern Psychology

John Pickering

Prologue: What Nietzsche Sought

Nietzsche was among the first to recognize the predicament in which human beings had been left by the scientific revolution. In his powerful, aphoristic way, he depicted, without regret, the death of God, the passing of the major value-giving myth of Western culture. He recognized that this left a void, which the science of his day could not fill. He sought a new science, one that would do justice to the potentialities of human beings.

Nietzsche’s historical analysis marks the end to the belief in the existence of a uniform value-giving world view. His perspectival attitude to truth and value points towards the pluralist condition of knowledge that had to take its place. While it may be less secure than the certainties of modernity, it is, or at least Nietzsche hoped it could become, a condition in which radical transformation may be possible. This is the postmodern condition in which we now find ourselves.

The abuse of “Postmodern,” to mean obscure or pretentious, is merely an expression of anxiety. Set this reactionary protest aside and it is clear that something important is at issue. This is a general reorientation of culture which has gradually opened the way for new syntheses of traditions.

For psychology it is an opportunity to move on, to discard restrictive metaphysical assumptions inherited from previous periods and to diversify our understandings of mental life by enriching the means used to study it. This opportunity is being taken up by a global community whose resources are the more powerful for being drawn from a wider range of disciplines than would have been acceptable even a few decades ago.

Here we will look briefly at the impact of postmodernism on psychology and then at the status of subjective experience as a source of psychological data.

What is Postmodernism Good For?

The plurality of views and practices that characterize the postmodern condition are the complement of what Lyotard called “skepticism towards metanarratives”
Lyotard noted that it has become difficult to accept that any single set of ideas or practices could completely explain what the universe is like or how the human condition fits into it. In this more plural condition of knowledge, the over-commitment to objectification that has restricted psychology can be eased and the relationship between systems of thought like Buddhism and Western psychology may be treated more evenhandedly.

This is to rediscover the spirit of William James’ radical empiricism. That is, nothing found in experience is to be denied and nothing is to be admitted save that it can be found in experience. This, crucially, includes the experience of experience itself. James (1950), in describing the experience of mentally searching for something that hovers on the edge of recollectability, puts it this way, on page two of his monumental *Principles of Psychology*:

> [N]o mechanical cause can explain this process, nor can any analysis reduce it to lower terms or make its nature seem other than a datum, which, whether we rebel or not at its mysteriousness, must simply be taken for granted, if we are to psychologize at all.

This is not to say that James wished the mystery away. Later, on page 182, he states his belief that there are necessary limits to what human beings can know about their own minds:

> [N]ature in her unfathomable designs has mixed us of clay and flame, of brain and mind, . . . the two things hang indubitably together and determine each other’s being, but how or why, no mortal may ever know.

This quote comes from a passage in *Principles* in which James contrasts one for whom only a soul could explain human mental life with one who takes a firm positivist line. His remarks are offered to “. . . he positivistic one who wishes to give a tinge of mystery to the expression of his positivism . . .”

Despite these limitations on what we can know about it, James warned that, consciousness must not be neglected if psychology is to have any credibility. This warning was largely ignored as the subject developed. This was, in part, because modern psychology, the issue of a nineteenth-century union between philosophy and physiology, was conceived at the highpoint of confidence in science. The successes of the natural sciences, and the prodigious technological progress that came with them, made it seem obvious that nature could be completely understood.

An example, among many, was the biologist Ernst Haekel who, writing at about the same time as James was writing *Principles*, gave us this vision of a completely knowable universe:

> The great abstract law of mechanical causality (mechanische Kausalität), now rules the entire universe, as it does the mind of man. It
is the steady, immutable pole star, whose clear light falls on our path through the labyrinth of the countless separate phenomena.

(Attributed to Haeckel in Barfield 1926: 188)

This confidence was felt in the life sciences too. James is an honorable exception among the first modern psychologists in holding to a more modest position on what science could reveal about the mind. Other founding fathers, Helmholtz for example, expected that psychology would eventually become a branch of physics. Religious approaches to mental life were to be dismissed as dogmas inherited from the Dark Ages. Thus humiliated, they would be left behind as scientific psychologists ascended into the broad, sunlit uplands of rational acquaintance with their own condition.

To facilitate this heroic progress, the world and the mind were to be regarded with dispassionate objectivity. This austere detachment, it was assumed, would make science immune from distortion by prejudice and superstition. Its discoveries could thus be used to create a benign and just society. This ideal was expressed by an intellectual community stretching from the philosophes of the Enlightenment to the scientists of the present day. The common objective is to investigate the world in a rational and systematic way and to use what is found for human good. This was the Enlightenment Project, the metanarrative of modernism.

Postmodernism is a rupture in this project. The violence of the twentieth century showed all too clearly that scientific rationality does not of itself ensure a secure and fair life for all. The prospects for violence in the coming century being greater, it shows all too clearly that the forces unleashed by science and technology cannot be contained. The resulting globalized geopolitics, what Giddens calls the “runaway world,” is a central feature of the postmodern condition (Harvey 1990; Giddens 2000).

Informed skepticism towards the Enlightenment Project or any such all-embracing metanarrative is a major feature of the postmodern condition (Lyotard 1984). It applies to any system of concepts and practices, including science and Buddhism. Buddhism cannot be usefully approached as a matter of faith. Equally, faith in science as the systematic, progressive, and authoritative disclosure of pre-extant reality, has to be abandoned. At the postmodern turn we have to recognize that:

The Enlightenment’s ascription to science of a prescriptive authority whereby other forms of knowledge can be humiliated is itself an illusion…a unitary scientific method, even a scientific world-view, is merely one of the many superstitions of enlightenment cultures.

(Gray 1995: 154)

To ascribe to Buddhism truths that cannot be questioned will not do either. Instead, the task is to create a pluralist framework, within which Buddhism and science take their places among many ways of discovering, as the biologist
John Haldane once put it, that “the universe is not only stranger than we suppose, but stranger than we can suppose.” (This quotation is widely attributed to Haldane but an exact source is seldom given, see e.g. Bryson 2003.)

Indeed, scientific discoveries during the twentieth century have undermined the worldview that made science appear so universal at the end of the nineteenth century. Phenomena at the subatomic level demonstrate that detached observation is a special case and that what it discloses is fundamentally incomplete. The physical world has turned out to be subtly interconnected at all levels. Discoveries in the life sciences likewise show that inappropriate treatments of living systems, which reduce organisms to mechanisms, provide only a limited type of understanding. Organic systems are complex wholes whose self-organizing activity is intrinsically historical. They evolve to exhibit emergent properties not pre-figured in any particular part of the system. Thus no inventory of parts at a particular instant, however accurate and complete, could of itself explain how the system as a whole behaves.

This metaphysical shift needs to be recognized in psychology, since its major epistemological gambit is still little more than the analytic decomposition of complex wholes into supposedly simpler parts. This will not get it very far with its principal object of interest, the dynamic unfolding of human mental life. This is the most complex process known to science, part of what Whitehead called the “creative advance of nature” (Whitehead 1920: 164). Within this advance, patterns of organic causation dialectically and seamlessly unite parts and wholes. Attempting to isolate particular components of this advance, and hence to prioritize particular types of causal relationships, is a strictly limited methodological gambit and as a general epistemological framework it is quite inadequate. For psychology to retain the reductive ethos and mechanistic metaphysics of nineteenth-century science is an encumbrance.

This is not to reject science’s findings or its methodology. It is, however, to recognize that what they suggested was universal and absolute is actually limited, and historically relative. This is taken as a sign of intellectual maturity by Richard Rorty, a philosopher sometimes identified with postmodernism, possibly to his dismay, since he thinks “The word ‘postmodernism’ has been rendered almost meaningless by being used to mean so many different things” (Rorty 1999: 262).

But the postmodern reappraisal of the authority of science would certainly meet with his approval. In commending the work of Thomas Kuhn, Rorty notes: “Kuhn’s major contribution to remapping culture was to help us see that the natural scientists do not have a special access to reality or to truth” (176).

Rorty notes that the postmodern turn means that it is no longer possible to establish what he calls a “normal discourse.” This is a primary explanatory vocabulary, almost always identified with scientific concepts, to which all other ways of describing the world are secondary. The idea of a normal discourse lies at the heart of the fear of science. It is the fear that the world, and the human condition with it, will be made too comprehensible. As Rorty puts it “The fear of science, of ‘scientism,’ of ‘naturalism,’ of self-objectivation, of being turned by too much knowledge into a thing rather than a person, is the fear that all discourse will become normal discourse” (Rorty 1980: 388).
Like John Dewey, his role-model, Rorty rejects the idea that scientist and philosophers discover eternal, pre-extant, truths. Instead, they contribute to the evolving conversations through which human beings coordinate their views of the world and attempt to lead their lives together. A paraphrase of Rorty’s position would be: “truths are made, not found” (see Rorty 1999: xvii).

This does not mean that enthusiasm for science has diminished. Presently, cognitive neuroscience and genetics have the totemic role that physics and chemistry had at the start of the previous century. However, the cultural context is different. Science and technology are treated with more caution rather than being hailed, uncritically, as progressive. One reason is increasing concern about the ecological impact of technology. Another, more directly the result of the postmodern turn, is that that scientific discoveries are not now taken to be the privileged disclosure of how the world “really is.” Instead, they are regarded as provisional creations suffused with cultural values, part of what Ernest Becker called the “fragile fiction” that people construct in order to make sense of a world not of their making (Becker 1971).

The theoretical and methodological pluralism of the postmodern turn help to enrich the fiction and make it more resilient. Practices and insights from other systems of knowledge are entering into a new and more balanced discourse with science (Griffin 1988). This is not mere “anything goes” relativism, but a move towards the discursive production of knowledge through dialogue. Rather than one particular tradition claiming to have the final say, new meaning is synthesized in informed conversations between traditions. Inevitably, the geopolitical facts of life will mean that from time to time some traditions will have greater influence than others. Presently, the globalization of knowledge and the Westernization that follows it is distorting Eastern traditions but in time we can expect a more balanced interchange to emerge (Goonatilake 1999).

In sum, what has been proposed here is that postmodernism, interpreted constructively, is a condition of radical pluralism in which new meaning is synthesized in conversations between traditions that may formerly have been assumed to be too disparate. No one conceptual vocabulary can be assumed to be the final word on anything; this takes in both scientific and religious traditions. Hence Western psychology may interact with Buddhism in a more evenhanded and productive way. This interaction has been expanding for two decades or so, and the postmodern turn has helped to make it more informed and productive.

Towards postmodern psychology

Postmodernism has broadened and diversified both the theory and methods of psychology (Kvale 1992; Gergen 2001). This has led to the changes to be sketched in the following sections, which concern the decline of Cognitivism and the return of consciousness as a central topic of mainstream research. Additionally, bodily feeling and experience, primordially matters of the first-person perspective, are once more being accepted as primary psychological data. Here,
and later, “feeling” will be used to mean *qualia*, the experience of perceiving, thinking and acting. It is because of feeling in this sense that “Consciousness is what makes the mind body problem really intractable” (Nagel 1974: 435).

The reappearance of feeling, of the first-person perspective is a welcome, if overdue, change in psychology. It is overdue because two of the major paradigms that shaped the discipline in the twentieth century, Behaviorism and Cognitivism, both adopted the implicit mechanistic metaphysics of nineteenth-century science. As a result, both ignored William James’ warning and were equally dismissive of consciousness.

Behaviorists considered subjective mental processes to be methodologically intractable. Since they could not be observed directly or quantified, no properly scientific account could be given for them. Therefore, thoughts, feelings, emotions, and consciousness were virtually ignored. It seemed almost to be a point of honor to deny the first-person perspective any place in psychology, no matter how significant they were felt to be in everyday lived experience. They were merely phenomenological illusions that would, as part of the heroic ascent of science, eventually be dispelled by more objective data.

Accordingly, Behaviorists limited themselves to observing the external manifestations of mental life. This strategy was successful up to a point and the period left a legacy of effective techniques. But it also had major shortcomings. Many experiments of the era were unnatural, animals pressing levers in cages being the paradigmatic case. Behaviorism was also unable to provide a satisfactory account for reflexive and open aspects of human mental life, such as language and creative problem-solving.

Concern about these shortcomings reached a critical mass around 1955, at which point Behaviorism was rather suddenly displaced as psychology’s central paradigm in the “Cognitive Revolution” (Gardner 1985). Cognitive psychology, or Cognitivism as it will be termed here, approached the mind as if the brain was an information processing system like a computer. Computational models of mental processes were tested against human performance in more naturalistic experiments on perceiving, remembering, making decisions, solving problems, and using language.

This strategy too has been successful and Cognitivism has provided the conceptual and methodological resources of mainstream psychology until quite recently. Significantly, it was assumed that Cognitivism would permit the computational essence of mental life to be separated from culture and even from biology (Gardner 1985: 6). Moreover, Cognitivism, like Behaviorism, aimed to describe mental life in third-person terms. How the mind seems from the outside was taken as primary. How it seems from the inside, the first-person world of experiences, feelings, and value were secondary. This experiential world was something that would be dismissible as a phenomenological error once mental life had been properly understood computational terms. To propose that the essence of mental life lay in computation, and hence could be formalized, was seen as a way to create a universal theory of cognition (Newell 1991). It is in this
sense that Cognitivism exhibits both methodological and conceptual continuity with Behaviorism.

Hence, Cognitivism, like Behaviorism before it, left psychology at a reductive impasse. To seek a formal computational account for human mental life is to search for something that cannot be found. It is a Cartesian conceit that harks back to the Enlightenment Project. It is to try to frame the “Normal Discourse” that Rorty has shown to have become impossible. Although Cognitivism has been useful, computation per se no longer seems a plausible candidate for a universal psychological theory.

Considered against a backdrop of the realpolitik in Western universities, Cognitivism can be seen to be an attempt to give psychology the identity and authority of natural science (Pickering 2000). Following the postmodern turn this restriction is easing. Alternatives to Cognitivism, such as Connectionism and the dynamic systems approach, have appeared. Their significance here is that they are part of postmodern psychology and that they help to open the way to more informed interaction with Buddhism.

Connectionism is a critical response to the idea that the mind is what the brain does and what the brain does is, essentially, computation. This cannot be a helpful proposal since brains lack the functional architecture to carry out computations in the way that computers do, at least, computers operating according to the now-conventional von Neumann theory of computation. Von Neumann stated this quite clearly at the dawn of the age of modern computing theory (von Neumann 1958). Brain activity is far less homogeneous than computational theory requires. Unlike computers, where information is stored and processed at well defined locations, brains comprise densely interconnected networks.

Connectionism is an attempt to understand this activity from the bottom up, as it were, by making models of the dense interconnectivity and massively parallel activity of natural nervous systems. These models have inputs from and outputs to their environment. Some of their connectivity is programmed in advance but some is the result of activity in the network, which in turn depends on the activity in the world around it. The capacity for self modification is built into networks which, hence, can become actively attuned to their environment.

How well networks will serve as psychological models, is not yet clear. Even the very largest networks so far constructed are minute when compared with natural nervous systems. They are nevertheless proving to be of technological significance in the recognition of auditory and visual patterns. Connectionism also provides a powerful conceptual vocabulary in which to restate some enduring questions, such as the interaction between nature and nurture.

Whatever their significance turns out to be, the point of interest here is that Connectionism is necessarily historical. Cognitivism sought the essence of mental life in timeless formal principles which were independent of the history of the mental being concerned. Connectionism, by contrast, is a psychological theory without essences. Where Cognitivism proposed rules and representations, Connectionism proposes only connections, activity, and history. Any particular
state of a network, and thus by extension any mental state, is explained in terms of
the conditions that gave rise to it. There is a striking resemblance here to Buddhist
view that mental life reflects the ceaseless arising of interactive conditions.

Other critical responses to Cognitivism include dynamic systems theory and
theories of embodied cognition (Varela et al. 1991; Clark 1999). These hold that
mental life reflects the particular organic system in which it is expressed, in contrast
to Cognitivism which treats organisms as if their nervous systems were computa-
tionally identical. The embodied cognition and dynamic systems approaches, by
contrast, take the nervous system to be engaged in a cyclic process of adjustment to
the flow of action in which organisms participate. Now different organisms act in
fundamentally different ways. Accordingly, rather than treating all nervous systems
as if they performed identical computational functions, they need to be treated as
participants in unique patterns of activity. These patterns extend beyond the organ-
ism to reflect the particular conditions in which the activity occurs, activity in the
whole system is a constantly evolving state of sensitive chaos. The similarity to
Buddhist notions of interdependence and conditioned existence is again striking.

These developments indicate that psychology is reclaiming cognition from
computational reduction (Nunez and Freeman 1999). Mental life cannot be
formalized. Instead, it has to be treated as an aspect of organic action, inseparable
from the biological and cultural processes which are its vehicle. With the move
towards embodiment, and away from the hyper-rationalized computationalized
approach of Cognitivism, emotion and feeling are once again being treated as the
core of mental life (Damasio 1996, 1999). Moreover, the first-person perspective,
for so long exiled from the discipline is back. A number of psychologists are seeking
to bring together the resources of conventional scientific techniques with a sys-
tematic inquiry into the experience of participants in psychological experiments
(Jack and Roepstorff 2003).

It seems that William James’ warning, that psychologists should not forget the
primacy of the first-person perspective, is being recalled. That it was forgotten
shows how far Behaviorism and Cognitivism took psychology from the world of
everyday lived experience, where it is patent that feeling, not reason, is the
essence of psychological life.

The last two decades has seen an explosion of interest in consciousness, rather
as if something repressed had returned. Psychology has, as it were regained con-
sciousness, bringing psychology face to face with awareness itself (Chalmers
1995; Shear 1999). Consciousness is once again at the centre of the research
arena, where William James originally put it. It is a uniquely significant
phenomenon for scientific investigation since to investigate it properly; science
will have to enlarge both its methods and its worldview. Phenomenological
methods are increasingly used in psychology and since there is some unfamiliarity
and residual mistrust of them, it is being increasingly accepted that traditions
where such methods have been used for millennia will have something to offer.
These developments will be important in the interaction with Buddhism in the
coming decades, which is the concern of the next section.
Prospects, problems, and possible outcomes

During the eras of Cognitivism and Behaviorism, the attitude of mainstream psychology to religious traditions was essentially that of nineteenth-century science. The assumption was that, since they were concerned with beliefs, faith, and values, religions could have no real interaction with science, the latter being concerned with hypotheses, investigations, and empirically established facts. Faith and reason do not mix. To compare them was regarded as a category mistake.

Although this attitude has hindered contact with Buddhism, psychologists did occasionally note that it presents an account of mental life comparable with Western systems (e.g. Thouless 1940; Suzuki et al. 1970). There was also an increase in contact with Buddhism in the 1960s but it suffered from the superficiality of the then fashionable engagement with all things Eastern. Subsequently though there has been more informed work, especially in the area of dynamic psychology (e.g. Molino 1998; Safran 2003).

While the prospects for interaction are improving many limitations remain, some of them being distant echoes of the assumed opposition of science and religion. But, ironically, since science now provides most people with their creation myth, their image of themselves and an understanding of their relation to the rest of the universe, it has had to take on some of the cultural roles of religion. For most scientists this is unwelcome as it seems to compromise the integrity of science. But this is only true if science is saddled with being a uniquely authoritative, progressive human understanding, replacing all others.

Now science deserves a special place: it has permitted the prediction of events and has increased the technological control people have over their conditions of life to an unprecedented degree. However, the postmodern reappraisal shows that science reflects its cultural context, as any human system of ideas and practices must. To frame a hypothesis about a phenomenon is to express a belief about what sort of a thing it might be. Likewise, choosing a method of observation expresses a belief about how a phenomenon will disclose itself. The choices and beliefs expressed in science reflect their cultural context just as those expressed in religious traditions do.

It is unrealistic to propose that science is somehow outside the more universal arena of inquiry, within which our cultural forms, such as Buddhism, also approach the common problematic experiences of human existence. Buddhism has promoted investigations of mental life that have been critically and systematically developed over millennia, mainly through the use of first person techniques. There is every reason to suppose that these will complement the third-person finding arising from scientific investigation of the mind. It is unhelpful to assume there can be no interaction between them merely because of the supposed incompatibility of science and religion inherited from the last few centuries of Western thought.

More helpful is the paradigm shift, itself part of the postmodern turn, in which the mechanistic worldview of the nineteenth century is being displaced by one
based on organic processes (Griffin 1998). Process philosophy is an enduring strand in Western thought that stretches from pre-Socratic philosophers, through the neo-Platonists to contemporary figures such as James, Bergson, Whitehead, and Bohm. Although they express it in different ways, these philosophers share the view that mind is a part of, not apart from, what Whitehead called “the creative advance of nature.” It is significant here that process philosophy is again attracting attention since paradigm shifts in science actually start with a revision of implicit metaphysics (e.g. Rescher 1996, 2000; Gare 1999: 128).

The changes in psychology sketched earlier reflect just such a revision. They lessen hindrances that linger on in psychology as implicit nineteenth century attitudes. With the decline of Cognitivism and the vigorous return of interest in consciousness there has come an increased contact with phenomenological traditions (Varela and Shear 1999). The interaction between psychology and Buddhism has moved into a more productive phase. For example, treatments of selfhood and its relation to the wider order of nature are now appearing that, to a greater or lesser extent, are influenced by Buddhism (e.g. Parfitt 1987; Clark 1991; Macy 1991). The resemblance to anattà, is again striking. Instead of a Cartesian substance, selfhood is seen as dynamic, interconnected, primordially relational and essentially without essence (Pickering 1997).

In fact, this is not a good time for essentialism in general. A worldview without essences is replacing the mechanistic metaphysics of the nineteenth century. In theories of evolution, development, and cognition the systems view is displacing attempts to explain the dynamics of complex wholes by attributing causal powers to their parts (Oyama 2001). In psychology too, interaction with Buddhism has recovered from the superficiality of the 1960s and now demonstrates maturity and critical depth (e.g. Ramakrishna Rao 2002). Cycles of contingency are the underlying field of being from which organic action, human cognition, and culture emerge. Treatments of causality are moving from the linear to the circular (Rosch 1994). These conceptual developments, together with the methodological broadening of postmodern psychology, all enrich contact between science and Buddhism and point towards an era of closer interaction (Waldron 2000).

**Buddhism and psychological science**

Questions arise here that go beyond merely the methodology of investigating the mind to the purpose in doing any investigation at all. Buddhism values personal, direct investigation from the first-person perspective. It is readily available and, with appropriate training can become more accurate and systematic. It is also considered to be intrinsically valuable since it enables the investigator to live more skillfully. Psychology, by contrast, following the ethos of nineteenth-century science, puts greater value on third-person depersonalized investigation which is assumed to be value-neutral. How skillfully psychologists themselves live is neither here nor there, although, in the spirit of the Enlightenment Project, it is assumed that psychological investigation will help to improve the conditions of life.
Now the postmodern turn takes us beyond the unlikely proposition that the concepts and practices of science are value-neutral. Value-laden aims are implicit in the nineteenth-century inheritance that still shape contemporary psychological science. It is assumed that mechanistic reduction is possible, that it will allow greater prediction and control of mental life and that this is desirable.

But value-neutral knowledge is a fiction. Knowledge becomes value laden by virtue of the manner of getting it and the purposes to which it is put. This is particularly important for psychologists to take on board since theirs is the science that is taken to most directly mirror the human condition. If psychology denies the first-person perspective any significance, adopts mechanistic metaphysics and aims for prediction and control, then the outlook for human autonomy is poor. The actual experience of human beings has no place in such a science. It is as if we look into the mirror only to find we are not reflected in it.

If instead psychology’s metaphysical framework was the ceaseless arising of conditions without essence, then it would more directly reflect the world of lived experience, as Husserl, Bergson, and James proposed it should. That world, after all, is the world in which the psychologists themselves live, and to acknowledge this would help create a more humane and less alienating discipline. However, it is very important in Western academic realpolitik for psychologists to appear “scientific.” Accordingly, experience itself is downgraded as something secondary, something to be explained away. In their struggle to be accepted as scientists, psychologists needed to show that they too could do the reductive job on consciousness, their central phenomenon that other scientists appeared to have done on theirs. Physicists suggested that heat was “just” motion. Biochemists suggested that life was “just” metabolism. Geneticists suggested that evolution was “just” to alter the genome – and so on. Given this, it is no surprise to find psychologists suggesting that experience is “just” computational mechanisms in the brain. To do so gives them the authority of science.

This search for the status of a natural science explains why psychology presently has little more to offer than an attempt to reduce the complexities of experience to something else, something which is simpler and more “real.” It also explains the massive preference for objective over subjective methods. This conceptual poverty and methodological imbalance are signs of the reductive impasse at which psychology has been stalled until recently. In attempting to do for mental phenomena what natural science appears to have done for physical and biological ones, psychologists had set themselves an impossible task. The formidable technology used in psychological research does not of itself give the discipline the authority to pronounce on experience. It may produce finer and finer descriptions of, say, brain activity, but what will be revealed by doing this? It will be only part of the story; a description of the vehicle for consciousness.

What this vehicle carries, the flow of conscious experience itself, cannot be reduced. It participates in a system with innumerable interacting parts both within and without the boundaries of the body. This means that consciousness cannot be fully understood from third-person descriptions of particular parts of the system,
no matter how accurate they may be. Events within the brain are but one such part, and as yet it is unclear what their role is in shaping the situated actions of people and other organisms within the larger systems that they inhabit.

But things are improving. The developments in psychology that have been sketched here, especially embodied treatments of cognition and the increasing influence of dynamic systems theory, shift attention strongly towards the whole and away from the parts. Methodologically, things are also changing for the better. Phenomenology, qualitative methods, and first-person data are becoming more acceptable in mainstream psychology (Varela et al. 1991). It is becoming clear that while third-person data are reliable and powerful, it is a reductive mistake to assume that on their own they could provide a complete account of experience. To understand how human experience is bound up in the systems that support it will also require first-person investigation, changing science’s methods and its image. This is the peculiar challenge in investigating consciousness: to preserve the integrity of scientific methods whilst at the same time broadening them to treat the world of lived experience.

Buddhism starts with that world and deals with it in ways that everyone can recognize. While scientific psychology makes a distinctive contribution, it is nevertheless a highly specialized one, tied to a particular era and cultural milieu. Cognitivism does not directly help people to understand their own experience, nor is it intended that it should. By contrast, the resilience and endurance of Buddhism testifies that many people from many cultures and at many periods of history have recognized in it something universal about their own lived experience.

Now the findings of science are also supposed to be universal, but this universality is most easily demonstrable in physics. In the life sciences it is less so and in mainstream experimental psychology, it is even more questionable. Science expresses the outward-directedness of Western thought over the last millennium. This dominates the study of the mind, despite the fact that the principal thing we know about it is our inner experience. It has meant that third-person descriptions of the outer manifestations of mental life are far more highly valued than first-person accounts. What mental life feels like from the inside has been treated with suspicion in Western psychology because previous attempts to use this as primary data have failed. This suspicion extends to meditative traditions where there appears to be no equivalent of the controlled experiments and publicly verifiable data that are the hallmark of good scientific research (e.g. Bucknell 1997). Even serious research on meditation can still lapse into something akin to orientalism by treating meditation as an anthropological curiosity – an esoteric practice of another culture, often by implication, a more primitive one.

Those more familiar with Buddhist traditions will recognize that this is not a well-informed position. The use of meditation can be as systematic and critical as any scientific program. Charles Tart, whose work was recognized by the American Psychological Society’s Distinguished Scientific Contribution Award in 2001, also has experience with meditation. In a personal communication he put
his view thus:

My professional and personal studies on consciousness, especially mindfulness meditation (vipassana) have convinced me that ordinary consciousness is quite undifferentiated and unskillful at observing its own manifestations – hence the failures of early Western attempts at an introspective psychology that was to be a science of the mind per se. But we can learn to become much more discriminative observers of our own mental processes. Western psychology gave up far too early trying to become a science with mental events as primary data – we simply weren’t trained.

(Tart 1999)

Thanks to the broadening of psychology’s methodological resources, mistrust of meditation is diminishing. The mistrust was due in part to projective distortion during the 1960s when so much of what went on was superficial and Eastern traditions were commercialized into faux spiritual fashion-accessories. Things have improved greatly in the past few decades. Following the work of Carl Gustav Jung, we are now more aware of how Eastern traditions can be distorted by the way they are presented in the West (e.g. Clarke 1995). Moreover, better teachings and more balanced research is now available (e.g. Wallace 1999). Many psychologists, like Tart, now have some experience of the direct engagement with mental life that meditation provides (e.g. Rosch 1997).

However, despite the changes sketched here, there are clear and important differences between scientific psychology and Buddhism. There will remain a necessary tension between meditation and conventional scientific methods. Private experience obtained under special conditions and after special training does not rest easily alongside the public data of experimental science.

Many psychologists, though, are beginning to recognize that the way forward is not too exclude any method of studying mental life but continually to enrich their synthesis. This in turn will not only enrich psychological research but also raise broader questions about its purpose. What sort of knowledge of the mind do we want and why do we want it?

Experimental psychologists want the sort of knowledge that is produced by good scientific research. They want it because scientific knowledge of mental life is intrinsically interesting, an end in itself. However, scientific knowledge, of the mind or anything else, is not value-neutral. The fate that has always awaited knowledge gained because it was an end in itself is to end up as technological means.

Presently we face a serious ecological crisis, whose most basic cause is the alienation of human experience from nature by runaway science and technology. The ecological crisis is thus also a psychological crisis. Accordingly, rather than technologizing the mind, as both Behaviorism and Cognitivism were wont to do, psychology needs to study it within its biological and cultural contexts.
It will help this project to engage with Buddhist views of selfhood and its organic interdependence on the world around it (Macy 1991; Hillman 1995). A synthesis of traditions will help create a more balanced science of mental life and one more relevant to the difficulties facing us.

It will present its own difficulties of course. It is easy to misattribute to Buddhism things which are merely contemporary concerns. The genuine openness of science and its capacity for radical revision should not be underestimated when compared with what in Buddhist traditions is rigid and authoritarian. But so long as they are recognized, these difficulties need not hinder the pursuit of better interaction between Buddhism and psychology. The decline of the mechanistic metaphysics of the nineteenth century and the growth of an organic worldview in the twenty-first open the way to deeper, more informed and relevant interaction between the two traditions.

**Epilogue: has what Nietzsche sought been found?**

(The page numbers that follow refer to Walter Kauffman’s translation of *The Gay Science*, see Nietzsche (1887))

In *The Gay Science*, Nietzsche’s (1887) last aphoristic work, he sketched a discipline that would allow human beings to become all that they might be. This was not aimed at improving science and philosophy, even though their limitations were irksome to him. He commended the scientists of his day and their distaste for philosophy, since he too rejected it as unadventurous and normative. However, he did not ally himself with natural science, *Naturwissenschaft*, in which he found the mere utilitarian investigation of the world as it is. His was to be *Geisteswissenschaft*, a humanitarian practice, though one only for the few who could endure its rigor. These few would then become able to experience the world as it might be when human consciousness attained the higher condition he hoped to encourage.

This was to be a discipline indeed, an arduous, testing calling that would go beyond the regulative projects of the humanities into new realms of human potential. This project, although it has often been dismissed as sinister elitism, has similarities to Buddhism which likewise encourages human beings to transform themselves through effortful investigation of their own experience.

Despite this rejection, the resemblance is nonetheless genuine enough and practitioners of both Buddhism and *The Gay Science*, unlike those who never subject their own experience to rigorous examination, are those who “want to look our experiences as straight in the eye as if they represented a scientific experiment, hour after hour, day after day” (319). This exhortation to be constantly mindful of mental conditions as they arise is known, and advocated, in the Pali Buddhist tradition as sati.

*The Gay Science* is not gay because it promotes happiness or comfort. Its practitioners have to understand that it will, necessarily, require endurance: “Every philosophy, every art may be regarded as a healing and helping appliance in the
 service of growing and struggling life: that always presupposes suffering and sufferers…” (370).

The first noble truth in Buddhism is that suffering, *dukkha*, is an intrinsic part of experience. While it cannot be eliminated, it can be understood. This is part of what liberation means. Again, as in Buddhism, liberation also means to break out from the cycles of endless conditions within which we are trapped. What *karma* and *samsāra* are to Buddhism, the “eternal return” is to Nietzsche.

This strange surmise, that events must endlessly recur, appears in *The Gay Science* as a demon’s curse: “…this life as you live it now and have lived it, you will have to live again and again, times without number…” (341).

But *The Gay Science* is gay just because it holds out the prospect that the curse can be lifted. That is its liberating purpose and its exhilarating reward. Its practitioners feel:

as if a new dawn was shining on us when we receive the tidings that “the old God is dead; our heart overflows with gratitude, amazement, anticipation, expectation. At last the horizon appears free again to us, even granted that it is not bright.”

(343)

Of course, these resemblances do not mean that *The Gay Science* or anything else in Nietzsche, was advocacy of a faith-like, religious approach to understanding the human condition. It was not Nietzsche’s intention to ally himself with any religious tradition, let alone Buddhism, which he dismissed as a palliative for the nihilistic depression that follows the realization that the world does not have the meaning that religions say it has (Morrison 1997: 27). The Buddha too is dead:

After the Buddha was dead, his shadow was for centuries pointed out in a cave – an immense, frightful shadow. God is dead: but, men being what they are, perhaps there will for millennia still be caves in which his shadow is pointed out. – And we – we still have to conquer his shadow too!

(108)

But conquering the shadow of the Buddha is not a rejection of Buddhism. It is a warning not to substitute authority for experience. Nietzsche warns that teachings are means, not ends. Only individuals can transform themselves and teachings must be transcended in order to be realized. But this too, is to be found in the many similes in Buddhism which tell us that teachings are to be used and then discarded, like the raft that has to be abandoned once the shore has been reached.

Psychology as it is taught in contemporary universities, whether they are in Washington, Paris, or Tokyo, is not what Nietzsche sought. It is normative, while *The Gay Science* is transformative. However, this could change. The developments that have been sketched here, particularly the rehabilitation of the first person
perspective, while they do not of themselves create a transformative discipline, are perhaps a step in the right direction.

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THE SPIRITUAL SIGNIFICANCE OF EMPTINESS IN NĀGĀRJUNA’S
MŪLAMADHYAMAKAKĀRIKĀ¹

William L. Ames

“I will enter nirvāṇa with no appropriation; nirvāṇa will be mine.”
Those who grasp in that way have a great grasping of an appropriation.²

(MMK 16.9)

The goal of Buddhist practice is generally thought to be the attainment of nirvāṇa. The author of this verse seems to be saying that this goal, or at least the desire to attain it, is self-contradictory. This is all the more surprising when we learn that the verse is from the Mūlamadhyamakakārikā, The Root Verses on the Middle Way, written by Nāgārjuna, the great Mahāyāna Buddhist philosopher. What understanding of Buddhism could have led Nāgārjuna to make such statements? To answer this question, we will examine Nāgārjuna’s Mūlamadhyamakakārikā (MMK) with particular emphasis on the implications that his ideas have for the Buddhist spiritual path. This chapter will thus be a study of one aspect of Nāgārjuna’s thought as expressed in his major work, the MMK.

Nāgārjuna (active c.150–200 CE)³ was the founder of the Madhyamaka⁴ school of Buddhist thought, which is one of the two major philosophical schools of Mahāyāna Buddhism, along with the Yogācāra school. The Madhyamaka is best known for its doctrine of emptiness (śūnyatā). The idea of emptiness is found in the “perfection of discernment” (prajñā-pāramitā) sutras, some of which are among the earliest Mahāyāna sutras. While the sutras expound emptiness in a discursive way, the Mādhyamikas use systematic argument.

Emptiness, for the Madhyamaka school, means that dharmas are empty of intrinsic nature (svabhāva) (in this context, “dharma” means “phenomenon”).⁵ All Buddhists hold that conditioned dharmas arise in dependence on causes and conditions. For the Mādhyamikas, this fact of dependent origination (pratītyasamutpāda) implies that dharmas can have no intrinsic, self-sufficient nature of their own. Since dharmas appear when the proper conditions occur and