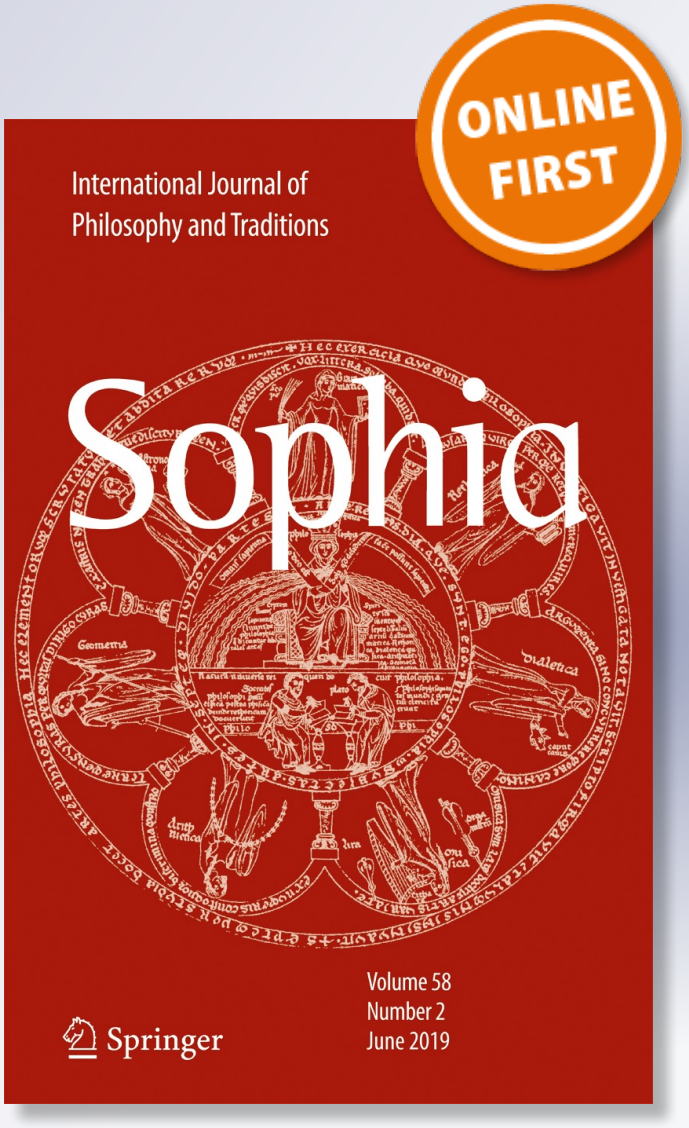
Could the Buddha Have Been a Naturalist?

Chien-Te Lin

Sophia
International Journal of Philosophy and Traditions

ISSN 0038-1527

SOPHIA
DOI 10.1007/s11841-019-00734-y



Springer

Sophia
https://doi.org/10.1007/s11841-019-00734-y

Could the Buddha Have Been a Naturalist?

Chien-Te Lin[1]

Published online: 01 August 2019

Abstract
With the naturalist worldview having become widely accepted, the trend of naturalistic Buddhism has likewise become popular in both academic and religious circles. In this article, I preliminarily reflect on this naturalized approach to Buddhism in two main sections. In section 1, I point out that the Buddha rejects theistic beliefs that claim absolute power over our destiny, opting instead to encourage us to inquire intellectually and behave morally. The distinguishing characteristics of naturalism such as a humanistic approach, rational enquiry, empirical observation, as well as a pragmatic and realistic outlook can all be seen in the Buddha's teachings. In section 2, however, I advance arguments to show that while the Buddha is opposed to theistic doctrines, his views are not entirely in accordance with the presuppositions of naturalism. Firstly, the Buddha's foremost concern is not purely intellectual in nature—the purpose of his teachings is to realize a soteriological goal through spiritual practice. Secondly, naturalism tends to subscribe to 'self-being,' while the Buddha holds all things to exist conditionally and impermanently. Because of the dependent nature of all things, it is not possible to discover their essence through reduction. Thirdly, naturalized philosophy would be a kind of belief-habit that follows from certain preconditioned assumptions. But the Buddha encourages us to re-examine our conceptual proliferation leading to biased views, as that ultimately leads to suffering. I conclude by proposing a broader naturalist outlook that would allow for a more inclusive conception of the natural world that would take the axiological dimension of human transcendence into account and increase an overall understanding of human potentiality.

Keywords Naturalism · Buddhism naturalized · Transcendence · Axiology · Soteriology · Dependent arising · Emptiness

✉ Chien-Te Lin
bhadanta@gmail.com; d92124002@ntu.edu.tw

[1] Institute of Religion and Humanity, Buddhist Tzu-Chi University, No. 67 Jie Ren Street, Hualien, Taiwan

Introduction

Naturalism is the idea that reality can be exhausted by nature. This philosophy developed from discussions around the second half of the twentieth century, gradually gaining ground on the basis of the argument that even philosophical questions can be solved without resorting to methods involving a priori theorizing. The presuppositions of naturalism have come to define much of the terms of contemporary academic debate on topics such as epistemology, metaphysics, and even axiology. As W. V. Quine (1960, 3) put it: 'the philosopher and the scientist are in the same boat,' pointing out the continuity between philosophy and science. Today, the overwhelming majority of philosophers in the English-speaking world are naturalists (Ritchie 2008, 1); topics such as naturalized philosophy, naturalized ethics, naturalized aesthetic, and naturalized religion are explored with great interest.[1] The naturalists hold that the empirical sciences are fully capable of providing answers to questions related to 'non-material' aspects of reality such as mind, consciousness, spirit, morality, and beauty. The popularity of naturalism has also recently come to challenge Eastern systems of thought, with some scholars suggesting that despite the merits of the Buddhist tradition, it comes with an unfortunate mix of supernatural elements. This has led to a naturalized approach to Buddhism (Flanagan 2011).

Naturalist theories come in various forms (Flanagan 2008), yet a theme common to the broader naturalist project is the rejection of any 'supernatural' causes or beings that could have a bearing on the natural world. Some proponents of naturalism who commit to this world-view as their accepted creed have argued that physicalism or materialism are indeed the best contemporary versions of naturalism (Craig and Moreland 2000, xi). Hilary Putnam even suggested that naturalism, and its variants in current usage, is identical to materialism (Putnam 2004, 130–131). Owen Flanagan similarly considers the natural to be essentially the same as the physical or material,[2] while noting that naturalism in all its forms expresses solidarity with David Hume through the motto: 'Just say no to the supernatural' (Flanagan 2011, 2). Like materialism and physicalism, scientific naturalism holds that since nothing is over and above physical existence, science is the only legitimate means of inquiry into the natural world. In this article, I refer mainly to this particular version of naturalism,[3] which may be said to have three major characteristics: (1) the refusal of anything supernatural; (2) everything is physical or supervenes on a physical level (no non-physical being); (3) scientific theory is the

[1] Publications employing scientific methods to study humanistic disciplines regularly use the term 'neuro' to signify this naturalistic approach, with the implication often being that neuroscience is capable of fully explaining the various intricate aspects of life. Common examples include topics such as neuroethics and neuroaesthetics.

[2] For this reason, he uses the term 'material' world in the same sense as 'natural' or 'physical' world in *The Really Hard Problem: Meaning in a Material World* (Flanagan 2007).

[3] There would be two different themes or doctrines of scientific naturalism, one is ontological, the other is methodological. The ontological theme of scientific naturalism regards the world as consisting of nothing but the entities to which scientific explanation commit us. And the methodological theme of scientific naturalism considers that scientific inquiry is our only genuine source of knowledge or understanding. All other forms of knowledge are either illegitimate or are reducible in principle to scientific knowledge (or/and justifiable by scientific methods.) Though the two themes may come apart, most scientific naturalists are inclined to commit to both the ontological and methodological themes. See De Caro and Macarthur (2004, 2010) for more about scientific naturalism, particularly the 'introduction' sections.

only reliable source of knowledge to explain the physical world.[4] The terms scientific naturalism, physicalism, and materialism shall therefore be used interchangeably in this article. The diversity within Buddhism through history is much more complicated than that of naturalism; some Buddhist traditions even strongly oppose each other. In what follows, I mainly take the ideas of the early Buddhist schools, i.e., Nikāya Buddhism, as a theoretical reference for positing the historical Buddha's likely response to 'Buddhism naturalized.'

Why the Buddha Could Be Considered a Naturalist

Buddhism is undeniably a religion, but it is a religion without faith in God or a religion keeping a distance from theistic beliefs.[5] Faith in the prescriptions of a supernatural authority is a common feature of most religions, yet one of the most salient features of the Buddha's teachings is a rejection of the type of authoritative higher power that often characterizes theistic traditions. The Buddha renounced the rigid moral codes of Brahmanism, opting instead to encourage moral activity imbued with a sense of self-reflection and intellectual inquiry. As Gombrich puts it, the Buddha identified karma as the principal determining cause for human suffering; however, liberation from suffering depends on our mind (Gombrich 2009). In fact, the Buddha even went so far as to say that 'intention is karma.' In Buddhism, we thus find that karma is ethicized and universalized without presupposition of a supernatural agency. Insofar as the Buddha's teaching is humanistic, rational, empirical, pragmatic and realistic, we could say that it is aligned with the naturalistic standpoint.[6]

Spirit of Humanism

Although slight variations in the biography of the Buddha can be found in different textual sources, what is certain is that the Buddha was an actual historical figure. What is perhaps most striking about his life is that the Buddha never claimed to possess any special attributes other than human intellect. He emphasized that any person, irrespective of gender, class or race is capable of putting an end to suffering and reaching perfect 'human-ness' through sincere effort. A human being and only a human being has within himself/herself the potentiality of becoming a Buddha—a human being par excellence but not a 'super-human' (Rahula 1974, 1).

Though rather divergent in its approach, naturalism is often seen to contain certain elements of secular humanism. Secular humanism is by definition a modern, nontheistic, rationalist movement that sees man as being capable of self-fulfillment, ethical

[4] This paper, especially in section 3, responds to this kind of naturalism with three points. Firstly, the seeming 'supernatural' in Buddhism is mainly the concern of axiological and soteriological objectives. Secondly, the presumption of physical substance as the only element or component of the universe may violate the Buddhist theory of Emptiness. Thirdly, from the Buddhist point of view, science is one way to understand the world, but not the only way, it is still a kind of epistemic habit or cultural ideology that deserves to be re-examined.

[5] It has recently been suggested that Buddhism is more of a spiritual system that emphasizes awakening over belief (Batchelor 1998; Harris 2014).

[6] Apart from the features of humanism, rationalism, empiricism, and pragmatism, the Buddhism also emphasizes the values of independence, freedom, openness, diversity, tolerance and so on. See Lin (2016) for more information.

conduct, etc., without recourse to supernaturalism (Neufeldt and Guralnkik 1988, 657). By suggesting that men are their own masters, and moreover disproving the existence of any higher power that sits in judgment over human destiny, the Buddha exhibits this very same humanistic spirit.[7] He also emphasized common human needs and sought rational, rather than divine ways of solving human problems. What his dharma expounded are natural laws and values for life (Payutto 1995).

By choosing not to construct soteriological ambitions on the back of a theistic foundation, and through a denial of the command of any supernaturalist agency, the Buddha directs our attention to the nature of the human condition and posits the path towards self-realization as the ultimate solution to our problems. The humanistic spirit in Buddhism could therefore be said to satisfy the basic threshold of naturalism in that it asserts the capacity for human beings to understand the world through intellect without resorting to mystical justification. In fact, it is the Buddha's deep and abiding humanity that has been instrumental in the continued relevance and appreciation of Buddhism over the centuries, or indeed, the millennia (Sen 2014).

Appeal to Rationality

The Buddha's teaching shares two common themes with the Brahmanism of ancient India, namely the quest to put an end to the accumulation of negative karma and the aim to become liberated from suffering. The Buddha's method for attaining liberation is however very different to that of Brahmanism. The Buddha believed that our destiny is determined by our intentional action, rather than the objects we choose to worship; and for this reason, one should make resolute efforts to develop wisdom as an antidote to ignorance. Aiming to dispel the illusion of a supernatural agency, the Buddha further speaks out against the caste system and denounces the belief that Brahman is the only way to transcendence. Ignorance (*avijjā*) and craving (*taṇhā*) are the main factors giving rise to cyclic existence (*saṃsāra)*, hence what is needed most to attain liberation is detachment and correct understanding (SA T2, 83–84).

In the *Kālāma sutra*, we see further evidence of the Buddha's insistence on self-reliance and his approval of intellectual enquiry. In this text, the Buddha advises against the perils of blindly placing faith in religious authorities. Before accepting the lead of others, one ought to apply one's mind and question the merits of both religious texts and teachers. To further highlight the importance of ascertaining for oneself the worthiness of a teacher, the Buddha even asked his followers to closely examine him as a guru and encouraged all those wishing to convert to Buddhism to be thorough in their investigations before deciding to enter the Buddhist path.[8]

In many religious traditions, doubt is understood to be a great obstacle to progress—at times being regarded as profane or even being prohibited altogether. The Buddha sees ignorance and wrong views (*micchā-diṭṭhi*) as the root of all evil. Thus, in order to eliminate ignorance and ensure wrong views are not adopted, he believes it is crucial to maintain a reasonable measure of doubt (*vicikkcchā)*. No teacher should be followed,

[7] Humanism is centered around human values and interests, but that does not mean it neglects the welfare of other beings or necessitates human domination over any other species. Humanism, and especially Buddhist humanism, is therefore neither a form of anthropocentrism nor a form of human chauvinism.

[8] The story of Upāli's conversion is a case in point (Nanamoli & Bodhi 1995, 475–492).

and no teaching adopted simply out of reverence.[9] It is clear then, that from a Buddhist point of view, the power to achieve liberation from suffering lies with the individual, mainly because of his or her capacity for diligence and insight.

Emphasizing the Empirical

A well-known verse from the Bible states that 'you shall know the truth, and the truth shall set you free.' (John 8:32). In Buddhism, too, an understanding of the truth is indispensable to achieving liberation. However, the epistemic criteria for 'Knowing the truth' in the context of early Buddhism is quite different than those for seeking salvation in the context of the Johannine gospel. Buddhist theory holds that the truth is not revealed through some mystical process, it is obtained via empirical observation; realizing the truth is dependent on mind-body awareness. Seeing as the departure point of the Buddhist view on truth—as demonstrated by the Four Noble Truths—is in fact suffering and the quest to bring about the cessation of suffering, the focus given to experience makes good sense. Suffering is a genuine mind-body experience: it is neither a disembodied idea nor an abstraction merely pertaining to others. The Buddha therefore bases his fundamental teachings on the empirical process of observing phenomena and makes a compelling case for returning our attention to concrete experience.[10]

The Buddhist path to liberation moreover does not involve a hypothesis of speculative entities that exist internally (e.g., 'soul') or externally (e.g., 'God') to the experience of an individual. Instead, a human being is said to be comprised of five aggregates (Skt. *pañca skandhas*); a physical aggregate that is the body and four mental aggregates namely: feelings, apperception, volitions, and consciousness. These five aggregates or 'bundles' are the operating factors of experience. Since both physical and mental 'bundles' form aggregates of experience, the pursuit of cessation of suffering has to take place completely on the plane of experience.[11] Further, the twelve sense bases (Skt. *āyatana*) are said to comprise our sense of the world; that is, our entire field of cognition arises from the six categories of cognitive faculties (Skt. *ṣaḍ indriyāṇi*) and the six corresponding categories of objects (Skt. *ṣaḍ viṣayāḥ*). For this reason, the meditative practices taught by the Buddha are intricately linked to the sense bases (SA T02, 91). The sense bases are what supply the content with which we formulate our

[9] The 14th Dalai Lama (2009, 9–11) similarly encourages faith that is founded on reason and accompanied by wisdom, explaining that faith in the Buddhist teachings should come on the basis of genuine understanding. Healthy skepticism is therefore a means to empower the individual, so that he or she can be confident in their faith and pursue understanding based on rationality and open-mindedness.

[10] Richard Gombrich notes that the Buddha undeniably places his emphasis on experience: the experience he had had himself and the experience he wants others to have. The Buddha often appeals to reason, in the sense that he uses rational argument; yet the appeal to experience is even more important (Gombrich 2006, 28). Also as Hamilton correctly says, 'What really matters is understanding one's experience: it is this, no more and no less, that brings liberating insight.' (Hamilton 2000, 107) The Buddha's emphasis on experience is also evident from Stephen Batchelor's reflections (Batchelor 2015, 178–205).

[11] The Buddhist empiricist approach should however not be confused with the sensation-oriented empiricism of seventeenth and eighteenth-century British philosophers such as John Locke and David Hume (Holder 2013, 224–225). A richer type of radical empiricism proposed by William James could perhaps be said to more closely resemble the Buddhist method (Wallace 2012, 125–143). For more on the significances of human experience in the teachings of early Buddhism, please refer to Hamilton's book *Identity and Experience*.

knowledge and understanding of the world, hence any investigation into the nature of reality should favor experience over speculative postulates. Any Buddhist inquiry into reality similarly requires that empirical evidence should at least in principle, triumph over scriptural authority.[12] Questions surrounding the human condition therefore cannot be solved through dogmatic beliefs or passive acceptance of a revealed truth.

On Being Pragmatic and Realistic

As pointed out earlier, the Buddha believes that it is possible to realize the true nature of psycho-physiological phenomena by way of observing the workings of the five aggregates. For this reason, a key focus of Buddhist meditational practice is to become more aware of our experiences from one moment to the next. When faced with questions such as whether or not the world is eternal or whether or not the world is finite, the Buddha declines to comment. He also did not respond to questions on matters deemed to be karmically neutral or karmically indeterminate. Instead, he advises against senseless talk (*avyākata*) and gives the example of a person hit by a poisoned arrow, who then instead of putting all his efforts into healing the wound, proceeds to foolishly pursue questions about the origin, producer, size, shape, and material of the arrow. On another occasion of wandering through a forest with his followers, the Buddha also admitted that just as the leaves in his hand compared with the leaves in that forest, those things that he has known with direct knowledge but has not taught are far more numerous than what he has taught. He chose to impart only teaching that would contribute to meaningfulness, truth, and the saintly life leading to self-awakening and unbinding (SA T02, 108). It is thus evident that there is a decidedly pragmatic aspect to the Buddha's teaching—any pursuit lacking the potential to benefit our understanding of the *dharma*, any action that does not bring us closer to reaching *nirvāṇa*, and any activity that would block progress on the path to attaining enlightenment is strongly discouraged.

The emphasis on the truths of suffering and its cessation reveals not only a pragmatic concern, but also a very realistic consideration. Because the ways for solving the predicament of suffering, particularly mental suffering such as greed, aversion, and ignorance, are mainly characterized by self-effort, our karma is not explained within the context of sacrificial or ritualistic demands. It makes sense then that the methods for eliminating suffering involve ethical edification and virtuous behavior rather than mere subordination to the demands of a value system that is enforced by a supernatural authority.[13] The truth of overcoming suffering is thus a 'noble' truth rather than a 'holy'

[12] The Dalai Lama also suggests that knowledge obtained through reason or inference must be derived from observed facts gained through experience ('foreword' in Impey 2014, vii-viii). He considers Buddhism and modern science to both share a deep suspicion of any notion of absolutes on the philosophical level, both preferring to account for the evolution and emergence of life and the universe in terms of interdependence and the principle of causality. In methodological terms, both traditions take an empirical stance. For example, among the three recognized sources of knowledge accepted in Buddhism—experience, reason, and testimony—the evidence of experience takes precedence, with reason coming second and testimony last. Jayatilleke also points out that the Buddha identifies himself as an experientialist more than a traditionalist and that authority from tradition and testimony is not as important as our own experience (Jayatilleke 1980, 244–247).

[13] Gombrich (2009) reiterates this point many times, suggesting that this purely ethical concept of karma is an innovative contribution to Indian culture.

truth. No threats of eternal damnation are made against those who choose to follow other paths—we are damned only by our ignorance, not by our sins or disbelief. The realistic spirit of the Buddha is hence evident from this leaning towards wisdom instead of faith.

Why the Buddha Would Not Be a Naturalist (or More Than Just a Naturalist)

While the Buddha's teaching does not accord with theistic doctrines, it is also not fully consistent with scientific enquiry. The Buddha advises against blind faith, dogmatism, fanaticism, and bias; however, this does not mean that the Buddhist mission is purely an intellectual one devoid of sublime objectives. To be more precise, the Buddha encourages the pursuit of transcendent goals over mere acquisition of mundane knowledge. Contemporary naturalists by contrast, are by and large empirically informed and take a positivist approach to the world without much transpersonal concern. In what follows, I discuss the unique aspects of Buddhism: axiological and soteriological objectives, emptiness and anti-essentialism, and acknowledgement of the need to re-examine our cognitive conditionings.

Axiological and Soteriological Objectives

Natural science certainly does not provide the only solution to the human condition, and few would agree that science has the capacity to solve all our problems. Even if one were to contend that science suggests the most plausible answer to most questions, Karl Popper's principle of falsifiability shows that it would only be the best possible answer *for the time being*. One aspect of our existence where scientific methods noticeably fall short is with respect to questions of axiological import. It is hard, if not impossible to scientifically define or measure phenomena such as virtue, morality, beauty, freedom, and so forth. Although scientists have attempted to bridge the axiological gap with subjects such as neuro-ethics or naturalized ethics, their practical application remains limited. Just as the aesthetic appeal of an oil painting cannot be quantified by precise measurement of color pigments, axiological and soteriological questions cannot be adequately addressed with scientific theories alone.

Scientific Naturalism Falls Short of 'Transcendence'

To steer clear of the pitfalls of superstition, the Buddha is very cautious about various forms of supernaturalism. That said, he does view the challenges faced by human beings to be more than just mechanical, biological, or psychological in nature. It cannot be denied that the human condition has a physical aspect, yet the Buddha chooses to take a decidedly transcendental approach to the enigma of human existence. The word 'transcendence' may have different interpretations in modern-day philosophical debate, yet the Buddhist sense of the word carries a certain therapeutic significance in that it is the product of a process of purification. Bodhisattvas who engage in compassionate deeds and cultivate wisdom are *in* the world and *for* the world, yet not *of* it—they transcend worldly concerns, yet do not discard all that is worldly. The focal point of

Buddhist practice is therefore not limited to worldly value and understanding. Even in cases where the Buddha appears to pursue epistemic certainty, it is more for the sake of therapeutic function.[14]

Having established firstly that suffering is the main flaw of cyclic existence; and secondly, that it is experienced via the mind and body; the path to eliminate suffering would need to involve some sort of redirection of our attention towards the activities of the mind and body—especially in terms of our awareness of the ways in which we interact with the world through the medium that is mind and body. If this interaction is based on ignorance, it will lead to the formation of negative karma. And the way to liberate ourselves and extinguish suffering is through purification of our karma. Suffering and its cessation are therefore not merely matters of psycho-physical concern; they also carry deep soteriological significance.[15] One could even contend that matters that appear to fall purely within the ambit of psychology often have even more far reaching soteriological implications; implications which cannot be fully dealt with by science. Axiological questions such as what a meaningful life is and how to go about creating a meaningful life are equally hard, if not impossible, to weigh in scientific terms. We could even say that science tells us nothing about how we should lead our lives or what we should value more generally (Ritchie 2008, 200). A distinguishing feature of Buddhism is therefore that it offers insight into questions that fall outside the scope of what scientific naturalism can measure or explain.

Science furthermore has a profound fascination with the discovery of truth. This stands in obvious contrast to the Buddha's main objective of truth-discovery as increasing happiness and ending suffering. As Owen Flanagan notes, many scientists claim to be in search of a particular truth, irrespective of the outcome. He even speculates that if one were to poll ordinary Americans and Europeans about the impelling nature of scientific inquiry, they would concur that science comprises the search for truth, power over nature, and profit (Flanagan 2011, 64 & 220). And while the question of value is visibly absent from science, disciplines such as physics and biology are deemed to provide an inadequate means for dealing with the challenges of the human predicament.

Consciousness, for example, is considered to be a biological problem, with consciousness being to the brain what digestion is to the stomach (Searle 1997, xiii). The question is however, whether the phenomenon of suffering can be sufficiently addressed in a mechanical way? As G. E. Moore suggests, we risk committing a 'naturalistic fallacy' by attempting to ascribe natural properties to phenomena that may not be analyzed by science. There has been a lot of debate over the Buddhist concept of rebirth, for example. Yet, apart from making efforts to prove or disprove rebirth as a fact, it would make sense to pursue questions regarding the moral and

[14] This is similar to the idea of 'quietism' as explained by Wittgenstein, wherein the main purpose of philosophy is taken to be its therapeutic or remedial outcomes. Philosophical problems are thus viewed as pseudo-problems and the value of philosophy is not its ability to deliver any positive thesis, but rather its ability to help clear up confusion on a linguistic and conceptual level.

[15] Paul Williams also noted that Buddhism is a soteriological system concerned with bringing about liberation, and freedom from experiences held to be negative, unpleasant, and not wanted. The primary orientation of Buddhism is thus towards the transformative experience of the individual. One is bound by one's own mind, and it is by working on one's own mind that one becomes liberated, attaining the highest possible spiritual goal (Williams 2000, 2–3).

ethical implications of human actions that derive from an acceptance of rebirth as part of one's world view (Burley 2016, 18). This implies that we could understand 'super-naturalness' within the context of moral and spiritual edification.

'Super-Naturalness' Within the Context of Moral and Spiritual Edification

Phenomena which are not immediately apparent to the senses of an ordinary observer are sometimes said to be 'supernatural.' Taking rebirth and the six realms of existence as examples, one would have to concede that it is one thing to seek proof of the six realms of existence as a scientifically verifiable fact, while it is something quite different to verify the existence of the six realms by way of personal experience.[16] The very purpose of meditational practices is to develop penetrating wisdom, and so it is for example possible to develop psychic cognitive abilities through the practice of meditative stabilization (*samādhi*). Since verifying certain aspects of extraordinary phenomena through subjective meditative, experience is a very different endeavor, maintaining an attitude of *epoché* with respect to that which is not immediately evident could very well have been a deliberate attempt to keep the focus on the more pragmatic goal of accomplishing the cessation of suffering.

In fact, an acceptance of rebirth itself as fact is not a prerequisite to following the Buddha's teachings. The implications of believing what rebirth *does* is often more palpable than proving what rebirth *is*.[17] Since ethical behavior is the essential directive in Buddhism, karma accounts for this directive in a representative manner and rebirth renders the idea more understandable. One could therefore take the idea of rebirth as an auxiliary thesis functioning mainly to aid the illustration of karma and the cycle of suffering. That is, cyclic existence (*saṃsāra)* is explained as an endless wheel of suffering (*dukkha*) experienced as a result of continuous rebirth into the six realms of existence that comprise it, and the principal factor that determines the type of rebirth each life will take, is karma. In this context, it would make sense to postulate the existence of both previous and future lives.

Thus, admitting that morality serves a purpose in personal development is much the same as accepting the reality of karma, at least in its preliminary form. The supernatural aspect of a phenomenon such as karma is something that can potentially ascribe meaning to an ethical system in a way that seems natural to the adherent.[18] As more concrete variations of moral hypotheses, supernatural concepts such as rebirth serve a real edifying purpose, and as such do not require the same level of veracity in terms of conforming to truth or fact. Whether or not rebirth truly exists is a very different question to asking how rebirth should be understood.

[16] Bertrand Russell first made the famous distinction between 'knowledge by acquaintance and knowledge by description' (Russell 1912, 25–38). Similarly some supernatural or supernormal cognition may be acquired through meditative experience, particularly following the development of *samādhi*. In Buddhism up to six forms are recognized: clairvoyance, clairaudience, mind reading, abilities of psychic travel, reminiscence of previous lives, and the ability to terminate defilements.

[17] Mikel Burley delves into ways that the belief in rebirth bears upon and manifests in believers' lives and how this relates to ethical behavior and human values (Burley 2016, 1 & 156).

[18] The human mind is well equipped to cope with religious ideas, and there is often a cognitive basis for a religious claim that renders it more easily acceptable than scientific theories. By contrast, certain scientific hypotheses actually appear unnatural to our cognitive dispositions (Boyer 1994; McCauley 2011).

Put differently, how a person understands or interprets the phenomenon of rebirth and the subsequent effect this might have on his or her ideas and behavior, is very different to establishing the truthfulness of rebirth.[19] Chogyam Trungpa explains that the six realms of existence within *samsara* as 'styles of imprisonment' correlate to six psychological states of mind, namely: self-absorption, paranoia, passion, anger, feeling of poverty, and stupidity (Trungpa 2005, 113–125). Rupert Gethin similarly notes that a certain parallelism between the psychological order and the cosmological order can be seen from the Abhidharma literature, where there is recognition that rebirth in the different realms of existence is determined by karma, and karma is directly linked to a person's psychological state. Buddhist cosmology therefore not only maps out various realms of existence, but also provides a description of possible types of experiences (Gethin 1998, 119–122). As part of the transitory nature of all that takes place within cyclic existence, rebirth is more than just a process taking place after death—it is also a process taking place throughout the course of life. As Peter Harvey puts it, we are constantly undergoing change in our daily lives and are in a sense 'reborn' from one moment to the next according to our various moods. This continuous process of change, determined by the nature of our thoughts and actions, may cause us to experience 'heavenly' or 'hellish' states of mind. This does not abruptly stop at death, but carries on (Harvey 2013, 47).

This parallelism between the psychological order and the cosmological order exists precisely because of the way in which moral constructs bear upon our psychological state. In Buddhism, the mind is invariably linked to the accumulation of karma. That is, every mental occurrence such as intention, will, thought, sensation, and so forth is fundamental to, and forms part of the process of karmic formation. To quote the Buddha: '*It is intention (cetanā), O monks, that I call kamma*; *having formed the intention*, *one performs acts by body*, *speech and mind* (A III, 415).' Intention or volition is thus the most significant factor contributing to the creation of karmic imprints, with unintentional actions seen to have less of a karmic impact. Since the quality of a person's mental state determines the type of karma that is accumulated, which in turn determines which of the six realms of existence he or she is born into; one could say that Buddhism equates the existential status of our mental states with the existential status of our karmic conditioning.

Transcendence therefore need not be interpreted in purely supernatural terms. Kenneth K. Inada makes a valid point in saying that supramundaneity does not imply a supernatural or a supernormal nature or being (Inada 1970, 50). On the level of moral education, the seemingly supernatural nature of rebirth can be constructively construed in terms of virtue and spiritual evolution. That is, within the context of edification, the moral and soteriological import of a seemingly supernatural concept such as rebirth carries far more significance than the quest to produce scientific proof of its actual existence. Religious theses involving some supernatural aspect represent the human capacity to imagine a beautiful world and show commitment to the embodiment of the ideals that will demand our behavior to actualize this world.

[19] But there are scholars, e.g., Stevenson 1980, 2000; Fontana 2005, 2009; Story 2003; Tucker 2008; Thanissaro 2012; Bodhi 2010, 2013, who try to argue for the truth of rebirth.

Emptiness as an Ontological Feature of Reality

In the opening chapter of *The Problem of Philosophy*, Bertrand Russell poses two fundamental questions: (1) Is there any such thing as matter? (2) And if so, what is its nature? (Russell 1912, 4). The first is an ontological question concerned with existence or being, while the second is an epistemological question pertaining to knowledge. The Buddha's likely response to the first question would be that we can acknowledge matter only if we were to bear in mind that it exists temporarily and is co-dependent on various factors for its existence. Being conditional and impermanent, we cannot claim that ontological status of matter exists in a way that can be established independently of other things. Based on this understanding, the Buddha might not agree that it is possible to locate the nature of things, since there is no constant essence behind any existent. Without a correct view on the emptiness (Skt. *śūnyatā*) of all things, it will remain a challenge to avoid conditioning our minds in ways that lead to suffering.

The Problem of Essentialism

Since nothing exists unconditionally with a nature of its own, neither affirmation nor refutation would be a proper response to Russell's question of whether there is any such thing as matter. As the Buddha explained to his disciple Kaccanagotta, cultivating the correct view (*sammā-diṭṭhi*) requires that one detaches from a dualistic view of being and non-being. Seeing the origin of all things as they really are, with correct understanding one does not hold an essential view of non-being; and seeing the cessation of all things as they really are, with correct understanding one does not hold an essential view of being (SA T02, 66–67).

Rather than turn to a reductive explanation for the world, the Buddha taught dependent arising (*paticca-samuppāda*), which implies that there is no essential being. Fire triangles provide a simple model for understanding the conditional factors for a fire to be ignited, namely: heat, oxygen, and fuel. Once ignited, the fire can be extinguished simply by eliminating any one of these constituent factors. This fire cannot however be reduced to either heat, fuel, or oxygen. Since no independent factor can be said to deterministically initiate any phenomenon; phenomena can at best be viewed as conditional existents. There is no fixed property that any particular type of matter must necessarily possess; hence the Buddha showed more interest in exploring *how* things operate rather than trying to determine what they *are*.[20] The fact that Buddhism values observations of our own experience over the quest to identify the real substance behind any one thing shows a particular soteriological orientation. In a metaphysical sense, the Buddha's position is not dissimilar to nominalism in allowing for temporary designations, while desisting from the claim of a universal nature or more substantial essence underpinning nominal terms. Nominalism can in this sense be seen as a type of anti- or non-essentialism whereby it is unreasonable to posit existence of an absolute entity, apart from those attributes which are constituent to the identity of an entity.[21]

[20] He did not, for example, ask '*what* is a man?' but rather dug into the question of '*how* is a man?' (Hamilton 1996, xxiv). Even where there is the pursuit of the question of knowing-what/that, such as in the approach of the Abhidharma, it is mainly for the soteriologial concern.

[21] See Garfield (2015, 217 & 240) for more on Buddhist anti-essentialist and nominalist leanings.

The central idea of dependent arising—and other core Buddhist teachings such as impermanence, non-self and emptiness—is that objects lack any inherent existence within them. Alfred North Whitehead echoes this when he remarks that we are usually mistaken in our understanding of this world, seeing provisional designations of constantly changing processes as having fixed substances.[22] To him, all actual events or entities are interrelated and dependent on multiple causes—they are the 'final real things of which the world is made up' (Whitehead 1978, 18). Things do not possess an enduring substance, but are more a process of becoming. Both the Buddha and Whitehead therefore observed the relational and interconnected nature of all things, with neither seeking to establish substantial entities as fundamental aspects of reality. Both agree that all things exist as part of a process and lack an inherent nature or essence—this is precisely the wisdom of impermanence and emptiness. The Buddha however goes a step further by suggesting that our ignorance with regard to the realities of the world leads us to vexation and suffering.[23]

The Limits of the Reductive Approach of Scientific Naturalism

Since all phenomena arise dependently and lack any kind of inherent essence, any reductive approach to discovering an essence behind that which appears to our senses will be in vain. It is very hard for the naturalist however to avoid what Buddhism calls the view of "self-nature" (Skt. *svabhāva*) or "self-being"—the belief that things exist as they are independent of any other cause. John R. Searle, for instance, chooses a scientific approach to the problem of mind and consciousness and advocates a causal reduction of mind to brain function. Although not entirely negating the reality of mind, he does equate consciousness with physical brain activity, claiming that the conscious mind is essentially nothing more than a biological brain.[24]

Based on the metaphysical assumption of essentialism, naturalism tends to adopt a reductive approach in order to develop scientific theories. This reductive approach is even more pronounced in scientific naturalism, which asserts that everything—including axiological processes—arise from physical and bio-chemical causes. Since the Buddha did not favor positing the fundamental constitution of a human being as a 'soul,' it is fair to assume that he would reject an essentialist reduction of mind to the brain. Buddhism attributes far more significance to mind and consciousness than just biological processes taking place within the brain. Given the vast range and incredible richness of the human conscious experience, it is hard to feel comfortable with the scientific naturalist approach of reducing all phenomena in the mental realm to mere physical equivalents.

[22] Alfred Whitehead has called the accidental error of mistaking the abstract for the concrete as 'The Fallacy of Misplaced Concreteness'(Whitehead 1967, 51–52 & 58).

[23] See Inada (1971, 1975) for a compelling account of the common features between Whitehead's philosophy and Buddhist theory. Though some of the basic insights overlap between the Buddha and Whitehead, there are also differences between the two thinkers. Please see Hartshorne (1975) for further discussion.

[24] John Searle notes: 'A useful distinction, for certain purposes, is to be made between the biological and the non-biological. At the most fundamental level, consciousness is a biological phenomenon in the sense that it is caused by biological processes, is itself a biological process, and interacts with other biological processes. Consciousness is a biological process like digestion, photosynthesis, or the secretion of bile. Of course, our conscious lives are shaped by our culture, but culture is itself an expression of our underlying biological capacities.' (Searle 2002, 60)

Thomas Nagel is one philosopher who objects to a physicalist account of mind that explains consciousness by way of neural mechanisms. He believes that hard science cannot fully explain subjective experience; it can only provide a physical construction of the neurophysiological process that gives rise to that experience or else give a physical illustration of the behavior associated with it. Nagel believes that the reductive program of materialist naturalism should explain not just the behavior of the inanimate world—something more is needed to explain how there can be conscious, thinking creatures whose bodies and brains are composed of those material elements. If we want to try to understand the world as a whole, we must start with an adequate range of data which must include the evident facts about ourselves. Because the subjective aspect of experience is left out, the nature of the organisms that generate mind and consciousness cannot be completely understood through the physical sciences alone (Nagel 2012). The scientific naturalist is therefore limited when it comes to providing solutions for serious challenges that relate to the human condition. Mainstream psychiatry for instance, looks at those mental illnesses such as schizophrenia exclusively as a physiological brain disorders. Research is however increasingly showing that the present model for mental treatment is problematic, since psychological disorder is not only endogenous to physical factors but also arises as a symptom of exogenous causes such as social, cultural, economic, and other non-physical factors (Raabe 2015). That means science alone cannot tell us what mental disorder is, and the distinction between mental health and mental disorder is not merely an objective matter that does not require taking into account value judgments (Varga 2015, 9).

In sum, both naturalism and physicalism rely on a mechanistic worldview in which all things are viewed in a materialistic and deterministic light, and where the basic assumption is that there are 'essences' which fundamentally constitute all aspects of existence. The main aim, therefore, is to discover a physical substance as the primary cause of all phenomena. In contrast to this, the Buddha's theories of dependent arising and emptiness are built on rationality without turning to the above-mentioned metaphysical postulates.[25] This is where Buddhism and naturalism can be said to part ways.

Re-examining Our Epistemic Habits

Buddhism exhibits certain similarities with religions that ultimately aim for salvation. The difference between reaching salvation and the Buddhist method for achieving liberation, however, is that liberation requires the subject to 'see things as they really are' (Skt. *Yathābhutadarśana*). That is, a liberated Buddhist saint is for his enlightenment to be capable of perceiving the true nature of reality. To unpack this, we need to look at the ontological question of 'things as they really are,' as well as the epistemological question of attaining knowledge of the true nature of things. That is, seeing the truth of things as they really are. Since the Buddha does not assent to 'self-nature,' ontologically he takes all things to be 'empty-of-self-being' (Skt. *svabhāva-śūnya*). From an epistemological point of view, the Buddha asserts that the source of our

[25] Recently the Newtonian idea of a materialistic and mechanistic world view has been challenged, and some would argue even replaced by a conception of nature as a realm of diverse powers, potencies, capacities, and dispositions—a 'dappled world.' It is true we live in an ordered universe, but we need to rethink the classical idea of the 'laws of nature' in a more dynamic and creatively diverse way. (Cartwright & Ward 2016)

suffering is our tendency to wrongly attribute some sort of 'self-being' or essence to phenomena. The following section takes a closer look at the Buddha's epistemic point of view and the resonant views for his reflections on human cognitive conditioning.

The Cognitive Turn: Re-directing Attention to the Epistemic Subject

One of the key teachings of the Buddha is 'non-self' (Skt. *anātman*) or 'emptiness-of-self' (Skt. *ātma-śūnyatā*) and a necessary requirement of attaining liberation is the realization that the notion of 'self' comprises an invalid cognition of our being. The teaching of 'non-self' states that although we may experience ourselves as entities that exist independently and constantly, there are in fact no such entities but merely senses of self. While the naturalist seeks to discover something in the external world to try to see things as they really are, the Buddha turns to the observer's psycho-physiological mechanism in order to bring him or her to see things as they really are. In other words, the Buddha emphasizes a rational approach as outlined in the previous section; however, his main concern is not primarily an epistemic understanding of the universe, but rather an understanding of phenomena relevant to our mind-body reality, i.e., the functioning of the five aggregates.

Both our view of the substantially existent 'self' and our view of substantially existent objects are fabrications stemming from a wrong view with respect to the true nature of phenomena, and so long as we do not hold a 'correct view' (Skt. *samyak-dṛṣṭi*), the way in which we conceptualize ourselves and the world around us will not correspond to the way they really are. Nāgārjuna, a well-respected commentator on the Buddha's original intent, even asserts that the core teaching of impermanence and non-self consists in relinquishing all views (*dṛṣṭi*). Any attachment to a certain point of view that establishes some inherent substance is doomed to fail. Because cognitive frameworks that are based on ignorance give a skewed interpretation of ourselves and the world around us, the Buddha could not but initiate the critical turn towards mental processes and redirect the focus towards the epistemic subject.

Since ignorance that apprehends reality is a cognitive obstruction to liberation, it is clear then, that this 'cognitive revolution' gives explicit priority to the study of mental phenomena over the investigation of external objects, and in this sense it bears resemblance to Immanuel Kant's Copernican revolution.[26] Copernicus radically changed our worldview by arguing that the observer himself must be revolving, since the motion of the stars cannot be merely expounded by making them revolve around the observer. Kant similarly reformulated our traditional epistemic approach by suggesting that our understanding of this world conforms to our cognitive apparatus. In the same way as Kant re-examined our relation to perceived objects, the Buddha suggests that the way in which we perceive objects depends on our conditioned interpretative framework. This means that an ignorant mind may attribute certain characteristics to objects that do not necessary belong to them. Suffering arises precisely because the untrained mind creates an illusory projection of the world. A good starting point for

[26] See Burton (2004, 106–107) for a discussion on the unbridgeable gap between experience and reality, and the similarities between the Mādhyamikas and the Kantians. Though Murti (1955, 123) suggests that the "Copernican revolution" in Indian philosophy was brought about by the Mādhyamika, the revolution may in fact hark back to the original insights of the Buddha.

obtaining the kind of knowledge that could potentially liberate a person would be to re-examine our psychological constituents and the ways in which they contribute to our karmic conditioning.

Likewise, no scientific enquiry can be wholly distanced from the conditioned constructs employed by it to measure and define its subject matter. Naturalized philosophy is no different in this regard—a naturalization of our understanding has to rely on some sort of conceptualization. Even the term 'naturalized' comes with certain preconditioned assumptions, and so it would never be entirely value neutral. What appears to be 'natural' is only so because of our having become accustomed to viewing it within a certain norm or structure. 'Supernatural' should therefore not be taken by extension to mean 'abnormal' but be taken to imply 'supernormal' in order to avoid the trap of cognitive bias or cultural chauvinism.[27]

Science as a Cultural Ideology

Scientific naturalism, and more specifically the form connected to scientism, has become a new orthodoxy according to which only scientifically obtained knowledge is held to be true and valid, and all explanations of phenomena are willfully confined to science without appealing to any possibilities outside the ambit of natural science. But scientism unjustifiably extends the authority of science beyond its proper limits and assumes that science can solve all of humanity's problems (Wallace 2000, 38; Williams and Robinson 2016). As C.P. Snow noted in his book *The Two Cultures* (1995), science is a human cultural activity merely representing one kind of culture; it is not necessarily the only road to discovering the truth. Any culture, or any product of culture for that matter, involves certain preconceptions that lead to an ideological understanding of the world. A good example of this is the theistic culture of Christianity, which for a significant period in history served very much as an ideological worldview. With the advent of modern-day science, we have been given an alternative interpretation of the world—one that is assumed to be superior in its methods due to shunning the supernatural and the mysterious; and so it is thought to give a 'more accurate' representation of the true nature of things.

It has however been suggested that natural science is a historical product—natural science as a form of thought exists and always has existed in a context of history and depends on historical thought for its existence (Collingwood 1945, 177). In addition to historical context, there are other cultural factors, social conventions, and institutions that have shaped our view of the world as 'constructed.' And from the view that 'constructed' reality can be broken down into more essential constituents arose the pursuit of 'scientific' knowledge. As we strive to scientifically measure phenomena believed to be separate and external to our conditioned cognitive apparatus, we seldom question the cognitive mechanisms which allow us to define our observations. Since truth is always going to be somewhat of a conditioned construct, our knowledge does not necessarily reflect all realities. This is precisely why the constructivist rejects an

[27] In certain societies for example, frequent sexual activity is deemed a sign of vitality, yet in others certain spiritual practices may allow a practitioner to lessen or even do away with sexual desire altogether. There are also meditative practices that have been shown to reduce the biological craving for food and sleep. It would not be reasonable then to interpret every 'supernormal' outward manifestation as an 'abnormal' biological function or biological 'dysfunction.'

objectivist view of the world—'truth' is seen to be inextricable from cultural and social factors.[28]

Furthermore, according to the basic insight of perspectivism, ideas are constructed based on particular perspectives, hence no single interpretation of the world can be accepted as true, definite, or final. Various conceptual schemes allow for various judgments of truth or value to be made. But this does not mean that all perspectives are equally correct. To the contrary, they are all problematic. This resonates with the Buddha's assertion that unless we eradicate ignorance, all our views regarding the nature of things will be mistaken. Whatever we see will be tainted by a mistaken belief of inherent existence, much like how tinted glasses yield a biased view of the world to the one who wears them.

In light of Thomas Kuhn's theory of paradigm, the prevalent scientific paradigm is mainly a net of intertwined convictions and presumptions possessed by a specific community which founds the agenda of current study. Also as Charles S. Peirce aptly puts it, the formation of meaning is fixed by the habit it produces, and truth is mainly a propensity of our belief habit (Wilson 2016, 252–256). Both our perception of things and the questions we ask about things can be influenced or determined by our cultural presupposition or conditioned belief system. Science is also a kind of 'belief habit' we have all come to agree upon. Whatever results we obtain from the scientific method of enquiry are more expressions of the process of enquiry than any definite reflection of the nature of the object of enquiry. It should therefore not be seen as the only authoritative source of knowledge.

Scientific theories provide a useful and consistent model for interpreting the world within a certain pre-defined framework, yet they may fall outside the pre-defined realm of molecules and atoms.[29] Referring to the workings of traditional Chinese medicine and acupuncture, Hubert Dreyfus and Charles Taylor (2015, 153 &157) both pointed out that modern scientific medicine cannot at present fully account for the way in which this system of healing works on the body's energetic system. This does not however mean that it is ineffective. That which goes beyond the 'natural' as defined by science ought not be discarded simply for failing to fit this particular model of the world, for the world is larger than the scientific version of it.[30]

[28] See Smith (2009) for more about constructivist-pragmatist epistemology. Also see Wallner (2006) for further arguments about the dependency of science on culture, and how culture is the pre-supposition of scientific construction. Rupert Sheldrake (2012) and Curtis White (2014) similarly suggest that science is in many ways really no more than a common faith or an ideology—a set of assumptions agreed upon by the scientific community.

[29] Over the last hundred years or so, Newtonian absolute conceptions of space and time have been challenged by Einsteinian relativity and/or the growth of quantum theories. That is, the machine-model implied by 'mechanistic' and 'deterministic' has been largely called into questions by modern physics, more or less deconstructing the assumption of such a 'pre-defined realm.'

[30] To illustrate this point, the Dalai Lama makes the distinction between proof of absence and absence of proof: the former is found not to exist or justified that it is not existential but the latter is a case of having not yet found its existence. This is similar to the difference between seeing its non-existence and not seeing a thing (Dalai Lama 2006, 35). That which has yet to be discovered or measured through the scientific method should not be seen as non-existent or at this time refuted.

Conclusion: A Middle-Way Approach to Naturalism

The Buddha's teaching can be said to overlap with naturalism insofar as it contains humanistic, rational, empirical, pragmatic, and realistic aspects. Instead of placing emphasis on divine creation, revelation, or intervention, the Buddha as well as modern scientists center on causality to provide interpretation and prediction.[31] Like science, Buddhist practice is also aimed at eradicating erroneous views about the world and bringing about a true realization of nature of all things. Upon further analysis, however, it is clear that the Buddha's teaching is much broader than the naturalist outlook. Buddhism is perhaps more naturalistic than theistic traditions such as Brahmanism; yet it is less naturalistic than the materialistic outlook of the Lokāyatikas or Cārvākas of ancient India. The Buddha steers clear of mysticism and also deliberately avoids the extreme of materialism. If reality can only be defined by those things that hard science has the capacity to discover, then our view of reality will be limited to partial or incomplete truths. How one chooses to define 'nature' will obviously influence the approach to 'naturalization,' yet it should not be taken to imply '*narrowlization*.'

Fortunately, there have been calls in modern academic circles for a more liberal or pluralistic form of naturalism—an alternative to scientific naturalism or scientism that would allow for a more inclusive conception of nature, and one which understands this world not in a merely reductive fashion.[32] Some have suggested 'relaxed naturalism' (McDowell 1996, 89) or 'liberal naturalism' (McDowell 2004, 98), while others have put forward the concept of 'near-naturalism' (Baker 2013, 207–209) or 'quasi-naturalism' (Baker 2009, 85–89), neither of which appeal to the supernatural, yet can still allow for a richer frame of reference.[33] Ideally, the natural world can be understood in a wider sense to include the axiological dimension of transcendence to an overall understanding of human potentiality.[34]

In sum, it is my view that the Buddha would not object to the claim 'nature is earlier than man, but man is earlier than natural science' (Heisenberg 2000, 23) and 'what we observe is not nature in itself but nature exposed to our method of questioning' (Heisenberg 2000, 25). Buddhist rationalist inquiry into the true nature of phenomena does indeed resonate with the spirit of scientific naturalism; however, science seeks

[31] Kalupahana (1975) suggests that the 'causality' is the central philosophy of Buddhism. In fact, not only the Buddha but also a number of great Buddhist philosophers emphasize causality/causation and incline to an empiricist point of view (without turning towards physicalism.) Dharmakīrti, an Indian Buddhist philosopher in the seventh century, is a case in point. See Arnold (2012) for further discussion.

[32] Yet even those who propose a more liberal form of naturalism remain skeptical of the supernatural, believing that reality can be exhausted by the natural world. See De Caro and Macarthur (2004, 2010) for more about liberal naturalism.

[33] As Ganeri (2012, 31–32) suggests, there are various forms of liberal naturalism, and the teachings of the Buddha can be categorized as one form in the Indian tradition.

[34] In the book *Naturalism in Question,* a group of leading academics propose the idea of a more inclusive or liberal type of naturalism that would not go so far as to endorse some form of supernaturalism. They argue that scientific naturalism faces severe challenges in terms of self-consistency, and cannot solve the problems of mind, free will/freedom, action/agency, and normativity in ethics and aesthetics (De Caro and Macarthur 2004). There is even a promotion of 'religious naturalism' as an increasingly plausible and potentially rewarding form of religious moral life, resisting the false dichotomies of faith and reason, religion and science; and construing forms of religious transcendence through immanently and eminently naturalistic frames of reference (Hogue 2010).

factual knowledge of the objective world, while the Buddha is mostly concerned with the subjective experience of the observer. Since access to our moral and spiritual dimensions is entirely possible by way of internal inspection, he prioritizes the kind of wisdom that is capable of transforming the individual inwardly, in order to end the cycle of suffering. What separates the Buddha's teaching from scientific naturalism is precisely this soteriological objective: inquiry into phenomena as the basis of wisdom development aimed at achieving liberation. On the other extreme, the Buddha's view does not accord with monistic metaphysical standpoints as exemplified by Lokāyatika or physicalism; this does not however mean that Brahmanism or any form of theism is assumed, since the Buddha strongly advises against clinging to rigid dogmas, adopting superstitious rituals, or aiming to attain salvation by means of absolute faith in a higher power. Because the Buddha's view both shares certain similarities and contains certain dissimilarities with respect to scientific naturalism, it would perhaps be a fair assessment to say that the Buddha may take a middle-way approach to investigating and understanding the universe and its laws in purely naturalistic terms.

Acknowledgement Many thanks to Ciska Joubert for correcting and rephrasing the English writing.

References

Aṅguttara Nikāya (*A*), III.
Samyukta-Agama (*SA*), T02.
Arnold, D. (2012). *Brains, Buddhas, and believing: the problem of intentionality in classical Buddhist and cognitive-scientific philosophy of mind*. New York: Columbia University Press.
Baker, L. R. (2009). *The metaphysics of everyday life: an essay in practical realism*. Cambridge: Cambridge University Press.
Baker, L. R. (2013). *Naturalism and the first-person perspective*. Oxford: Oxford University Press.
Batchelor, S. (1998). *Buddhism without beliefs: a contemporary guide to awakening*. NY: Riverhead Books.
Batchelor, S. (2015). *After buddhism: rethinking the dharma for a secular age*. New Havens: Yale University Press.
Bodhi, B. (2010). *Dhamma without rebirth?* Retrieved from http://www.accesstoinsight.org/lib/authors/bodhi/bps-essay_06.html. Accessed 21 Aug 2017.
Bodhi, B. (2013). *Does rebirth make sense?* Retrieved from: http://www.accesstoinsight.org/lib/authors/bodhi/bps-essay_46.html. Accessed 21 Aug 2017.
Boyer, P. (1994). *The naturalness of religious ideas: a cognitive theory of religion*. Berkeley: University of California Press.
Burley, M. (2016). *Rebirth and the stream of life: a philosophical study of reincarnation, karma and ethics*. New York: Bloomsbury Academic.
Burton, D. (2004). *Buddhism, knowledge and liberation: a philosophical study*. New York: Routledge.
Cartwright, N., & Ward, K. (Eds.). (2016). *Rethinking order: after the laws of nature*. London: Bloomsbury Academic.
Collingwood, R. G. (1945). *The idea of nature*. Oxford: Oxford University Press.
Craig, W. L., & Moreland, J. P. (Eds.). (2000). *Naturalism: a critical analysis*. London: Routledge.
Curtis White (2014) *The science delusion*: *asking the big questions in a culture of easy answers*.
Dalai Lama. (2006). *The universe in a single atom: the convergence of science and spirituality*. New York: Three Rivers Press.
Dalai Lama. (2014). Foreword. In C. Impey (Ed.), *Humble before the void: a Western astronomer, his journey East, and a remarkable encounter between Western science and Tibetan Buddhism* (pp. vii–viii). West Conshohocken, PA: Templeton Press.
Dalai Lama, T. J. (Ed.). (2009). *The middle way: faith grounded in reason*. Boston: Wisdom Publications.
De Caro, M., & Macarthur, D. (Eds.). (2004). *Naturalism in question*. Cambridge: Harvard University Press.

De Caro, M., & Macarthur, D. (2010). *Naturalism and normativity*. New York: Columbia University Press.
Dreyfus, H., & Taylor, C. (2015). *Retrieving realism*. Cambridge, MA: Harvard University Press.
Flanagan, O. (2007). *The really hard problem: meaning in a material world*. Cambridge, MA: MIT Press.
Flanagan, O. (2008). Varieties of naturalism. In P. Clayton (Ed.), *The Oxford handbook of religion and science* (pp. 430–452). Oxford: Oxford University Press.
Flanagan, O. (2011). *The Bodhisattva's brain: Buddhism naturalized*. Cambridge, MA: MIT Press.
Fontana, D. (2005). *Is there an afterlife?: a comprehensive overview of the evidence*. Winchester: O Books.
Fontana, D. (2009). *Life beyond death: what should we expect?* London: Watkins.
Ganeri, J. (2012). *The self: naturalism, consciousness, and the first-person stance*. Oxford: Oxford University Press.
Garfield, J. L. (2015). *Engaging Buddhism: why it matters to philosophy*. Oxford: Oxford University Press.
Gethin, R. (1998). *Foundations of Buddhism*. Oxford: Oxford University Press.
Gombrich, R. F. (2006). *How Buddhism began: the conditioned genesis of the early teachings*. London: Taylor & Francis.
Gombrich, R. F. (2009). *What the Buddha thought*. London: Equinox Publishing Ltd.
Hamilton, S. (1996). *Identity and experience: The constitution of the human being according to early Buddhism*. London: Luzac Oriental.
Hamilton, S. (2000). *Early Buddhism: a new approach. The I of the beholder*. London: Curzon.
Harris, S. (2014). *Waking up: a guide to spirituality without religion*. Simon & Schuster.
Hartshorne, C. (1975). Whitehead's differences from Buddhism. *Philosophy East & West, 25*, 407–413.
Harvey, P. (2013). *An introduction to Buddhism: teachings, history and practices*. Cambridge: Cambridge University Press.
Heisenberg, W. (2000). *Physics and philosophy: the revolution in modern science*. London: Penguin Classics.
Hogue, M. S. (2010). *The promise of religious naturalism*. Lanham, Md: Rowman & Littlefield Publishers.
Holder, J. J. (2013). A survey of early Buddhist epistemology. In S. M. Emmanuel (Ed.), *A companion to Buddhist philosophy* (pp. 224–225). Oxford: Wiley-Blackwell.
Inada, K. K. (1970). Buddhist naturalism and the myth of rebirth. *International Journal for Philosophy of Religion, 1*(1), 46–53.
Inada, K. K. (1971). Whitehead's 'actual entity' and the Buddha's anatman. *Philosophy East and West, 21*(3), 303–315.
Inada, K. K. (1975). The metaphysics of Buddhist experience and the Whiteheadian encounter. *Philosophy East and West, 25*(10), 465–487.
Jayatilleke, K. N. (1980). *Early Buddhist theory of knowledge*. Delhi: Motilal Banarsidass.
Kalupahana, D. J. (1975). *Causality: The Central Philosophy of Buddhism*. Honolulu, HI: University of Hawaii Press.
Lin, C.-T. (2016). An exploration of what "Buddhism naturalized" have been seen and unseen. *Journal of Chinese Language and Literature of National Taipei University, 9*, 57–88.
McCauley, R. N. (2011). *Why religion is natural and science is not*. Oxford: Oxford University Press.
McDowell, J. (1996). *Mind and world*. Cambridge, MA: Harvard University Press.
McDowell, J. (2004). Naturalism in the philosophy of mind. In M. de Caro & D. Macarthur (Eds.), *Naturalism in Question* (pp. 91–105). Cambridge, MA: Harvard University Press.
Murti, T. R. V. (1955). *The central philosophy of Buddhism: a study of the Madhyamika system*. New Delhi: Munshiram Manoharlal Publishers.
Nagel, T. (2012). *Mind & cosmos: why the materialist neo-Darwinian conception of nature is almost certainly false*. Oxford: Oxford University Press.
Nanamoli, B., & Bodhi, B. (1995). *The middle length discourses of the Buddha: a new translation of the Majjhima Nikaya*. Boston: Wisdom Publications.
Neufeldt, V., & Guralnkik, D. B. (1988). *Webster's New World dictionary of American English*. Pearson Prentice Hall.
Payutto, P. (trans: G. A. Olson) (1995). *Buddhadhamma: natural laws and values for life*. Albany: State University of New York Press.
Putnam, H. (2004). *The collapse of the fact/value dichotomy and other essays*. Cambridge, MA: Harvard University Press.
Quine, W. V. (1960). *Word and Object*. Cambridge, MA: The MIT Press.
Raabe, P. B. (2015). *Philosophy's role in counseling and psychotherapy*. Rowman & Littlefield Pub Inc.
Rahula, W. (1974). *What the Buddha taught*. NY: Grove Press.
Ritchie, J. (2008). *Understanding naturalism*. Stocksfield, England: Acumen.
Russell, B. (1912). *The problem of philosophy*. Oxford: Oxford University Press.
Searle, J. R. (1997). The mystery of consciousness. In *The New York review of books*. New York.

Searle, J. R. (2002). Why I am not a property dualist. *Journal of Consciousness Studies, 9*(12), 57–64.
Sen, A. (2014). The contemporary relevance of Buddha. *Ethics & International Affairs, 28*(1), 15–27.
Sheldrake, R. (2012). *The science delusion: freeing the spirit of enquiry*. London: Coronet.
Smith, B. H. (2009). *Natural reflections: human cognition at the Nexus of science and religion*. New Haven: Yale University Press.
Stevenson, I. (1980). *Twenty cases suggestive of reincarnation*. Virginia: University of Virginia Press.
Stevenson, I. (2000). *Children who remember previous lives: a question of reincarnation*. Jefferson: McFarland & Co Inc Pub.
Story, F. (2003). *Rebirth as doctrine and experience: essays and case studies*. Sri Lanka: Buddhist Publication Society.
Thanissaro, B. (2012). The truth of rebirth: and why it matters for Buddhist practice. Retrieved from http://www.accesstoinsight.org/lib/authors/thanissaro/truth_of_rebirth.html. Accessed 21 Aug 2017.
Trungpa, C. (2005). *The sanity we are born with: a Buddhist approach to psychology*. MA: Shambhala.
Tucker, J. B. (2008). *Life before life: children's memories of previous lives*. New York: St. Martin's Griffin Press.
Varga, S. (2015). *Naturalism, interpretation, and mental disorder*. Oxford: Oxford University Press.
Wallace, B. A. (2000). *The taboo of subjectivity: toward a new science of consciousness*. New York, Oxford: Oxford University Press.
Wallace, B. A. (2012). *Meditations of a Buddhist skeptic: a manifesto for the mind sciences and contemplative practice*. NY: Columbia University Press.
Wallner, F. G. (2006). *What practitioners of TCM should know: a philosophical introduction for medical doctors*. Frankfurt am Main: Peter Lang.
Whitehead, A. N. (1967). *Science and the modern world*. NY: The Free Press.
Whitehead, A. N. (1978). *Process and reality*. NY: The Free Press.
Williams, P. (2000). *Buddhist thought: a complete introduction to the indian tradition*. London & New York: Routledge.
Williams, R. N., & Robinson, D. N. (2016). *Scientism: The New Orthodoxy*. London: Bloomsbury.
Wilson, A. B. (2016). *Peirce's empiricism: its roots and its originality*. MD Lanham: Lexington Books.