Science, Reason, and Buddhism

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Abstract

Buddhism is unique in the world's major religions in that there is no god, no omnipotent being who creates the world and acts in it for its own ends. Consequently, there can be no such thing as divine revelation. All we can do is to figure things out for ourselves. As the *Kālāma Sūtra* puts it: don't believe something just because some sacred text or person says it to be so; it's got to make sense to you. Of course, you can take expert advice. When it comes to the nature of the natural world we live in, the experts are the scientists. Thus, HH the 14th Dalai Lama says that if Buddhist beliefs conflict with science, then it is the Buddhist beliefs that need to be revised. In fact, it is remarkable to what extent modern science has shown the Buddhist view of the natural world to be right: we live in a world of massively interconnected causal interaction, and are ourselves objects composed of parts in a dynamic evolution. Of course, there are things in some Buddhist texts that science does not now endorse, such as that there is a mountain, Mt Sumeru, at the middle of the Earth's surface. Putting this down to mythology or a time when the geography of the world was largely unknown is easy enough. But there are some fairly orthodox Buddhist beliefs which are not verified by science which are not so easily disposed of. The most obvious are the beliefs in karma and rebirth. What is to be said of these? In this essay, I will discuss all these matters.

1 Introduction

The origins of Buddhism are relatively easy to date, since it starts with the thought of the historical Buddha, c. 5c BCE. The origins of science are much harder to date. Of course, people have been investigating the natural world and proposing theories about how it works since the same date, if not earlier. Call this science if you want. But modern science, starting around the 17th century, is a rather different kind of beast. The use of systematic experimentation (not just observation), on the one hand, and the application of mathematics, on the other, have combined to deliver an understanding of the world (though a fallible and corrigible one) of a depth unthinkable before. Moreover, the application of modern science has delivered a wealth of technological applications that could only have appeared as magical to previous generations: flying, talking to people on the other side of the world, curing hitherto deadly illnesses, and so on.

Unsurprisingly, the Ancient does not always sit easily with the Modern. Science has often shown us that past views are wrong. There are then obvious questions about how Buddhist views, most of which developed before the Scientific Revolution, fare with respect to what science has shown us about the world, and about how Buddhists should react if there is a conflict. This essay discusses the matter.

But let me start with a warning. Buddhism has been developing for some two and a half thousand years now in various parts of Asia, and continues to develop as it moves into the West. In the process, many different forms of Buddhism have emerged. There is an enormous variety amongst these. The oldest extant form of Buddhism, Theravāda, to be found now in parts of South East Asia, is significantly different from the tantric Buddhisms of Tibet and Japan. These, again, are very different from Japanese Zen Buddhism.[1] And of course, there can be a world of difference between what Buddhist philosophers have made of matters and the views of the Buddhist-in-the-street, for whom Buddhist thought is often mixed with aspects of popular culture. It therefore makes little sense to claim to be presenting *the* Buddhist view on some topic. What follows is perforce my perspective. I will return to the matter at the end of the essay.

[1] On the different forms of Buddhism, see Mitchell (2002). For a brief description of the development of Buddhist thought in India and China, see Priest (2014), pp. *xxiii-xxvii*.

2 Buddhism and Theism

Uncontentiously, Buddhist thought begins with the teachings of the historical Buddha, Siddhārta Gautama. ('Buddha' is an honorific, meaning *awakened* or *enlightened*.) The Buddha flourished in North East India some time in the 6th or 5th Centuries BCE. More precise dates are conjectural. It developed against the background of the orthodox Hindu thought of the time, and famously made a break with it in two important regards.[2]

First of all, in Hinduism, there is a godhead, *Brahman*. Hinduism is commonly held to be some form of polytheism; and in popular culture, it certainly is. But, strictly, the gods in the Hindu pantheon are all aspects of, or avatars of aspects of, Brahman. Secondly, each individual has a self, *ātman*.[3] Indeed, in some sense, *ātman* and *Brahman* are one, though a full realisation of this fact may only come with enlightenment (*mokṣa*). Buddhism rejected both of these claims.

We will return to *anātman* (no self) in due course; but for the moment let us stay with god. Buddhism does not endorse the existence of a god. True, in some Buddhist cosmologies and popular cultures, there are held to be "deities" of a certain kind, which live in some celestial realm. But like all sentient creatures, they will die and be reborn in other realms. They are nothing like transcendental godheads of Hinduism or the Middle Eastern religions.

This is significant, since if there is no god, there can be no such thing as what is revealed by god. To put it in Christian terms, though there can be a natural theology (what you can figure out with your intellect), there can be no revealed theology (what you can know only because god has told you). Hence Buddhism is, of necessity, dependent on its views standing on their own feet, as it were.

The point was stressed by the Buddha himself. Thus, in the *Kālāma Sūtra* we find him saying:[4]

> Do not go upon what has been acquired by repeated hearing; nor upon tradition; nor upon rumor; nor upon what is in a scripture;

[2] For an introduction to Hinduism, see Koller (2018), ch. 2.

[3] Indian Buddhists texts are written in two languages, the vernacular Pāli, and the scholarly Sanskrit. I will generally use the Sanskrit terms.

[4] *Aṅguttara Nikaya*, 3.65. Translation from Buddha Dharma Education Association (nd).

> nor upon surmise; nor upon an axiom; nor upon specious reasoning; nor upon a bias towards a notion that has been pondered over; nor upon another's seeming ability; nor upon the consideration, 'The monk is our teacher.' Kalamas, when you yourselves know: 'These things are good; these things are not blamable; these things are praised by the wise; undertaken and observed, these things lead to benefit and happiness,' enter on and abide in them.

You have to make your own mind up; though of course, as the *sūtra* says, it is sensible to be guided by experts, the wise.

But who are the wise? Different people have wisdom about different things. A chess grand master has expertise about chess, but maybe not about cooking. A master chef has expertise about cooking, but maybe not about chess.

Who are the experts when it comes to the natural world? In contemporary society they are scientists. Why so? How do you know that grand masters have expertise in chess? Because if you play them, they will beat you every time. The proof of the pudding is, as the English saying goes, in the eating. Now, modern technology is based on modern science, and this makes possible the most amazing things: sending people to the moon, developing a vaccine for Covid-19 in a remarkably short period of time, designing computers that can translate between Chinese and English and so on. The proof of the scientific wisdom is in its results.

It is unsurprising, then, to find many contemporary Buddhists saying that if Buddhist views conflict with science, it is the Buddhist views that have to give way. For example, the (current) Dalai Lama, Tenzin Gyatso, says:[5]

> If science proves some belief of Buddhism wrong, then Buddhism will have to change. In my view, science and Buddhism share a search for the truth and for understanding reality. By learning from science about aspects of reality where its understanding may be more advanced, I believe that Buddhism enriches its own worldview.

Another well known contemporary Buddhist, the late Thich Nhat Hanh, puts the humility here in this way:[6]

[5] Tenzin Gyatso (2005).

[6] Edelglass (2005), p. 422. Italics original.

> Nonattachment to Views: *Aware of the suffering created by attachment to views and wrong perceptions*, we are determined to avoid being narrowminded and bound to present views. We shall learn and practice nonattachment from views in order to be open to others' insights and experiences. We are aware that the knowledge we presently possess is not changeless, absolute truth. Truth is found in life, and we will observe life within and around us in every moment, ready to learn throughout our lives.

Such an attitude is not possible if one believes that certain views have been revealed as true by an almighty god. If science conflicts with them, it is the science that must go—as we have seen with episodes in Christianity, both historical (with the reaction of the Church to Galileo and Darwin) and contemporary (with fundamentalist Christians in the US and the Theory of Evolution). Of course, it is always possible, as many Christians do, to reinterpret passages in the Christian Bible—as metaphors, or in some other way. But what you can't do is say that God just got it wrong.

3 *Anitya*

Having said that, it is remarkable the extent to which a Buddhist perspective on the natural world is compatible with—indeed, verified by—contemporary science. It is a standard Buddhist view that there are three marks of reality: impermanence (*anitya*), unsatisfactoriness (*duḥkha*), and lack of self (*anātman*). As the *Dhammapada* puts it (*vv* 277-279):[7]

> "All conditioned things are impermanent"—when one sees this with wisdom, one turns away from suffering. This is the path to purification.
>
> "All conditioned things are unsatisfactory"—when one sees this with wisdom, one turns away from suffering. This is the path to purification.
>
> "All things are not-self"—when one sees this with wisdom, one turns away from suffering. This is the path to purification.

Let us leave *duḥkha* for the present (I will come back to it in due course), and consider the other two, starting with *anitya*: everything in the causal

[7] Buddharakkhita (1985), p. 65.

flux (that is, every object with which the natural and social sciences concern themselves) is impermanent. Things come into existence when causes and conditions are ripe, maintain themselves for a time, and then go out of existence when causes and conditions so determine.

The claim that reality is thus was presumably made as a simple generalisation of what was observe. However, science has given us much deeper reasons for supposing it to be true. Thus, it has now given us theories of evolution in biology and physics. We know that the habitat of the Earth and other planets has evolved, that geological features appear and disappear, that species appear, evolve, and disappear. We know that all the physical configurations in the cosmos (galaxies, stars, planets, etc), came into existence at certain times, and are in a process of constant change. Quantum mechanics tells us that fundamental particles themselves come into, and go out of existence. Indeed, contemporary science tells us that the whole cosmos itself came into existence about 13.8 billion years ago in the "Big Bang". Moreover, the third law of thermodynamics tells us that entropy tends to a maximum. In other words, every ordered structure, be it a planet, a painting, or a person, will eventually lose its structure and disintegrate. Perhaps the cosmos itself will go out of existence in the mirror image of the Big Bang, the Big Crunch; or maybe it will expand indefinitely until its density is as near zero as makes no difference, which is as good as going out of existence since there will effectively be nothing there.

4 *Anātman*

Let us turn to *anātman*. We noted in §2 that Buddhism made two major breaks from Hinduism. *Anātman* was the second of these. It is important to understand what this means, however, since the word 'self' can be used in many ways. *Anātman* does not mean that there are no people. There is a very clear sense in which Buddhism holds there to be people. Their existence might be conventional in a certain sense, but that they do have such an existence is clear.

When Buddhists deny the existence of a self, what they are denying is that people have a part which is constant, exists all the time the person exists, and indeed defines the person as that very person. The closest analogue in Western thought is the soul.

If a person has no self, what, then, are they? The standard analogue is a

chariot, but let us update this a bit, and consider a car. A car is an object composed of parts. The parts came together in a factory at some time; they interact with each other, and with the environment. Some parts wear out and are replaced. In the end, the parts no longer function together (remember the third law of thermodynamics), and the car goes out of existence. Crucially, any part of the car can be replaced whilst the car remains the same car. You still own the same car if you replace the clutch, or the tyres. Even the registration plates can change if you move state. Now, you are the same as the car. Your parts are not electrical and mechanical, as are those of a car. They are psycho-biological. But the general picture is exactly the same.

Buddhist philosophers did not make the claim of *anātma*n as a generalisation from experience. Indeed, it is highly counter-intuitive. We are all inclined to think that there is an essential *me*. They made it on the basis of philosophical arguments, such as those given by Vasubandhu (fl. 4-5 c. CE) in Chapter 9 of his *Abhidharmakośa-Bhāṣya*.[8]

However, the picture sits very comfortably with modern sciences, such as anatomy, chemistry, psychology. A doctor who professed to find a soul in someone's body, in the way that they can find a gall bladder or spleen, would not last very long in the profession. The physical parts of a person's body are changing all the time. Every morning after breakfast, the physical constitution of your body changes. According to some estimates, all the matter in your body changes within ten years.[9]

It is perhaps more plausible that a self could be located, not in the physical body, but in consciousness—whatever relationship this bears to the physical body. And indeed, we do seem to have a sense of *me*ness—a centre of consciousness, if you like. The self cannot reside in consciousness, however, simply because consciousness is lost when a person is knocked out or anaesthetised. Though unconscious, the person remains the same person. So at best the self could be only the *potential* for a certain kind of consciousness.

However, many modern cognitive scientists argue that even when one is conscious, there is, in fact, no "centre of consciousness". That there is such a thing an illusion. Dennett puts matters as follows:[10]

[8]See Duerlinger (2003), pp. 71–110. For discussion, see Priest (2019).

[9]See, e.g., Opfer (2021).

[10]Dennett (1993), pp. 253-4. The book reviews the evidence and mounts the case for the view. See, especially, Part II of the book. See also Varela, Thompson, and Rosch (1991).

> There is no single, definitive "stream of consciousness," because there is no central Headquarters, no Cartesian Theater where "it all comes together" for the perusal of a Central Meaner. Instead of such a single stream (however wide), there are multiple channels in which specialized circuits try, in parallel pandemoniums, to do their various things, creating Multiple Drafts [GP: of a narrative of the self] as they go. Most of these fragmentary drafts of "narrative" play short-lived roles in the modulation of current activity but some get promoted to further functional roles, in swift succession, by the activity of a virtual machine in the brain. The seriality of this machine... is not a "hard-wired" design feature, but rather the upshot of a coalition of these specialists.

In Buddhist terms, consciousness is a flux of transient and interconnected mental states, occurring in series or in parallel. Early Buddhist philosophy (Abhidharma) had a sophisticated taxonomy of such mental states and their inter-relationships.[11] Modern cognitive/neuro-science may tell a more sophisticated story. But that is what one should expect in the development of any area of empirical enquiry.

Unsurprisingly, then, a number of neuro-scientists and Buddhists (not that these categories are exclusive) have come to realise that many projects concerning the understanding of the mind may be profitably pursued drawing on both areas of expertise.[12] One of these concerns meditation. Meditation practices of various kinds have always been important to Buddhism. These practices are held to bring about changes in a person's consciousness, both short-term and long-term. There is certainly anecdotal evidence for such a claim. The work of neuro-scientists and psychologists has allowed many claims about meditation to begin to be tested scientifically.[13]

Let me end this section by noting that in Madhyamaka Buddhism, and all the other schools of Buddhism influenced by this, the view that a person does not have a self is generalised to the claim that *all* things lack self. What this means is that all things lack an intrinsic nature (*svabhāva*): things are what they are only in virtue of the relationships they bear to other things.

[11] See Ronkin (2018).

[12] Such is the aim, for example, of the Mind and Life Institute, set up by Francisco Varela and the Dalai Lama in 1991, which has been functioning very successfully since then, https://wow.mindandlife.org.

[13] For a survey of some of the work in this area and its results, see Van Dam *et al.* (2018). See also Davidson and Lutz (2008).

That is, they are empty (*śūnya*). A good case can be made for the claim that modern science also vindicates this view, though a discussion of this is beyond what is possible here.

5 Logic

Let us go back to the *Kālāma Sūtra*, and change tack a little. The Buddha advises us not to be taken in by specious reasoning. But what sorts of reasoning are specious? The study of correct/incorrect reasoning is, of course, the field of logic.

In the West, logical orthodoxy has subscribed to two important principles: the Principle of Excluded Middle (PEM: every statement is *either* true or false), and the Principle of Non-Contradiction (PNC: no statement is *both* true and false). Thus, every statement (as long as it is not ambiguous in some way or other) is either true or false, but not both.[14]

Now, in Buddhist thought, there is a principle called the c*atuṣkoṭi*—four points. This is to the effect that every statement is either true (and true only), false (and false only), both true and false, or neither true nor false. The origins of the c*atuṣkoṭi* in Indian thought are somewhat murky. But the framework was certainly in place by the time of the Buddha. This is clear because it is on display in a number of *sūtra*s. For example, in the *Agivaccha-gotta Sutta*, the Buddha's interlocutor, Vaccha, is interested in what happens to an enlightened person after they die. (What happens before death is clear, since we have the Buddha himself to show us.) The dialogue goes as follows:[15]

> "How is it, Master Gotama, does Master Gotama hold the view: 'After death a Thatāgata exists: only this is true, anything else is wrong'?"
>
> "Vaccha, I do not hold the view: 'After death a Thatāgata exists: only this is true, anything else is wrong.'"
>
> "How then, does Master Gotama hold the view: 'After death a Thatāgata does not exist: only this is true, anything else is

[14]Thus, the person usually taken to be the founder of logic in the West, Aristotle, defends both principles in his *Metaphysics*—though oddly enough, he seems to reject the PEM in the somewhat notorious Chapter 9 of *De Interpretation*.

[15]Ñāṇamoli and Bodhi (1995), p. 591. A *Thatāgata* is someone who has achieved enlightenment.

wrong'?"

"Vaccha, I do not hold the view: 'After death a Thatāgata does not exist: only this is true, anything else is wrong.'"

"How is it, Master Gotama, does Master Gotama hold the view: 'After death a Thatāgata both exists and does not exist: only this is true, anything else is wrong.'?"

"Vaccha, I do not hold the view: 'After death a Thatāgata both exists and does not exist: only this is true, anything else is wrong.' "

"How then, does Master Gotama hold the view: 'After death a Thatāgata neither exists nor does not exist: only this is true, anything else is wrong'?"

"Vaccha, I do not hold the view: 'After death a Thatāgata neither exists nor does not exist: only this is true, anything else is wrong.'"

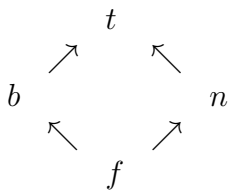
The four possibilities put to the Buddha are exactly those of the *catuṣkoṭi*, and the framework is not challenged by the Buddha. He does not say 'Don't be silly, Vaccha; it makes no sense for a Thatāgata neither to exist nor not exist, or both to exist and not exist'.[16]

Clearly, the *catuṣkoṭi* flies in the face of the PEM and PNC—so much so that Western commentators on the *catuṣkoṭi* have struggled to make sense of it.[17] However, modern mathematical logic has show exactly how to do so. In the second half of the 20th Century many logics, usually called 'non-classical' logics, were developed, with all the rigor that the mathematical techniques first applied to logic around the turn of the 20th Century provide. These logics take on board the possibility that statements may be neither true nor false and/or both true and false. (Logics of the first kind are now called *paracomplete*; logics of the second, *paraconsistent*.) Indeed, one very standard logic called *First Degree Entailment* (don't ask) is based on the four possibilities of the *catuṣkoṭi*. The four semantic values, t (true only), f (false only), b (both), and n (neither), are standardly depicted in a diagram

[16]Though the observant will note that the Buddha refuses to endorse any of the four possibilities. 'Why?', is an important question, and the matter was to have significant ramifications in later Buddhist thought (see Priest (2018)), but this is not relevant here.

[17]See Priest (2018), 2.4.

mathematicians call a Hasse diagram, which looks like this:



The four points of the *catuṣkoṭi* are manifest.[18]

Of course, the tools of modern logic were not on the agenda of Buddhists—or Aristotle—over 2000 years ago, any more than were the tools of contemporary neuro-science. But there is no reason why a Buddhist need reject them—quite the contrary. As both the Dalai Lama and Thich Nhat Hanh point out, Buddhism is about understanding the world in which we live, and it would be silly to suppose that we have learned nothing about such matters in the last 2,000 years.

6 Rebirth

And now it's time to address the elephant in the room: rebirth, the view that when people die, they are reborn.

Rebirth is an orthodox part of Indo-Tibetan Buddhism. It is also a central feature of some Chinese Buddhisms, such as Pure Land (*Jingtu Zong*, 淨土宗), but it is somewhat out of kilter with the more this-worldly tenor of Chinese philosophy, and plays no real role in *Chan* (禪, Jap: *Zen*), where the emphasis is entirely on the present. Though I know of no Zen texts where rebirth is rejected—other than as part of rejecting all views. Perhaps piety made this impossible.

Anyway, scientifically credible evidence for rebirth is, to put it mildly, scant.[19] It does not have to be like this. There could be many cases of the following kind. A person remembers doing something in a previous birth which nobody else knew about, and which is subsequently verified. For example, they might remember hiding a box in a certain place, which could then be found. True, the lack of evidence does not show that rebirth is false, but it is foolish to believe an empirical view for which credible evidence is

[18]Further on all these matters, see Priest (2018), ch. 2. See also Garfield (2019).

[19]Though some people claim to find some. See, e.g., Stevenson (1997). For a critique of evidence of this kind, see Edwards (1996).

wanting. As Hume put it, a wise person apportions their beliefs according to the evidence.[20]

The natural thought at this point is that rebirth is an inessential cultural accretion to Buddhism, simply taken over from orthodox Indian thought circa the 5th century BCE. New religious and philosophical views reject aspects of the ambient orthodoxy, but they always take over others.

And it is clear that there are such accretions to Buddhist thought. Many Buddhist texts refer to Mt Sumeru, a large strangely shaped mountain at the centre of the Earth. Few would now hold this to be other than an outdated bit of geography/cosmology. More importantly, as a religion, traditional Buddhism has been just a patriarchal as the other major world religions. All the Dalai Lamas have been men; all temple heads in Japan have been men. Some Buddhist texts claim that women cannot achieve enlightenment. (Women have to be reborn as men first.) And according to tradition, the Buddha himself refused to have women in his sangha (religious community). He relented when some of his followers pressed him on the matter but, even then, women had to be under the direct authority of some man.

Yet Buddhism itself provides no reason for this misogyny. Quite the contrary. We find the Buddha himself saying this. In the *Vāseṭṭha Sutta*, where the Buddha rejects the caste system, he says:[21]

> While in [various animal] births are differences, each having their own distinctive marks, among humanity such differences of species—no such marks are found. Neither in hair, nor in the head, not in the ears or eyes, neither found in mouth or nose, not in lips or brows. Neither in neck, nor shoulders found, not in belly or the back, neither in buttocks nor the breast, not in groin or sexual parts. Neither in hands nor in the feet, not in fingers or the nails, neither in knees nor in the thighs, not in their "colour", not in sound, here is no distinctive mark as in the many other sorts of birth. In human bodies as they are, such differences cannot be found: the only human differences are those in names alone.

The human condition and the way to change it are the same for all, regardless of caste and gender. The patriarchy of traditional Buddhism, then, is simply an unfortunate cultural accretion. And it is disappearing as Buddhism moves

[20] *Enquiry Concerning Human Understanding*, sec. 10, pt. 1.
[21] Suttacentral (2011).

into the West, where patriarchy is no longer acceptable—at least to the kind of person to which Buddhism tends to appeal.

One may naturally take the view in rebirth to be a similar cultural accretion, taken over from the ambient social culture. Notably, there are hardly any canonical texts which make a case for the truth of rebirth.[22]

Another aspect of orthodox Hindu thought taken over by Buddhism is that of *karma*. 'Karma' literally means *action*. And the doctrine of *karma* means that actions have consequences. This is a perfectly obvious part of common-sense (and clinical) psychology. If you go round being kind to people, people are more likely to be kind to you. If you go around being nasty to people, people are more likely to be nasty to you. And if you make a practice of being kind/nasty, you will turn yourself into a kind/nasty person. As Aristotle pointed out, we train ourselves into our virtues and vices.[23] Moreover, there is evidence to the effect that being kind makes people happier in themselves.[24] *Karma* is therefore perfectly acceptable to a scientifically-informed Buddhism.[25]

For Buddhists who believe in rebirth, however, one's *karma* determines the kind of rebirth one will have. Good *karma* means a fortunate rebirth: as a person who is able to do those things conducive to achieving enlightenment. Bad *karma* means a rebirth as a person who cannot do so (through poverty, disease, etc.), or even as an animal. Clearly, if one rejects rebirth, one must reject this aspect of *karma* too.

7 *Duḥkha and Upekṣā*

There is, however, a very obvious objection to the claim that the coherence of Buddhism does not require rebirth. To see what this is, we must return to the second mark of reality, *duḥkha*. The earliest teachings of the Buddha are recorded in *sūtras* such as the *Dharmachakrapravartana Sūtra*, and are known as the Four Noble Truths. The first of these is precisely that *duḥkha*

[22]The only one I know is a defence of rebirth by Dharmakīrti some 1,000 years after the Buddha. For an analysis of his argument, see Hayes (1993).

[23]*Nicomachean Ethics*, bk. 2, ch. 1.

[24]See, e.g., Cutler and Banerjee (2018).

[25]And given that people are changing ("being reborn") constantly, this makes it possible to "demythologise" the notions of karma of rebirth as about this life, if one is so inclined. See, further, Garfield (2022), pp. 174–179.

is a characteristic of the human condition.[26]

The standard translation of the word *duḥkha* is *suffering*, but its resonances are much wider than this. It connotes: suffering, pain, discontent, unsatisfactoriness, unhappiness, sorrow, affliction, anxiety, dissatisfaction, discomfort, anguish, stress, misery, frustration. All creatures experience illness, death, loss of possessions, body parts, loved ones, and so on, giving rise to unhappiness. The view is not to the effect that life is unremittingly miserable. Things certainly happen that make us happy; but they do not go on forever (*anitya*), and there will always be other events which cause unhappiness: illness and old age is a feature of every person's life (if they are lucky enough to live that long). And even the good things come with an edge. When they cease, we experience unhappiness. Moreover, at the back of one's mind there is often the insecurity of the loss of a good thing. (Think of jealousy in love, and rivalry at work). What's more, when we get what we want, we often do not find it fulfilling, as we thought it would. As for *anitya*, all this is a clear generalisation from what we experience of the world.

Because of the First Noble Truth, Buddhism is sometimes thought of as a pessimistic view. It is certainly a realistic view, which urges you not to put your head in the sand. But it is the very opposite of a pessimistic view. For the other three Noble Truths, tell us that you can do something to get rid of *duḥkha*—or at least minimise it. In particular, the Fourth Noble Truth (the Eightfold Noble Path), specifies a number of practices conducive to achieving this end, that is, attaining *nirvāṇa*—the extinction of *duḥkha.* These include having the right beliefs, intention and determination, living morally, practicing mindfulness.

Buddhism takes as a given that people don't like *duḥkha*, and that one should therefore act to get rid of it—both one's own and that of others: compassion (*karuṇā*) has always been integral to Buddhist ethics. That *duḥkha* is a bad thing is, I think, true, but not as obvious as one might think. However let us not go into this here.[27] The point is that, thus far, Buddhism is about eliminating a negative. And if matters are left at that, there is a very obvious way to achieve this: commit suicide. And it is an act of compassion to go around killing others. That is absurd.

It is here that rebirth is relevant. If there is rebirth, such acts are pointless.

[26]Further on the Four Noble Truths, see Carpenter (2014), ch. 1, and Siderits (2007), ch. 2.

[27]It is discussed in Priest (2017).

Someone who dies is going to be reborn and go through the whole thing again, and again, and again, till eventually they do what is necessary to attain *nirvāṇa*. There is no shortcut to undertaking the discipline and practices of the Fourth Noble Truth.

If one does not subscribe to rebirth, this reply is not available. The Buddhist goal, then, cannot simply be about the elimination of a negative; it must also be the accentuation of a positive. And indeed, the Buddhist tradition is quite explicit about what this is. *Duḥkha* has a flip-side. In Sanskrit, this is *upekṣā* (Pāli: *upekkha*). Again, this is a difficult word to translate, but the closest translation is something like *peace of mind*.[28] This is equanimity in the face of the slings and arrows of (sometimes not so) outrageous fortune that life launches towards us. One Buddhist thinker describes it this way:[29]

> The real meaning of upekkha is equanimity, not indifference in the sense of unconcern for others. As a spiritual virtue, upekkha means equanimity in the face of the fluctuations of worldly fortune. It is evenness of mind, unshakeable freedom of mind, a state of inner equipoise that cannot be upset by gain and loss, honor and dishonor, praise and blame, pleasure and pain. Upekkha is freedom from all points of self-reference; it is indifference only to the demands of the ego-self with its craving for pleasure and position, not to the well-being of one's fellow human beings. True equanimity is the pinnacle of the four social attitudes that the Buddhist texts call the 'divine abodes': boundless loving-kindness, compassion, altruistic joy, and equanimity. The last does not override and negate the preceding three, but perfects and consummates them.

Peace of mind is a good in itself, as one knows when one experiences it. But it is not just a good in itself. The other good things in life, like the joys of music one loves, the beauty of a sunset, the happiness one gets from helping others, are all greater if one is not disturbed by troubled thoughts and emotions. Buddhism, as Jay Garfield once said to me, does not free you *from* life, but *for* life.

[28] One can find a notion in the same ball park in Hellenistic philosophies, such as Stoicism and Epicurianism. In Greek it was called *ataraxia*; in Latin it was called *tranqullitas*. See Irwin (1989), chs. 8, 9.

[29] Bodhi (1998).

Let me say a final word about the attainment of *nirvāṇa*—enlightenment. If there is no rebirth, this implies that people—maybe most people—will never realise this—even if they practice appropriately. However, this does not deprive Buddhist practice of a point. Ideals may not be achievable, but it is still the case that the closer one can get to them the better. *Duḥkha* is bad, and *upekṣā* is good. The less there is of the former, and the more there is of the latter, the better.[30] (I note that as far as I know, there are no texts where the Buddha is reported as saying that all people *will* achieve enlightenment.[31])

8 Conclusion: Against Essentialism

It cannot be denied that there are those who would contest what I have said about rebirth. There are certainly Buddhists who claim that without an endorsement of rebirth a view is not *real* Buddhism.[32] And we may agree that traditionally most Buddhists—including the Buddha—have endorsed rebirth. That, however, hardly settles the matter (even according to the Buddha's own words).

As I noted in the introduction to this piece, Buddhism has moved through different cultures, morphing in the process each time it does so. It is now moving into the West, where new forms are developing—sometimes referred to as 'Buddhist Modernisms'. Such developments render unavoidable the question of the relationship between Buddhism and science, including the question of whether rebirth is essential to Buddhism.[33]

However, it seems to me, the shape-shifting history of Buddhism, makes essentialist questions of this kind misplaced. Buddhism is what it was, is, and will be. The emphasis on change in Buddhist philosophy, should make this point easy to grasp! If, indeed, all things are without self, that is, essence—as articulated most systematically by Madhyamaka—then this is true of Buddhism itself. If you want a label for the relationship between

[30] See, further, Garfield (2022), pp. 113–115.

[31] In those forms of Buddhism where Buddha Nature plays an important role, it is standardly held that all people are *already* enlightened—though they may not realise this. But even here, I know of no text which claims that all people *will* (as opposed to *can*) realise it.

[32] See, e.g., Thurman and Bachelor (nd), Bodhi (2005).

[33] On these matters, see McMahan (2008), Lopez (2008), Thompson (2020). See also the discussion of Modernism vs Traditionalism in Garfield (2022), p. 182 ff.

the different Buddhisms in the causal sequence of its development, perhaps the Wittgensteinian one of *family resemblance* best fits the bill.[34] In this essay I have presented a certain picture of Buddhism and its relationship to science—and as I have argued, a coherent one. The question of whether this is *real* Buddhism, strikes me as having no real sense.[35]

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