

Thich Nhat Hanh, Fear of Death and the Consolations of Science¹

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There is much scientific interest in Buddhist views about emotions and their regulation. There is also mounting scrutiny of popular claims that Buddhism is a science, is compatible with science or is proven true by science (Thompson, 2020). This article contributes to this discussion by critically examining Thich Nhat Hanh's attempt to interface Buddhist views about fear with science. Thich Nhat Hanh (2014) claims that (1) all fears are rooted in a fundamental fear of annihilation, which arises at birth and is adaptively inherited from our ancestors (at least in part). He submits that this view is supported by science. He also argues that (2) this fear is undermined and thereby overcome by the Buddha's teaching of no-self and basic laws in physics. This article first critically engages (2), and argues that the appeal to physics is misapplied and that the Buddha's teaching is not necessarily consoling. It then positively engages (1), charitably suggesting ways it might align with views in mainstream science and philosophy of mind, as well as central ideas in Yogācāra Buddhist philosophy of mind. It goes on to argue, however, that problems and inconsistencies emerge when the details of Thich Nhat Hanh's view are scrutinised. This is not to deny the possibility of productive dialogue between Buddhist views on fear and science. Rather, it identifies key issues that would need to be addressed and illustrates the need for more critical reflection.

Introduction

The Buddhist-inspired mindfulness movement has had a massive impact on global culture and the health sciences. There is a growing body of evidence that mindfulness-based therapies, such as MBSR (Kabat-Zinn, 2014), and MBCT (Segal, Williams & Teasedale, 2002) are effective for maintaining mental health and emotional resilience, for restoring well-being, and for helping to reduce depressive relapse and anxiety (Cayoun, Francis, & Shires, 2018). These results have inspired growing scientific interest into the Buddhist philosophies from which mindfulness was originally extracted. Relevant issues include whether

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secularised forms of mindfulness share the key presuppositions and intended outcomes of more traditional forms, as well as whether the Buddhist tradition contains additional insights about emotions and their regulation that might be of relevance to science.

Until recently, this emerging dialogue between Buddhism and science has been uncritically celebrated. Both sides of the conversation have since been subject to strong critique. In the sciences, clinicians, researchers and scientists have been accused of “overstat[ing] the benefits and efficacy of mindfulness interventions while downplaying a range of methodological weaknesses” (Purser, Forbes & Burke, 2016). This has led to increased scrutiny of mindfulness research studies (Van Dam et.al., 2018, Van Dam & Galante, 2020). In the humanities, Evan Thompson (2020) has scathingly critiqued popular claims that Buddhism is a science or is compatible with science or that science can prove Buddhism true. These claims, he argues, are “philosophically and scientifically indefensible” (p.188) and to be rejected.² Thompson does not seek to undermine *all* attempts at creating dialogue between Buddhism and science. He identifies Buddhist Modernism as his target and argues that a more cosmopolitan approach to interdisciplinary dialogue, one that includes more global traditions than just Buddhism and that allows each to challenge the others assumptions, positions, and arguments (including those of mainstream science), has transformative potential and is well worth undertaking. He nevertheless challenges all concerned to raise their level of critical engagement, and to scrutinise all versions of the claim that Buddhism is legitimised by science.

In the spirit of Thompson’s critique, this paper will turn a critical eye on Thich Nhat Hanh’s Buddhist conception of fear and his attempt to interface with mainstream science. Understanding fear is immensely important to the health sciences. It is estimated that a

² More strongly, he claims that they are “biased” (p.104), “confused” (p.18), “dubious” (p.22), “specious” (p.28), “nonsensical” (p.45) “superficial” (p.120), “facile” (p.88), and “misguided” (p.121). The arguments advanced in its support, he contends, are based on limited concepts (p.36), erroneous ideas (p.64), involve conflation (p.20), and turn on distinctions that are impossible to maintain (p.49). For discussion, see Finnigan (2022)

third of all U.S. adults experience a fear and anxiety disorder at some time in their lives (Bandelow & Michaelis, 2015). Inspired by the mindfulness movement, there is growing interest in what insights Buddhism might have to offer about fear. Thich Nhat Hanh is one of few contemporary figures to elaborate and defend a Buddhist conception of fear and its regulation. He is extremely influential, second only to the Dalai Lama in global prominence. He is also (so far) the only one to explicitly relate Buddhist views about fear to mainstream science, peppering his writings with such remarks as “even scientists say”, (2014: 24), or “it is a scientific truth” (p.34) or, if a scientist were to think otherwise they would “not be a very good scientist” (p.50). While these remarks admit of interpretation, I will take them at face value and argue that Thich Nhat Hanh’s attempt to interface Buddhism and science is problematic in ways that may impede productive dialogue.

Before proceeding, two qualifying notes are in order. First, as with Thompson’s critique of Buddhist Modernism, the argument of this paper is not meant to undermine the possibility of productive dialogue between Buddhism and science about fear, or about the emotions and their regulation, or about the nature of mind. There is a lot of exciting work currently being done in this space, and much potential for interdisciplinary engagement. The purpose of this paper is to echo Thompson’s call for more critical reflection using a very well established Buddhist figure, who is rarely intellectually challenged, as its example. Second, although this paper will critique Thich Nhat Hanh’s appeals to science to support his conception of fear, this critique is not meant to detract from the overall value of engaging with Thich Nhat Hanh’s views, or from the positive psychological impact his writings have had on many people’s lives, or from the massive political impact he’s made on the global peace movement, and which led him to be nominated for a Nobel Peace Prize. These positives can all be respectfully acknowledged, however, without silencing intellectual critique.

Thich Nhat Hanh's Buddhist conception of fear

Thich Nhat Hanh's writings about fear (2003, 2012, 2014), share a common argument. I will focus on claims made in his book *Fear: Essential Wisdom for Getting Through The Storm* (2014). Its central claim is that according to the Buddha, "our greatest fear is that when we die, we will become nothing" (p.41). 'Great' can mean several things. It can mean that fear of becoming nothing is (e.g.) our most intense fear, our most frequent fear, or even our most debilitating fear. Thich Nhat Hanh means that it is the explanatory basis of all our fears; fear of becoming nothing when we die or annihilation is the "fundamental" cause, the "root" or "source" of everything we fear. This fundamental or "original fear" of annihilation, he argues, is inborn in us together with a fundamental desire to survive. "Every one of the fears and desires that you have today", he writes, "is a continuation of this original fear and desire." (p.10). Thich Nhat Hanh goes onto argue that this original fear is inherited (at least in part) from our ancestors, and he compares this to how the capacities for growth in a plum tree result from inherited adaptation (p.24). Thich Nhat Hanh then turns to offer consolation for this original fear by arguing that it is shown to be irrational and thereby undermined and overcome by the Buddha's teaching of no-self and the basic laws of physics.

My response to this argument begins by engaging the proposed consolations. I argue that the appeal to physics is misapplied and that the relevant teachings of the Buddha do not necessarily console fear of death. I then turn to positively engage Thich Nhat Hanh's claim that all fears are rooted in an original fear of not surviving death and that this fear is adaptively inherited. I will charitably suggest that elements of this view might broadly align with mainstream views in science and philosophy of mind and, to that extent, have scientific credibility. The view also presupposes the framework of Abhidharma and Yogācāra philosophy of mind, and I suggest how key ideas from this framework might also intersect with philosophy and science. I go onto argue, however, that problems emerge when we scrutinise the details. While I don't think these problems show that Thich Nhat Hanh's

conception of fear is wrong or irrelevant to science or that there is nothing to be gained from interdisciplinary dialogue between Buddhist views on fear and science, I will conclude that this discussion identifies some of the key issues that would need to be addressed and illustrates the need for an increased level of sophistication in critical engagement.

The consolations of physics

According to Thich Nhat Hanh, all our fears are rooted in a fundamental or original fear of becoming nothing when we die. He sometimes expresses this as fear of annihilation, or fear that we will be annihilated when we die, and treats them as equivalent. I will too. I will sometimes also express the view as fear of not surviving death, but this expression has a broader sense than those used by Thich Nhat Hanh. I will bracket, for now, questions about the nature and fundamentality of this ‘original’ fear and start by addressing the consolations that Thich Nhat Hanh derives from the Buddha’s teachings and science.

Thich Nhat Hanh understands the Buddha’s teaching to offer a cognitive strategy for removing the original fear of becoming nothing when we die by revealing it to be irrational, underpinned by ignorance or false views. “The Buddha taught that when we call up and can get in touch with the truth” our “fear will cease.” (p.31). “When we understand” the source of our mistake we will be “liberated from fear” (p.59).

Thich Nhat Hanh discusses two main kinds of mistake that he thinks underpins this fear. The first concerns the idea of ‘annihilation’ or of ‘becoming nothing’. He thinks this idea violates a basic law of physics, and so is irrational to fear. He writes: “If you’re a scientist and you think that after the disintegration of this body you are no longer there – you become nothing, you pass from being to nonbeing – then you are not a very good scientist” (p.50). He analogously reasons, “the cloud cannot become nothing. It is possible for a cloud to become rain or snow or hail. But it’s not possible for a cloud to become nothing. That’s why

the view of annihilationism is a wrong view.” (p.50) He concludes “When we understand that we can't be destroyed, we are liberated from fear” (p.59)

Thich Nhat Hanh seems to have in mind the law of conservation of mass-energy. It holds that the energy of a closed system must remain constant – it can neither increase nor decrease, only convert from one form to another. This law is widely held in physics. Newtonian physics, relativistic physics, and arguably quantum physics all assume that the universe is a closed system that adheres to (some version of) this law. Einstein contributes the idea that mass and energy are equivalent; all objects with mass have a corresponding amount of energy. It follows that objects with mass can neither be created from nothing nor destroyed into nothing, but merely rearranged in space or changed in form. Thich Nhat Hanh is thus right to say that existing things with mass-energy (clouds, ourselves) cannot disintegrate into nothing. If we fear this possibility, that fear is irrational.

There are (at least) three problems with Thich Nhat Hanh's argument, however. First, he is no doubt right to claim that people can and do fear becoming nothing when they die (setting aside for now the issue of fundamentality). People fear all kinds of things, and since we all die but have limited epistemic access to what this amounts to, it is likely that *many* people fear this event. It is not obvious, however, that it need be understood as fear of disintegrating from something into nothing. A more plausible construal might be as fear that we, ourselves, the subjects of our own conscious experiences, won't survive death. We can fear this for many reasons. We might fear it because we would thereby lose intimacy with those we love, irrevocably, as well as contact with the communities with which we socially identify. Thich Nhat Hanh recognises that we can fear death for these reasons. He writes: “I am of the nature to die, I cannot escape death. All that is dear to me, and everyone I love, are of the nature of change. There is no way to escape being separated from them.” (p.30). The possibility of such separation and loss are all consistent with the basic laws of physics, and so reference to physics does not prove the irrationality of this fear.

Second, it is implausible to suppose that everyone who fears annihilation misunderstands the basic laws of physics. Thich Nhat Hanh thinks this fear is the root cause of all fear; every fear we experience is explained by the original fear of annihilation and desire to survive. If to fear annihilation is to misunderstand the basic laws of physics, it would follow that every individual that experiences fear misunderstands these laws. But physicists presumably understand the basic laws of physics, and they presumably experience fear. In Thich Nhat Hanh's defence, one might argue for a distinction between (a) knowing a fact, and (b) internalising that fact in a way that influences how one orients to the world.³ Physicists who fear annihilation, one might argue, might well understand their science theoretically but have not internalised its deeper meaning and practical significance for how they live their lives. While this distinction certainly makes sense in some contexts, it sounds vaguely question-begging here, and too sweeping a generalisation. It also goes beyond the cognitive strategy Thich Nhat Hanh attributes to the Buddha. He writes: "The Buddha taught that when we call up and get in touch with the truth" then our "fear will cease" (p.31). It seems false to claim that physicists who fear annihilation fail to grasp the truth of their science.

Third, the law of conservation of mass-energy is not necessarily consoling in the face of death. Thich Nhat Hanh's remarks about this law come in the context of narrating the grief he experienced at his mother's death and his consoling realisation that he could not have lost her, she could not have become nothing, she must continue to exist in other forms. He claims to have thenceforth recognised her presence when he felt the breeze on his face, the earth under his feet, she "was the moonlight caressing [him] as she had done so often, very gentle, very sweet." (p.42). He then advises: "If you can stop and look deeply, you will recognise your beloved manifesting again and again in many forms" (p.42). "It is entirely

³ Thanks to Bryce Huebner for this way of putting the point.

possible to live happily and die peacefully. We do this by seeing that we continue our manifestation in other forms.” (p.69).

Now, I admit to finding these reflections quite beautiful. They also assume the concept of ‘interbeing’, which Thich Nhat Hanh elaborates elsewhere (e.g., 1999). This concept is derived from Zen Buddhism, and takes support from the Buddha’s teaching of dependent arising. In the Nikāya suttas, dependent arising is articulated as the view that all things depend on causes and conditions for their existence. In the Zen Buddhist context, it is often taken as the claim that all things are contained in, and reflect, all other things (Ling Lim 2019: 4; Jackson 2022: 129). I grant that the idea of one’s beloved continuing to exist in the breeze, in the moonlight, and in all other existing things can be consoling in the face of their death (and goodness knows many of us could do with some consolation in view of the prospect of losing all contact with those we love). But this consolation is not entailed by the law of conservation of mass-energy. This law merely says that mass does not disappear but converts into other forms. It would be consistent to claim that one’s beloved converts into a corpse, ashes and soil upon death, and there is nothing consoling about that.

In this context, it is worth revisiting the claim that some people fear annihilation in the sense that they fear that they, themselves, the subject of their experiences, won’t survive death. Into what form does *consciousness* convert when a person dies? If we assume that consciousness is epiphenomenal, then it has no mass-energy and so the total mass-energy in the universe is not altered when a person dies. While this might be the simplest position from the point of view of physics it denies that mental events have any causal impact on physical events. Many find this implication difficult to accept, if not incoherent. In response, some philosophers and scientists argue that consciousness involves a form of *non-physical* energy that counts towards the total energy of the universe in ways yet to be measured (Vicente, 2006; Gibb, 2010, 2015). This idea is controversial but would be arguably consistent with the law of conservation of energy if such energy could be shown to exist (but this is a

big if; see Papineau 2001).⁴ This idea might bring some consolation, however, if one thought that the consciousness of one's beloved continued in some way after their death.

The Buddha's teaching of no-self and the consolations of karma

Historical Buddhists *did* think that consciousness continues in some way after death, for reasons related to the Buddha's rejection of annihilationism or the view that we are annihilated when we die. The Buddha did not reject this idea because it violated the basic laws of physics (which would be anachronistic) but because it assumes that there is a self that *could* be annihilated. According to the Buddha, there is no self. What he thereby affirms and denies is a matter of massive historical and contemporary dispute. Most accept, however, that at the very least he denies that there is a permanent and unchanging substance that grounds the synchronic and diachronic persistence of our personal identity across lives in the face of physical and psychological change. The terms *atta* (P.) or *ātman* (Skt.) denote this conception of self.⁵ The Buddha is taken to have proposed, instead, a positive analysis of persons as causally related configurations of physical and psychological elements. Some of these causal relations were assumed to transcend the boundaries of a natural lifespan. The reason for this assumption is tied to the Buddha's commitment to the idea of karmic rebirth. It is worth going over the detail as this idea is relevant to the second kind of mistake Thich Nhat Hanh thinks underpins our original fear.

⁴ Others argue that consciousness involves a form of *physical* energy, on a sufficiently broad interpretation of the meaning of the physical (such as what satisfies a purely mathematical description of reality; see Goff 2019). The proposal is not irrelevant. Buddhists traditionally distinguished bodily physical matter (*rūpa*) from mental states and events (feelings, dispositional tendencies, cognitive states, consciousness). However, *rūpa* sometimes refers to the phenomenal appearance of physical form and so, when used in this sense, counts as mental. Ganeri (2012) translates *rūpa* to mean phenomenal appearance. I think that this regimentation of the term is too restrictive and ignores other and more prominently materialistic senses. It is nevertheless consistent with idealist readings of the Buddha's teachings associated with Yogācāra Buddhism (see Finnigan 2017).

⁵ In what follows I will only cite the Sanskrit version of these Buddhist concepts.

The five aggregate analysis of persons

The Buddha analyses persons as configurations of five types of token elements, known as the Five Aggregates. They are traditionally understood to be: (1) bodily physical form (*rūpa*), (2) feeling (*vedanā*), (3) cognitions or cognitive factors that involve classification and recognition, such as perception, thought, and memory (*saṃjñā*), (4) volitional factors that causally influence actions of body, speech and mind, such as habits, intentions and plans (*saṃskāra*), and (5) consciousness (*viññāna*). This analysis is assumed to be exhaustive; there is nothing else that constitutes a person (Siderits, 2007). The token elements in these person-configurations are said to be causally related but the configuration, itself, is not considered to be a real substance with causal properties.⁶ There is no enduring substance that unifies these elements as constituents of ‘me’, whether at a time or across time. Each token element is also said to be impermanent in the sense that none persists unchanging across lifetimes or a natural lifespan (or even, on some accounts, across moments of time). Each is also dependently arisen in the sense that each depends on some other token element/s for its existence. According to the Buddha, what is impermanent and subject to change is not fit to be regarded “This is mine, this I am, this is myself” (MN22.26). Since, in his view, everything that exists is impermanent, if one accepts this argument it follows that no element in this five aggregate analysis is fit to be regarded as oneself. There is thus no self. Whether or not some other sense of self can survive this critique, however, is a matter of dispute.

⁶ There is some disagreement amongst historical Buddhist philosophers on this point. According to tradition, after the Buddha’s death the early Buddhist community subdivided into eighteen distinct Abhidharma schools and lineages, partly in response to doctrinal disputes about how best to interpret the Buddha’s teaching (disputes also concerned which rules monks should follow). The most prominent of these Abhidharma schools were the Theravāda, Sarvāstivāda, Mahāsaṃghika, Pudgalavāda, and Sautrāntika. The Pudgalavāda argued that while there is no self (*ātman*) there exists a person (*pudgala*) that is neither separate to nor identical with the five-aggregates but somehow bears them. Some interpret this as the view that the causal continuity of the five-aggregates has some kind of ontological standing. This view was heavily and influentially critiqued by Sautrāntika Buddhists. See Westerhoff (2018).

Karmic rebirth

Given his teaching of no-self, the Buddha was accused not only of annihilationism, but also moral nihilism.⁷ If there are no selves, it would seem that there are no agents that could be held morally responsible for ‘their’ actions. If actions are those happenings in the world performed by agents, it would seem that there are no actions. And if there are no agents and no actions, then morality seems to lose application. The Buddha, and later Buddhist philosophers, firmly deny this implication. Their denial assumes that morality is governed by the laws of karma, which range over a cosmology of multiple realms of existence into which sentient beings are born, die, and are reborn in a continuous cycle. Good actions generate karmic merit and bad actions generate karmic demerit. An agent’s accumulated karmic debt determines the kind of existence they will have in their next life, and causes some auspicious and inauspicious events to occur in that life. It also partially explains the nature and fact of the agent’s present existence as well as some of the events that occur in this life.

The idea of karmic rebirth was widely accepted in classical India, and endorsed by the Buddha and subsequent Buddhist philosophers. But how is karmic rebirth possible if there are no selves? *Who* is held karmically responsible for their conduct and experiences its fruit? Buddhist philosophers offer different answers to these questions. Most contend, however, that the laws of karma operate over the causally related configurations of psycho-physical elements into which the Buddha analysed persons (specifically targeting intentions, *cetanā*, which is a kind of volitional factor). While there is no substantial self that is reincarnated after death, the process of dependently arisen elements into which we are properly analysable *was* said to continue.

How this occurs is of much interest. The Buddha seems to have thought that a subtle form of consciousness causally transmits across lives; it is what enlivens an embryo and

⁷ This paragraph derives from Finnigan (2022).

sparks it into sentience. He also appeared to assume that the volitional factors transmit across lives, since they include the accumulated karmic debt that both condition the next mode of existence and the occurrence of some events in that life (Jackson, 2022; Smith, 2020; Waldron, 2006).

Dualism and the basic laws of physics

With all this in view, Buddhist philosophers treat the Buddha as having assumed some form of dualism (Lopez 2010). In contemporary terms, he seems not to have adhered to the principle of the causal closure of the physical (CCP), according to which every physical event (viz. every caused event) has sufficient physical causes. The doctrine of karmic rebirth assumes that events can have non-physical causes. Many philosophers assume that CCP is entailed by the law of conservation of mass-energy. To deny or fail to adhere to CCP is thus taken to violate this law.⁸ It might seem to follow that the idea of karmic rebirth violates this basic law of physics.

For reasons suggested earlier, the laws of conservation might not entail CCP if the possibility of *non-physical* energy can be established (or if the definition of physical energy were plausibly broadened to include its possibility). But these possibilities have yet to be accepted and established by the methods of *current* science. Since Thich Nhat Hanh seems to be taking current science as his bench mark, with particular reference to the physical laws of conservation, one might suppose he would either deny the idea of karmic rebirth or not observe this part of the Buddha's teaching. He *does* observe it, however. He writes: "our karma, the fruits of our actions, always follows us. We can never escape it [...] We have only one foundation and that is our karma. We have no other ground. We will receive the fruits of any act we have done, whether wholesome or unwholesome." (p.37) He also remarks "we

⁸ See, for instance, Dennett who writes: "the principle of the conservation of energy is apparently violated by dualism. This confrontation between quite standard physics and dualism has been endlessly discussed since Descartes' own day, and is widely regarded as the inescapable and fatal flaw of dualism" (1991, 35) See also Churchland (1994, 20), Flanagan (1991, 21), Fodor (1994, 25).

need to free ourselves from the ideas that we are just our bodies, which die. When we understand that we are more than our physical bodies, that we didn't come from nothingness and will not disappear into nothingness, we are liberated from fear." (p.4)

Thich Nhat Hanh takes the Buddha to have taught that "there is no birth and no death... When we understand that we can't be destroyed we're liberated from fear." (p.41). We earlier discussed one meaning he gives to this claim; namely, that we do not disappear into nothing but continue in some other form. Reference to karma gives a second sense to this claim; that we "continue our manifestation" (p.69) in a new life beyond the present. These two claims are inconsistent from the point of view of *current* science. Thich Nhat Hanh can't have it both ways. He cannot both treat current science as the standard for measuring truth and assert claims as true that do not meet that standard. While he can certainly be revisionary, he might even deny some accepted scientific facts and propose a Buddhist alternative, he cannot be self-contradictory.

The idea of karmic rebirth is not necessarily consoling

The idea of karmic rebirth is not necessarily consoling with respect to fear of death. Buddhist philosophers go to great lengths to emphasise how frightening the idea of karmic rebirth can and should be (Finnigan 2021). This is because it includes the prospect of being reborn into one of a vast number of hell realms, each with their own distinct form of excruciating suffering. Reflection on this fact is central to the distinctive Buddhist practice of 'mindfulness of death' (*marāṇasati*), prominent forms of which involve approaching and meditating on skeletons and corpses in various stages of decay. The palpable realisation that these objects represent a threshold beyond which one is likely to experience aeons of excruciating pain is meant to arouse a sense of urgency in Buddhist contemplative practice since this is understood to be the only way to prevent it.

Buddhist did not always treat the prospect of karmic rebirth as frightening. Perceived capacities for agential control are important modulators for fear. Arguably, the more one

perceives oneself to be able to control something (prevent, block, avoid, escape it), the less likely one is to fear it (Finnigan 2019). Reflecting on the fact that our karmic rebirth is determined by what we do might help regulate our fear of death in view of its prospect. This seems to be what the Buddha has in mind when he reassures an individual in his early teachings to “not be afraid” of death because, if he continues to engage in Buddhist practice, his “demise [viz. rebirth] will not be a bad one” (SN 5.370-1). It is also supposed possible to be reborn into a Buddhist heaven or god realm and experience aeons of bliss before returning to the cycle of rebirth. This reassurance is limited, however, since only a Buddha is considered to have epistemic access to the operations of karma and even the slightest moral infraction tends to be viewed as conditioning significant future suffering. From an ordinary epistemic position, it is unknown how karmic debt will fruition in the next life. To the extent that karmic suffering remains a prospect, cognitive reflection on karma will not “liberate us” from fear of death.

Original fear: aligning Buddhism and science

I have so far argued that the consolations Thich Nhat Hanh draws from physics and the Buddha’s teaching are unconvincing. What about the target of these consolations, the original fear of becoming nothing when we die? There are several aspects to Thich Nhat Hanh’s conception of original fear. In this section I will give reasons to think that some aspects of this view, when stated generally, align with mainstream views in science, are well-established in Abhidharma and Yogācāra Buddhist philosophies of mind, and have contemporary defenders in mainstream philosophy.⁹ I will go onto argue, however, that problems emerge when we scrutinise the details.

⁹ Abhidharma Buddhism is the first tradition of Buddhist philosophy to emerge after the Buddha’s death. It refers to a cluster of schools (traditionally eighteen) that tried to explicate and systematize the Buddha’s teaching about the nature of mind and reality into a unified and comprehensive theory. Yogācāra emerged

Stated generally, Thich Nhat Hanh maintains that an original fear of becoming nothing when we die is (a) inborn in us, together with a fundamental desire to survive, (b) adaptively inherited from our ancestors (at least in part), and is (c) the explanatory basis of everything else we fear. Versions of this combination of views are relatively mainstream. In his Pulitzer Prize winning book, cultural anthropologist Ernest Becker (2011) defends the thesis that “the fear of death is a universal in the human condition”, is “a mainspring of human activity” (p.xvii) and “must be present behind all our normal functioning in order for the organism to be armed towards self-preservation.” (p.16). Many mainstream emotion theorists also accept that fear has an adaptive function for the survival of (at least some) biological organisms which can be explained by evolutionary biology; that is, it has this function for ‘us’ (at least) because those of our common ancestors that by chance innovated the capacity for fear more successfully survived to reproduce than those that did not. This is not assumed to be unique to fear; many emotions are thought to function adaptively for survival. Fear does this, it is argued, by motivating actions that avert threats to our bodily or psychological integrity and/or readying our body to perform such aversive action. Those who defend this view do not consider fear to always function adaptively, of course. But maladaptive forms of fear, fear disorders, tend to be defined as departing from this characteristic (normal or typical) function rather than undermining the idea that it has a functional role. It is important to note, however, that their being mainstream does not mean these ideas about fear are uncontested. Each is subject to contemporary debate. I will not contest them here but charitably grant that they lend Thich Nhat Hanh’s view *prima facie* scientific credibility.

Thich Nhat Hanh also assumes that original fear has properties which are both well-established in Abhidharma and Yogācāra Buddhist philosophies of mind and have

from this tradition and innovated several important ideas to resolve problems with the Abhidharma analysis. Thich Nhat Hanh either assumes or explicitly refers to concepts from both.

contemporary defenders in mainstream philosophy. He assumes, for instance, that original fear is a mental state with a specific intentional content; we are afraid *that* we will not survive death, that we will be annihilated, “*that* when we die we will become nothing” (p.4, my italics). The idea that fear is an intentional state broadly aligns with one of the ways the Buddha discussed the nature of mind. The concept of consciousness or mind (*viññāna*) has several senses in the Buddha’s early teachings (Waldron, 2006). At least one involves awareness of objects. Abhidharma Buddhists align this sense of consciousness or mind with the concept *citta* and argue that all mental states or events are intentional in the sense that they are modes of awareness of objects (AKBh 1.2.3:189; ABS 1.1.1:8-9; Dreyfus & Thompson, 2007). Fear is a mental state or event on this analysis and so is an intentional state. This idea is also widely accepted in mainstream philosophy of emotion. How best to explain this assumed intentional property of emotions, fear included, is one of the central debates in the field.

Thich Nhat Hanh maintains that original fear is generated by certain causes and conditions; it arises, he claims, in response to our first experience of threat to our existence (at least in part) and is (perhaps) conditioned by a desire to survive.¹⁰ It follows that original fear is inborn in us not in the sense of being innate but in the sense of existing from birth (or arising shortly thereafter). “We were born, and with that birth, our fear was born along with the desire to survive.” (p.7). This characterisation of how original fear arises might seem to undermine the assumption of universality since it introduces some contingency. But Thich Nhat Hanh appears to think it arises in all of us because we all face the same causal nexus of threats at the time of birth. They include feeling cold and hungry for the first time, the need to breathe on our own, as well as threats posed by our own developmental limitations; “we had legs but could not walk, we had hands but could not grasp anything. We had to figure

¹⁰ I will return to discuss these parenthetical qualifications

out how to get someone else to protect us, to take care of us, and ensure our survival.” (p.8). If we set aside the issue of what specific causes and conditions might generate this specific kind of fear, the basic idea that fear is a causally conditioned state fits within the broad framework of the Buddha’s teaching of dependent arising; that all existing things depend on causes and conditions for their existence. The Buddha included mental events in this analysis, and since fear is a mental event, the analysis extends to fear. That fear is a causally conditioned state seems also to fit within the broadly physicalist assumptions of mainstream science (although the details diverge).

Thich Nhat Hanh characterises original fear as the explanatory basis for all subsequent fears. “If we practice looking deeply” he argues, we will see that every one of the fears we have today “is the result of the original fear from the time we were newborns, helpless and unable to do anything for ourselves.” (p.9). A similar view is echoed in the writings of Becker, who draws on post-psychoanalytic theory to contend that a universal fear of death causally influences our affective attitudes and behavioural responses without presenting itself in normal functioning. He claims that our fear of death is “repressed” akin to the way memories of traumatic events can causally influence our experiences and responses without themselves being ‘present’ in conscious awareness. While Thich Nhat Hanh does not use the term ‘repression’, he claims that “we deny our fear away ...we try to ignore our fear, but it is still there.” (p.1) If we look deeply, he writes, we will see that whatever we fear “is the result of the original fear from the time we were newborns, helpless and unable to do anything for ourselves.” (p.9) He goes onto argue that all fear can be removed if we address the underlying trauma that conditions it. “When we recognise that we have a habit of replaying old events and reacting to new events as if they were old ones” we can “tell the suffering, wounded child inside us that she doesn’t have to suffer anymore [...] ‘We have grown up. We no longer need to be afraid. We are no longer vulnerable. We are no longer fragile. We don’t have to be afraid anymore’.” (p.18) Thich Nhat Hanh appears

to treat those who experience fear (i.e., most human beings) as like those who suffer from posttraumatic stress disorder; everything they (we) fear is a mistaken projection from the original fear generated by the trauma they (we) experienced at the time of birth when their (our) existence was first threatened.

We might well question whether it makes sense to think that all fears are causally related to fear of death. It might be tempting to suppose so if we think that fear has an adaptive function for survival, but the entailment is not so neat. We might also question whether it is reasonable to suppose that fear of death originates in all of us at the time of birth. Setting those issues aside, the basic idea that fear and other mental states can have a causal influence on what arises in conscious awareness without itself arising or being present in conscious awareness is often seen as a key Buddhist insight about the nature of mind. To take an example, the Buddha identifies craving (*trṣṇā*) and attachment (*upādāna*) as central causes of suffering. The causal influence of these states, particularly attachment to ourselves and what we consider as ‘mine’, is not assumed to be transparent. Deep reflection and analysis (meditation) are said to be required to identify the various ways in which these states causally influence our feelings and behavioural responses. Some Buddhists analysed this lack of transparency in terms of a distinction between consciously occurrent (*pariyavasthāna*) and latent (*anuśaya*) mental events or states. While Buddhists debate the details of this distinction (Smith, 2019), it was widely held that both occurrent and latent mental states are causally efficacious; the occurrence of a mental event in conscious awareness can cause other occurrent mental events to arise, and a latent mental event can causally condition the arising of occurrent mental events in conscious awareness. Some version of this distinction between occurrent and latent mental states is also common in mainstream philosophy of mind, particularly in discussions of belief (Schwitzgebel 2021).

Original fear: problems with the details

I have given reasons to think that several aspects of Thich Nhat Hanh's conception of fear, when stated generally, align with views in mainstream science, philosophy, and Buddhist philosophies of mind. I will now argue that Thich Nhat Hanh's view is shown to be problematic when the details are brought into focus.

The co-arising of original fear and the desire to survive

As mentioned, Thich Nhat Hanh claims that original fear arises in response to our first experience of threat to our existence (at least in part) and is (perhaps) conditioned by a desire to survive. I will now address the parenthetical qualifications, starting with the relation of fear and desire. Thich Nhat Hanh claims that fear of becoming nothing when we die and the desire to survive co-arise at the time of birth, but he doesn't analyse their relation. "We were born", he writes, "and with that birth our fear was born along with the desire to survive. This is original desire" (p.7) It seems, however, that we wouldn't fear death unless we desired not to die, which implies a relation of dependence. If this is right, then the desire would need to pre-exist the arising of fear not arise at the same time.

In Thich Nhat Hanh's defence, there is ambiguity in what it might mean for a state to arise, originate or be 'born'. As discussed, some Buddhist and mainstream philosophers distinguish occurrent and latent or dispositional mental states. It would be consistent with some versions of this distinction to maintain that fear occurs for the first time in the conscious experience of an infant, triggered by their first experiences of threat, while conditioned by a latently pre-existing dispositional desire to survive. We might also analyse the original fear, itself, dispositionally. Thich Nhat Hanh might argue, for instance, that we have an 'innate' (viz. dispositional) fear of not surviving death but that this fear is 'born' (viz. occurrent in conscious awareness for the first time) at the time of birth (or shortly thereafter). This defence goes beyond what Thich Nhat Hanh actually says, but it might

connect to his claims that our original fear is partly an adaptive inheritance from our ancestors. “Our original fear isn’t just from our own birth and childhood” he writes, “the fear we feel comes from both our own and our ancestor’s original fear” (p.21) He further remarks: “Our ancestors suffered from hunger and other dangers and there were moments when they were extremely anxious. That kind of fear has been transmitted to us; every one of us has that fear inside.” (p.21). Thich Nhat Hanh elaborates this idea of inherited original fear by comparing individuals to a plum tree that can produce branches, leaves, flowers, and plums only because of the “adaptations of so many generations of ancestors.” (p.24) This example concerns inherited capacity; adaptation explains how the plum tree *can* or *is able to* produce branches, leaves, flowers and plums. The analogous point should then be that a capacity for fearing not surviving death is also an inherited adaptation.

Vehicles of inheritance

Complications arise, however, when we think through how Thich Nhat Hanh conceives of inheritance. What is the vehicle by which original fear is transmitted from one generation to the next? Thich Nhat Hanh offers two conflicting suggestions.

First, he suggests that the vehicle by which original fear is inherited is mental. He writes: “The fear of aging, the fear of illness, the fear of death, the fear of letting go, and the fear of the consequences of our karma are all there in our store consciousness. We don’t want to face our fear, so we try to cover it up, keep it down there in the cellar... We don’t want it showing itself in our mind consciousness.” (p.39) The distinction between a store-consciousness (*alaya-vijñāna*) and mind consciousness (or ‘active consciousness’, *pravṛtti-vijñāna*) comes from Yogācāra Buddhism and was innovated to explain the persistence of latent mental states and karmic debt. Buddhists assume that individuals accumulate karmic debt across lifetimes as the result of their actions, and this accumulated debt determines the nature and fact of their present existence and causes some events to occur in this life. How does it do this? This question was heavily debated. Some Abhidharma Buddhists developed

the idea that karmic debt takes the form of a 'seed' or latent tendency (*saṅkhāra*) that 'fruits' as a physical or mental event (Waldron, 2006). But prominent Abhidharma Buddhists also held that all existing things, including all mental states and events, are impermanent in the sense of being momentary. How can karmic seeds persist on such a conception of temporal existence? Yogācāra Buddhists answered this question by innovating the idea of a store-consciousness as its subliminal repository, and related it to the idea of an active consciousness. On one version of this idea: mental events that occur in active conscious awareness (occurrent mental events) can cause mental events to occur in the store-consciousness (latent or dispositional mental events), which self-replicate until they fruit in suitable conditions to cause a certain kind of occurrent mental event later down the line.

In appealing to these ideas, it would seem that Thich Nhat Hanh is supposing that original fear is an occurrent mental event (caused by trauma at the time of birth and conditioned by a desire to survive) that causes a latent original fear to arise which then self-perpetuates until suitable conditions arise (which include the arising of other mental events, such as beliefs) to cause subsequent occurrent mental events of fear to arise. It would also be consistent for him to claim that the traumas at the time of birth directly cause a latent fear of annihilation to arise which then conditions subsequent fear occurrences. While this might explain how original fear persists, in a dispositional form, and causally influences subsequent occurrences of fear, it is not yet clear how it explains inheritance. How can the mental states that arise in the occurrent or latent conscious awareness *of our ancestors* have a latent causal influence on the fears that arise in *our own* occurrent conscious awareness? Thich Nhat Hanh does not say. A possibility might be for him to lean into the Yogācāra Buddhist framework and argue that the latent mental events in our ancestors continue to exist in us because they are part of the same psycho-physical causal stream; they are part of 'ourselves' in a previous life. Given the Buddhist denial of selves understood as substantively

persisting individuated substances, it might seem that this metaphysical possibility is uniquely available to them. While it is not clear if this is what Thich Nhat Hanh has in mind, he does tend to describe the operations of karma in terms of inheritance (e.g., “I inherit the [karmic] results of my body, speech, and mind”, p.30), which suggests that something like this might be in the background. If so, then it is problematic. Not only does it raise difficult metaphysical questions about how psycho-physical causal streams are individuated, it also treats our biological ancestors and our karmic ancestors as equivalent. This seems implausible since the biological ancestors of interest to evolutionary biology – our mothers, fathers, grandmothers, grandfathers – can co-exist alongside us but our karmic ancestors cannot.

While the nature of inheritance is a live research issues in evolutionary biology, many accept that the vehicles by which information is inherited are physical; either genes or neural structures in the brain (as proposed to explain cultural inheritance) and perhaps also artifacts in the environment, produced by our ancestors, that scaffold these genes and neural structures (Sterelny, 2010). Thich Nhat Hanh remarks that our ancestors are present “in the genetic heritage that is in every cell of your body.” (p.25) This suggests that he thinks that the vehicle of inheritance for our original fear are our genes. Thich Nhat Hanh also claims that our “spiritual ancestors” (by which I take it he means our educators and social forebears) have a causal influence on our fears “because what you are by nature and what you are by nurture cannot be separated” (p.25). This suggests he also thinks that original fear is culturally inherited. He does not explain how the cultural and genetic transmission of original fear intersect. This is perhaps a mere explanatory gap rather than a problem, for afterall, even evolutionary biologists have difficulty explaining the relation between these two modes of informational transmission. But Thich Nhat Hanh also does not explain how these remarks are consistent with his references to the Yogācāra store-consciousness. This omission is more problematic. For evolutionary biologists, the vehicles of inheritance are

physical (e.g., genes, neural structures in the brain, and/or artifacts in the environment). For Yogācāra Buddhists, the vehicle of inheritance appears to be non-reductively mental (e.g., the continuance of a latent mental state in the store-consciousness). Without explaining how these different ideas in his theory relate, one might suspect that Thich Nhat Hanh is here making a fallacious appeal to science to lend Buddhist views credibility that are, in fact, inconsistent.

The adaptivity of fear

Mainstream emotion theory treats fear as broadly adaptive for survival. Thich Nhat Hanh appears to do so too insofar as he compares the inheritance of our original fear to a plum tree which can germinate, grow, and bear fruit “because it has received the experience and adaptations of so many generations of ancestors. You are the same.” (p.24). Despite this analogy, Thich Nhat Hanh’s treatment of fear assumes that it is fundamentally maladaptive. According to his account, all fears are mistaken projections of the original fear which arose in response to the traumas of birth. If we can heal that trauma, Thich Nhat Hanh argues, we can be “liberated from fear” (p.59). While no-one denies that fear can take maladaptive forms, with PTSD one prominent example, emotion theorists do not treat this as a blanket description of fear. Sometimes we (rightly, rationally) fear things that do, in fact, threaten our existence and are motivated to act in ways that successfully avert those threats. The task is seen to be one of sorting out the appropriate from the inappropriate forms of fear, rather than removing fear entirely.

Historical and other contemporary Buddhists distinguish good and useful forms of fear from those that are bad or afflictive. In recent work, the Dalai Lama (2017) distinguishes “wisdom-fear” from “afflictive fear” relative to their usefulness; he claims that the former involves a realistic assessment of danger and causes us to exercise caution but the latter involves distortion and an unfocused sense of panic that “is of no benefit at all” (p.48). The Buddha and historical Buddhist philosophers also marked a distinction between

appropriate and inappropriate forms of fear (Brekke, 1999; Finnigan, 2021; Giustarini, 2006). The basis of this normative distinction for historical Buddhists, however, is not the same as assumed by mainstream functional analyses; that fear is ‘appropriate’ is not the same as it being ‘adaptive’. This is because Buddhists tend to treat fear as appropriate when its object is causally related to karmic suffering and useful when it spurs individuals to make a strong effort in their contemplative practice to achieve the cessation of suffering (Finnigan 2021). The functional objective of fear for the historical Buddhists (if this language makes sense in this context) is to avert karmic suffering (or perhaps suffering more generally) rather than to facilitate survival.

Fear of becoming nothing when we die as our ‘greatest’ fear?

Thich Nhat Hanh’s conception of fear is deeply embedded in Buddhist philosophy. While he clearly appeals to Yogācāra Buddhist ideas to articulate the details, there is some tension between his broad level claims and received Buddhist views. Thich Nhat Hanh claims, for instance, that fear of becoming nothing when we die is our most fundamental fear and the explanatory base of all subsequent fears. There is evidence that the Buddha did, indeed, recognise that we can and do fear this possibility. The idea that we become nothing when we die, annihilationism (*ucchedavāda*), was historically misattributed to the Buddha as a (mis)reading of his teaching that there is no self. “[U]ninstructed worldlings become frightened over an unfrightening matter” the Buddha remarks. Buddhagoṣa elaborates that they become afraid, thinking “Now I will be annihilated and won’t exist anymore” and “see [themselves] falling into an abyss.” (Spk. cited in Bodhi 2005: 1064). There is no evidence, however, that the Buddha viewed this as our ‘greatest’ fear, let alone the explanatory base of all fears. If anything, the Buddha is reported to have claimed that “*suffering* is man’s (sic) greatest fear” (SN1.55, my italics). While there are several things he could mean by this, it might be read as the claim that a fear of *suffering* is a fundamental causal condition of all

(most or some of) our fears. If this is right, then there is a mismatch between Thich Nhat Hanh's conception of fear and that historically attributed to the Buddha.

Conclusion

Thich Nhat Hanh claims that we all have an original fear of becoming nothing when we die that arises in response to the traumas of birth, is the explanatory basis for all subsequent fears, and is adaptively inherited from our ancestors. He also proposes that physics and the Buddha's teachings offer cognitive strategies that can remove this fear, and thereby all fear. This paper critiqued Thich Nhat Hanh's appeal to science to elucidate these views. It argued that the consolations he draws from physics, when related to those drawn from the Buddha's teachings, are unconvincing. Moreover, while it gave reasons to think that several elements of his conception of original fear gain support from mainstream science as well as Buddhist philosophies of mind, it also showed that problems emerge when we scrutinise the details.

Why should we care about this? Mainstream science is taking an increasing interest in Buddhist philosophies of mind, with a specific focus on the therapeutic targets of Buddhist contemplative practices and the anticipated outcomes of engaging in these practices. While the most influential mindfulness-based therapies target stress, depression and pain, there is increasing interest in their impacts on fear and anxiety. Thich Nhat Hanh is one of the world's most prominent Buddhist practitioners and intellectuals, and the only one to have defended a Buddhist perspective on fear in relation to mainstream science. His work is the most obvious candidate for interdisciplinary dialogue on this topic. It is therefore important to subject his writings on fear to scrutiny, especially those claims declaring it to be scientifically grounded.

The conclusion is not all negative. To arrive at this point involved introducing several important Abhidharma and Yogācāra Buddhist ideas about the nature of mind and suggesting ways they might align with mainstream science and philosophy. They include

the idea that mental states are intentional, the idea of multiple layers or modes or kinds of consciousness, and a distinction between latent and occurrent mental events. While the discussion of the latter two ideas in this paper was bound up with commitment to karmic rebirth, they have the potential for broader application without this commitment. These are positives and suggest avenues for potential interdisciplinary engagement. But, as this article also demonstrates, the idea of karmic rebirth is often subtly assumed in Buddhist philosophies of mind, both historical and contemporary, and its removal might require some careful conceptual untangling.

ABBREVIATIONS

- AKBh *Abhidharmakośabhāṣya* of Vasubandhu in Pruden (trans.) (1990)
ABS *Abhidharmasamuccaya* of Asaṅga in Wahula & Boin-Webb (trans.) (2001)
AN *Aṅguttara Nikāya* of The Buddha in Bodhi (trans.) (2012)
DN *Dīgha Nikāya* of The Buddha in Walshe (trans.) (1995)
MN *Majjima Nikāya* of The Buddha in Ñāṇamoli & Bodhi (trans.) (1995)
P. Pāli
Skt. Sanskrit
SN *Samyutta Nikāya* of The Buddha in Bodhi (trans.) (2005)
Spk *Sāratthappakāsin* of Buddhagoṣa cited in Bodhi (trans.) (2005)

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