

The Illusion of Free Will: Education, Mindfulness and Metaphysics

Terry Hyland – Emeritus Professor, University of Bolton, UK and Research Director, Turning Point Training Institute, Dun Laoghaire, Ireland

Contextual Background

The recent discussions of the topic by Langford, Bacrac and Lucas (*Prospero*, 18(2/3)) demonstrate – not only the perennial relevance of issues surrounding human freedom and our fascination with those issues (a free will debate was part of the *Battle of Ideas Festival* held at the Barbican at the end of October, 2012) – but, more importantly, how perspectives in this area have an abiding relevance to core questions in ethics, politics and all aspects of public life. Langford (2012) is correct to note the crucial importance of the free will debate for education at all levels, and argues forcefully for the role of the humanities in meeting the difficult challenge of justifying common moral values and a transcendent sense of what constitutes the good life.

The rise of secularism in the wake of the ‘new atheist’ movement (Hyland, 2011a) has brought with it a tough-minded, science-based and pessimistic stance on the free will problem though, like new atheism itself, the ‘new’ deniers of free will owe almost everything to arguments already well established by earlier thinkers such as Democritus, Spinoza, Hume and Laplace. What recent re-statements of the issues by writers such as Blackmore (2011), Pashoe (2011) and Harris (2012) have in common is an unwavering determination to push the alleged illusory nature of free will to its logical conclusion and then to examine the consequences for humankind. If education is to live up to the liberating and transformational role assigned to it by educators as diverse as Whitehead, Peters, Rogers and Freire, then such consequences need to be examined very carefully. I want to suggest – as a supplement to some potential limitations of the standard rationalist-compatibilist responses to the problem of free will – that the pessimistic accounts can be transformed into more optimistic visions through the application of Buddhist mindfulness principles combined with ideas drawn from quantum metaphysics.

Free Will, Materialism and Self

Susan Blackmore – the psychologist and researcher on evolutionary theory, consciousness and meditation – expresses the central issues in this sphere by quoting Dr Johnson’s famous remark that ‘All theory is against freedom of the will; all experience for it’. She goes on to observe that:

With recent developments in neuroscience and theories of consciousness, theory is even more against it than it was in his time. So I long ago set about systematically changing the experience. I now have no feeling of acting with free will, although the feeling took many years to ebb away (in Brockman, 2005, p.41).

The 'theory' referred to by Blackmore which seems to count so decisively against the possibility of free will has emerged from two millennia of philosophical analysis of the central problems. Determinism – the notion that everything has a cause – was part of the Stoic system of philosophy, and the issues raised have formed part of philosophical speculation since the time of the Ancient Greeks, finding their fullest expression in atomistic theory of Democritus (Sheldrake, 2012). Such mechanistic and causal explanations of the world – including that of human agency – have developed exponentially with the growth of science and now, as Sheldrake argues, go to make up some of the key unquestioned axioms of all scientific activity.

Of course, even the sort of hard-headed materialists of contemporary science taken to task by Sheldrake would no longer maintain such a simplistic and uncompromising position. The indeterminacy of sub-atomic particles revealed by quantum mechanics and the uncertainty of the cosmological constant revealed in the recent discoveries of an exponentially expanding universe driven by dark energy and dark matter (Panek, 2001) have served to temper some of this materialistic certainty. However, the deterministic assumptions remain in much of scientific thinking and the implications for human thought and action of indeterminism offer very little scope for escape from arguments against freedom of the will.

Harris (2012) expresses the position in stark terms:

Free will *is* an illusion. Our wills are simply not of our own making. Thoughts and intentions emerge from background causes of which we are unaware and over which we exert no conscious control...Either our wills are determined by prior causes and we are not responsible for them, or they are the product of chance and we are not responsible for them (p.5, original italics).

Given what we now know about DNA, evolutionary psychology and the link between brain states and emotions, desires and intentions (Pinker, 1997; Blackmore, 2011) it is difficult to make sense of the notion of people acting 'freely', particularly when we add social context, family background and life experiences to the general picture. Why, then, is there a problem about freedom of the will if there is very little evidence in favour of it? The answer is hinted at in the Blackmore quotation referred to above. In spite of all the objective counter-evidence, we still have to account for the subjective *feeling* that we are free to choose, decide and act in particular ways and that – in looking back on past actions and choices – we do seem to think that we could have acted and decided otherwise. However, this *feeling* can be accounted for in historical and anthropological accounts of the development of social,

legal, moral, religious and political systems (Pashoe, 2011) and it is important to find out why Blackmore's project of removing such a feeling from her life is one that has not been attractive to or adopted by more people. An interesting question is why it seems to be so difficult (or, at least, not that easy) to accept her conclusion – made after a lifetime's study of consciousness and Zen meditation practice – that there is:

no persisting self, no show in a mental theatre, no power of consciousness and no free will, no duality of self and other – just the complex interactions between a body and the rest of the world, arising and falling away for no one in particular (2011, p.165).

Blackmore's denial of a separate self has a long philosophical pedigree. Hume is best known as an opponent of the notion of a unique 'I' or 'me' and offered the famous observation that 'I can never catch myself at any time without a perception, and never can observe anything but the perception' (1964 edn.,p.239). Chappell (2005) reminds us – in his examination of the 'inescapable self' as it applies to ethics, epistemology and philosophy of mind – that both Heracleitus and the Buddha had reached broadly the same conclusion as Hume as long ago as the 5th century BC. Indeed, the notion that the self as a subjectively constructed narrative can be found in diverse spheres of thought from history to psychology, political science and literary criticism. As Chappell puts it:

Humean, deconstructionist, Buddhist, Heracleitean, or Marxist historian: all of these different schools of thought move, in their different ways, towards the same conclusion about the self. The conclusion is that selves are causally and explanatorily inert because they do not actually exist as parts of the fabric of the world (p.220).

Moreover, recent studies in neuroscience have cast doubt on the concept of a centre of consciousness, a central and unified 'self' or 'I' directing all aspects of our behaviour. Blackmore (2005) discusses the counter-intuitive idea that – although we make the standard assumption that there is a unified centre to all our acts and experiences – this feeling is not supported by studies of consciousness. Neuroscientific research indicates that there are many facets of consciousness which can be linked to different brain states but little evidence of brain states which correspond to a single entity or source of consciousness. Certain fundamental assumptions – such as the notion of a fixed and unchanging self located in a conscious mind through which flow a 'stream of ideas, feelings, images and perceptions' – have, according to Blackmore, to be 'thrown out' (p.128). So how are we to proceed? Blackmore suggests that we:

start again with a new beginning. The starting point this time is quite different. We start from the simplest possible observation. Whenever I ask myself "Am I conscious now?", the answer will always be "yes". But what about the rest of the time? The funny thing is that we cannot know. Whenever we ask the question we get an answer – yes – but we cannot ask about those times when we are not asking the question (p.128).

Even more intriguing is the ground-breaking work by Libet (2003) using functional magnetic resonance imaging (fMRI) scanning techniques which indicates that activity in the brain's motor sections – when subjects are asked to perform actions or respond to sights, sounds or touches – actually *precedes* consciousness of such perceptions. If consciousness *follows* awareness, perception and behaviour, therefore, how can such activity be said to have been *caused* by consciousness?. Moreover, if we are not in complete conscious control of our thoughts and actions, does this not imply that we cannot be held accountable for them since they are in some sense determined by factors outside our control?

If we then move from the inner to the outer world, recent developments in astrophysics and cosmology also cast doubt on the possibility of free will. The discovery that the universe was – contrary to previous scientific belief – expanding at an accelerating rate led astrophysicists to posit the idea of dark energy and matter as an explanation of this phenomenon. As Panek (2011) puts it, the material is:

not “dark” as in black holes or deep space. This is “dark” as in unknown for now, and possibly forever: 23% something mysterious they call dark matter, 73% something even more mysterious that they call dark energy. Which leaves only 4% the stuff of us (p.xv).

Sheldrake (2012) explains how such new perspectives have thrown doubt on the traditional laws concerned with the conservation of matter and energy. In accounting for the observation that more gamma rays were being emitted from the centre of the Milky Way than could be accounted for, a number of astrophysicists have suggested that ‘dark matter was being annihilated, giving rise to regular kinds of energy’ (pp.68-9). Such anomalies – along with quantum uncertainty and the staggering notion that 96% of the universe is unknown and unexplained – is more than enough to take the edge off determinism and justify forms of indeterminism.

As Harris (2012) concludes:

If determinism is true the future is set – and this includes all our future states of mind and our subsequent behaviour. And to the extent that the law of cause and effect is subject to indeterminism – quantum or otherwise – we can take no credit for what happens. There is no combination of these truths that seems compatible with the popular notion of free will (p.30).

The Illusion of Free Will: From Pessimism to Optimism

Thus far, we are still firmly in the pessimistic camp: genuinely free will really is a chimera. Harris (2012) expresses the position in stark terms:

Free will *is* an illusion. Our wills are simply not of our own making. Thoughts and intentions emerge from background causes of which we are unaware and over which we exert no conscious control...Either our wills are determined by prior causes and we are not responsible for them, or they are the product of chance and we are not responsible for them (p.5, original italics).

Short of entering heavy caveats, limitations and equivocal qualifications, there seems to be no way out of the free will *impasse*. It seems that we do not have the freedom we feel that we have – free will really is an illusion. Pashoe (2011) summarises the position well in observing that:

No matter how hard we might try to be the agent of the way our brain processes sense-data experiences, we can only begin to become aware, and make sense of these processes after our brain has already begun translating them into identifiable thoughts, and this contradicts the meaning of agency. The experience of hindsight is all we have for deciding whether our so-called decisions are going to be wise ones or not, but then of course it's too late – they have already been made for us. So who's in charge? (p.42).

However, unlike certain existentialist perspectives in which despair and pessimism take prominence, the denial of free will may become an optimistic affirmation of the way things really are coupled with a positive commitment to 'improving ourselves and society' in 'working directly with nature, for there is nothing but nature itself to work with' (Harris, 2012, p.63).

Blackmore is absolutely convinced that it 'is possible to live happily and morally without believing in free will' and has explained in detail how meditation has personally led to a 'massive integration of processes all over the brain and a corresponding sense of richer awareness' (2011, p.164). How does all this work? Harris (2012) gives us clues and also provides links to Buddhist mindfulness in noting that:

Becoming sensitive to the background causes of one's thoughts and feelings can – paradoxically – allow for greater control over one's life...This understanding reveals you to be a biochemical puppet, of course, but it also allows you to grab hold of one of your strings...Getting behind our conscious thoughts and feelings can allow us to steer a more intelligent course through our lives (while knowing, of course, that we are ultimately being steered) (p.47).

Elsewhere, Harris (2006, 2010) has noted the efficacy of meditation and contemplative traditions in providing a more solid foundation than religion for moral, political and legal systems, and there seem to be clear connections here between the suggested response to the free will illusion and Buddhist practice.

Mind, Mindfulness and Human Agency

The basic procedures and processes of mindfulness offer a useful starting-point in answering questions about freedom and Buddhist practice. Segal, Williams and Teasdale (2002) suggest that, rather than consisting in any particular method or approach, there are 'many different methods and techniques' for cultivating mindfulness. The process implies:

Developing and refining a way of becoming more intimate with one's own experience through systematic self-observation. This includes intentionally suspending the impulse to characterise, evaluate and judge what one is experiencing. Doing so affords multiple opportunities to move beyond the well-worn grooves of our highly conditioned and largely habitual and unexamined thought processes and emotional reactivity (p.viii).

Siegel (2007) observes that a 'useful fundamental view is that mindfulness can be seen to consist of the important dimensions of the self-regulation of attention and a certain orientation to experience'(p.11). Bishop, et al (2004, p.232) proposed the following two key stages or elements of the process:

1. The self-regulation of attention so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in the present moment
2. A particular orientation toward one's experiences in the present moment, an orientation that is characterized by curiosity, openness, and acceptance

The qualities of curiosity, openness and acceptance that occur throughout accounts of the pre-requisites of mindful practice are also especially relevant to the learning and development involved in responses to the free will dilemma outlined earlier. Two other key elements relevant to practice are worth mentioning here as spheres that need to be satisfactorily accommodated in order to cultivate mindfulness: our tendency towards 'rumination' and 'experiential avoidance'. These figure prominently in Mindfulness-Based Cognitive Therapy (MBCT) and related practices and are explained by Crane (2009,p.11) as follows:

- Rumination is a particular style of self-critical, self-focused, negative thinking. It is preoccupied with and driven by the desire to 'solve' the emotional challenge of unhappiness or lowered mood
- Experiential avoidance is the attempt to remain out of contact with the direct experience of challenging thoughts, emotions and body sensations

Thus, whereas rumination and avoidance place obstacles in the way of achieving mindfulness, the cardinal virtues of curiosity, openness and acceptance – along with the key attitudinal factors outlined by Kabat-Zinn (1990) – will, ideally, help to remove such obstacles.

All of these attitudes and procedures are designed to foster what Siegel (2010) has called 'mindsight' which is defined as:

a kind of focused attention that allows us to see the internal workings of our own minds. It helps us to be aware of our mental processes without being swept away by them, enables us to get ourselves off the autopilot of ingrained behaviours and habitual responses, and moves us beyond the reactive emotional loops we all have a tendency to get trapped in. It lets us "name and tame" the emotions we are experiencing, rather than being overwhelmed by them (pp.xi-xii).

The clear implication here is that mindfulness helps us to stand back from the welter of emotions – the stream of thoughts, images and sensations which often overwhelm our conscious minds – to achieve a form of purified vision which, in some sense, places us outside of the normal causal relationships between minds and the world.

Does this pure 'here and now' level of consciousness enable us to transcend determinism/indeterminism and move in the direction of freedom of thought and action? Gunaratana (2002) suggests as much in the observation that:

Mindfulness alone has the power to reveal the deepest level of reality available to human observation. At this level of inspection, one sees the following (a) all conditioned things are inherently transitory; (b) every worldly thing is, in the end, unsatisfying; and (c) there are really no entities that are unchanging or permanent, only processes (ibid.,p.144).

Neuroscience has shown that mindfulness meditation changes the brain patterns of meditators (Doidge, 2007; Gilbert, 2009) through increasing left brain activation to enhance positive feelings and emotional resilience. Since meditators have 'chosen' to change their brains in this way, could we say that they have expanded their scope for experiencing freedom? This seems a reasonable suggestion though it does not, of course, answer all the questions posed by Harris, Blackmore and Pashoe since they could pose the further query concerning the cause of the turn to Buddhist practice or mindfulness meditation in the first place. Can mindfulness practice respond to such further questions?

Mindfulness and Freedom

I would offer two responses to the fundamental questions about whether mindfulness practice can enhance free will, a limited one which expands and elaborates the argument about brain changes outlined above, and another, less limited one linking present-moment awareness with indeterminacy and quantum metaphysics.

1) Mindfulness meditation enhances freedom by expanding the human capacity for being in the here and now, a state which, arguably, transcends the normal sequence of past/present/future causality. Much of the time the mind is in a state of undifferentiated flux as it fixes on one object after another in a random and dissipated fashion. By 'cultivating mindfulness', the Dalai Lama (2005), reminds us, 'we learn first to become aware of this process of dissipation, so that we can gently fine-tune the mind to follow a more directed path towards the objects on which we wish to focus' (p.160). It is important to note that such attention has

a deliberate intention that helps us select a specific aspect or a characteristic of an object. The continued, voluntary application of attention is what helps us maintain a sustained focus on the chosen object. Training in attention is closely linked with learning how to control our mental processes (ibid.,p.161).

It is suggested that – through this training in attention – the control of mental processes achieved is as near as possible that humans can approximate to free will. The move from a ‘doing’ to a ‘being’ mode which is characteristic of mindfulness might be as near as we can get to frustrating the past/present/future causal flow of determinism. As Segal, Williams and Teasdale (2002) put it:

In doing, it is often necessary to compute the future consequences of goal-related activity...As a result, in doing mode, the mind often travels forward to the future or back to the past, and the experience is not one of actually being “here” in the present moment much of the time. By contrast, in being mode, the mind has “nothing to do, nowhere to go” and so processing can be dedicated exclusively to processing moment-by-moment experience (p.73).

Although consciousness is an illusion, Blackmore (2011) suggests, it is ‘an enticing and convincing one’ (p.160). Yet, as already noted, the only time that we are fully aware that we are conscious is when we ask the question ‘Am I conscious now?’ (ibid.,pp.164-5). Just as we can only be conscious in the present moment of asking this question, so we can only experience a form of freedom in the here and now of that ‘mindsight’ which allows us to stand back and view the internal workings of our mental processes.

2) The present moment experience of mindfulness – if conjoined with Whitehead’s (1943, 1978) quantum metaphysics concerning mind, matter and time – can be seen to allow for a form of enhanced freedom which does seem to answer some key objections incorporated in the arguments about the illusion of free will. Shel Drake (2012) explains that quantum physics shows that ‘there is a minimum time frame for events because everything is vibratory and no vibration can be instantaneous’ (p.120). Building on Bergson’s work, Whitehead argued that – since there is no ‘nature at an instant’ – the relationship between mind and matter is one of time not space. Mind and matter are thus ‘related as phases in a process’ such that:

every actuality is a moment of experience. As it expires and becomes a past moment, it is succeeded by a new moment of ‘now’, a new subject of experience. Meanwhile the moment that has just expired becomes a past object for the new subject – and an object for other subjects too...Experience is always ‘now’, and matter is always ‘ago’. The link from the past to the present is physical causality, as in ordinary physics, and from the present to the past is feeling or, to use Whitehead’s technical term, “prehension”, meaning, literally seizing or grasping...The direction of physical causation is from the past to the present, but the direction of mental activity runs the other way, from the present to the past through prehensions, and from potential futures into the present (Shel Drake, ibid.,p.121).

This accords with Libet’s (2003) suggestion that the explanation of his experiments indicating that brain changes precede conscious awareness of thoughts and sensations was that there was a ‘conscious mental field’ which tended to ‘unify the experience generated by the many neural units’ and thus ‘be able to affect certain neural activities and form a basis for conscious will’ (p.27). This aspect of consciousness seems to allow for a forwards-backwards time reference frame, a loop connecting past and potential future which links with

Whitehead's ideas about mind, matter and past/future experiences. As Whitehead (1943) observes:

The causal independence of contemporary occasions is the ground for the freedom within the Universe...It is not true that whatever happens is immediately a condition laid upon everything else...The antecedent environment is not wholly efficacious in determining the initial phase of the occasion which springs from it. There are factors in the environment which are eliminated from any function as explicit facts in the new creation...The initial phase of each fresh occasion represents the issue of a struggle within the past for objective existence beyond itself (pp.255-6).

Making use of elements of Whitehead's metaphysics, De Quincey (2008) asks us to:

Think of reality as made up of countless gazillions of 'bubble moments', where each bubble is both physical and mental – a bubble or quantum of *sentient* energy...Time is our experience of the ongoing succession of these momentary bubbles of being (or bubbles of *becoming*) popping in and out of the present moment of *now*...The future does not exist except as *potentials* or possibilities in the present moment – in experience – which is always conditioned by the objective pressure of the past (the physical world). Subjectivity (consciousness, awareness) is what-it-feels-like to experience these possibilities, and choosing from them to create the next new moment of experience (p.99; original italics).

In a similar vein, Dyson (1979) suggests that:

mind is already inherent in every electron, and the processes of human consciousness differ only in degree but not in kind from the processes of choice between quantum states which we call 'chance' when they are made by an electron (p.249).

Whitehead's 'prehensions' are, thus, aspects of mental activity which permit choice between possible futures. Sheldrake (2012) neatly summarises the position in observing that:

The relationship of minds to bodies is more to do with time than with space. Minds choose among possible futures, and mental causation runs in the opposite direction from energetic causation, from virtual futures towards the past, rather than from the past towards the future (p.129).

Since this process of prehension is here being applied to normal mind/body states, such capacities are, arguably, considerably expanded and magnified during states of impartial watchfulness, the self-observation generated by mindfulness practice. To use Harris' (2012, p.47) evocative analogy of puppetry, mindfulness helps us, firstly, to determine the nature of both the puppeteer and his/her strings and, secondly, to exert some control over the direction in which the strings are being pulled.

Mindfulness, Freedom and Education

There are two main ways in which Buddhist mindfulness practice may be said to provide enhanced scope for that freedom of thought and action required for educational development. The wise attention fostered through mindfulness allows us those moments of calm 'mindsight' in which we can observe and stand back from the past/present/future stream of consciousness and thus expand our understanding and control of possible futures in the 'here and now' of meditative spaciousness. If this capacity is combined with quantum

perspectives, a process by which present-moment awareness allows choices between potential/possible futures is revealed. Mindfulness practice thus enhances that capacity for liberation and transformation which is at the heart of those educational perspectives which foreground the autonomy and independence of learners.

The benefits of mindfulness – validated by two millennia of *dharma* practice and, more recently, by the data of neuroscience – are achievable ideals and, arguably, as near as humans can approximate to freedom. Moreover, the qualities and virtues fostered and choices made during present-moment mindfulness have been shown to be conducive to the development of compassion, loving-kindness, equanimity and sympathetic joy (Gilbert, 2009; Hyland, 2011b), all of which are noble educational goals which may help to provide a contextual framework for and counter-balance to the more cognitive, formalistic conceptions of educational autonomy and transformation.

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