

Coursera Buddhism and Modern Psychology Final

1. Does modern science lend support to Buddhist ideas about the human predicament?
- 2. Does modern science lend support to Buddhist ideas about the human mind?**
- 3. Does modern science lend support to the logic behind Buddhist meditation practice?**
4. Does modern science lend support to the moral validity of Buddhism?

ACROSS 36 Any of the Four Noble Truths (Answer: TEN^E_T)
—New York Times Crossword, Thursday, May 1, 2014

ten·et (ten'it, tē'nit), *n.* any opinion, doctrine, dogma, etc., held as true.
[< L: he holds] —**Syn.** belief.

Buddhist ideas about the human mind and meditation are closely linked. With regards to their relation to modern science, I take issue with the word “support” and argue that “explain” is the relevant verb. I assert that the Buddhist ideas are *tenets*, beliefs that are held independently, irrespective of whether scientific investigation might align or conflict with such beliefs. Science can, however, explain how such tenets can exist in the mind independent of quotidian notions of reality.

Buddhist doctrine holds the mind as untrained, grasping for fading external delights (Noble Truths 1 and 2), and unable without assistance to reliably forge a path to end suffering and achieve enlightenment (Noble Truths 3 and 4). As Gethin (p. 175) translates

Radiant is the mind, monks, but sometimes it is defiled by defilements that come from without. The ordinary man without understanding does not know it as it truly is. [Anguttara Nikāya i. 10]

Meditation provides the Buddhist a crucial vehicle for fully understanding the Noble Truths and training the mind to follow a right path, the eightfold path of Noble Truth 4, for release from suffering and the distracting hold of the external world.

In this course, Princeton visiting lecturer Robert Wright has shown in his video lectures that there is clear physiological evidence for the transient nature of stimuli, both pleasant and unpleasant, at the nervous system cellular level. Wright also cites evidence that the brain can easily be induced to respond to stimuli it only anticipates, for example the elevation of serotonin in monkeys after seeing visual cues that often preceded food treats. He convincingly puts forward the argument that this is a result of natural selection, impelling the individual to continually seek out the essentials for survival and propagating genes to future generations. This does not necessarily translate as “suffering” and, indeed, for many people it is the striving, not the attainment that is most rewarding. Paul Bloom points out in his chapter 2 (Foodies) that many people develop a liking for unpleasant tastes such as hot and sour soup, even though biologically we are wired to reject those tastes as cues to harmful substances.

The class video lectures also noted that brain imaging during deep meditation showed a suppression of the default mode network, the brain regions normally active during introspection, daydreaming, and

memory recall. As meditation practice focuses away from external stimuli, such further suppression of internal stimuli leads to a dissociation of some sort, consistent with the reported effects of deep meditation such as viewing normal concerns and feelings as a dispassionate observer and “out of body” experience of nonlocalized existence. This also does not lead to a scientific conclusion about the presence or absence of some universal substratum or oneness of reality that meditators tap into.

Princeton Professor Michael Graziano has fairly recently provided an innovative explanation for how the brain operates and how awareness and consciousness arise and work. Unlike prior thinking, he posits no magic or divine spark, no little “man behind the curtain” directing conscious thoughts and actions. Instead, he separates *attention* from *awareness*, with the former being the result of a temporary ascendancy of some current sensory and/or mental stimuli and the latter being a model description, a *schema*, consisting of a condensed set of information that is called up from the brain to provide “a simplified, but useful way [to represent] something more complex.” (Graziano, p. 25) In particular he dissects the statement “I am aware of X” into three separate components: [I] [am aware of] [X] with awareness being a “rich descriptive model of the relationship between an agent and the information being attended by the agent.” (Graziano, p. 30) In this model, awareness can exist separate from attention. “It may be possible outside of attention, at the fringes of attention, or close to sleep to be aware, simply aware, without being aware of something, and without processing that you are the being who is aware. (One is reminded of some of the goal states of Buddhist meditation. Clear your mind of all thought. Achieve a pure awareness.)” (Graziano, p. 115)

With his take on attention and awareness(and consciousness), it is quite easy to explain why the human mind can believe things (hold tenets) that may have no externally verifiable reality and, indeed, can be mutually conflicting without causing any discomfort or even awareness of any contradiction. As Graziano concludes (p. 231):

The theory is truly explanatory in the sense that it explains the observables. It explains how an information-processing machine can scan its internal data and so find, discover, conclude, decide, assign certainty that it is aware, that it is aware of this or that, that awareness has all the properties that humans normally ascribe to it. The theory explains how a brain can decide with such confidence that it has an inner experience. It explains how a brain can attribute that particular, complex, rich idiosyncratic combination of properties to itself, to others, to pets, and even to ghosts and to gods.

From the natural selection perspective, there has clearly been no overriding impediment to propagating genes to future generation from holding such beliefs. Indeed, even today it is demonstrable that holding such beliefs provides advantage and even survival in society.¹

So, indeed, modern science has findings that help explain Buddhist ideas about the human mind and the logic behind meditation practice, but it does so in ways that were not imagined thousands of years ago and allows them to have existence independent of truth or falsity, mundane or spiritual, or, indeed, science or magic.

¹ I cannot resist here noting that Devlin attributes mathematical ability, or more generally is pure abstraction, as a direct outgrowth of our abilities to navigate complex social situations.

References:

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