Engaging Buddhism with a False Imagination: Reflections on Some Misrepresentations of Buddhist Philosophy by Western philosophers, & a Quantum Buddhist Mind-only Solution
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ABSTRACT
The metaphysical implications of the Yogācāra-Vijnanavada ‘consciousness-only’ school of Buddhist psycho-metaphysics has become an issue of some debate amongst some Western philosophers with an interest in Buddhist philosophy. The ‘canonical’ view amongst many significant scholars is that, as the name suggests, this perspective asserts that the ultimate nature of the process of reality is nondual primordial consciousness/awareness. On this ‘Idealist’ view the external apparently material world is considered to be a mind-created illusion. However, some contemporary Western philosophers are offering seemingly more materialist, or non-committal as to the existence of an external material world, versions. This article examines such claims and exposes their deficiencies. A quantum-Mind-Only Yogācāra-Vijnanavada perspective is explored.

Keywords: Engaging Buddhism, consciousness-only, mind-only, three-nature theory, quantum consciousness potentiality, quantum Darwinism, ground-consciousness, store-consciousness, collective karma, quantum mind-created reality.

The distinguished philosopher Jay L. Garfield has an impressive academic profile, having Professorships in both Philosophy and Tibetan Studies. He is also a member of a group of philosophers who call themselves “The Cowherds.” This appellation is derived from a comment made by the seventh century Indian Buddhist practitioner-philosopher Chandrakirti indicating that ‘conventional truth/reality’ (saṃvṛti-satya – also translated as ‘seeming’, ‘relative’, and ‘everyday’ truth or reality, as opposed to paramārtha-satya, ‘ultimate truth/reality’) is the way that the world is experienced by unenlightened people such as cowherds; ultimate reality, according to Buddhist philosophy, of course, is the way that reality is experienced by enlightened beings. The ‘Cowherds’ describe themselves as being:

… scholars of Buddhist studies … [who] are united by a commitment to rigorous philosophical analysis as an approach to understanding Buddhist metaphysics and epistemology, and to the union of philology and philosophy in the service of the greater understanding of the Buddhist tradition and its insights.¹

There are a couple of things one can say about this project at the outset. There are many impressive practitioners who are trained in both the meditative practices and the philosophical perspectives of the various Buddhist traditions, as opposed to people who are only academic “scholars.” Contemporary Buddhist practitioners such as Dzigar Kongtrul Rinpoche, Dzongsar Khyentse Rinpoche, and Ringu Tulku, to mention just three I have had experience of, clearly have degrees of realization which derives from consistent and committed meditation practice, as well as profound knowledge of Buddhist

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philosophical/metaphysical perspectives, perspectives that perhaps become more understandable with some degree of meditation competence. Teachers like these are fully conversant with the Western world and speak fluent English and therefore are able to explain Buddhist philosophy, which has been handed down through a line of teachers within various traditions, clearly for a Western audience. In the light of this it seems perhaps slightly incongruous for Western “scholars” to decide that they are required to sort out what various Buddhist philosophical perspectives really amount to. And the notion that a Western analytic philosophical approach is going to get the job done properly is, as we shall see, questionable. The fact that the various ‘cowherds’ come to significantly different conclusions points to this conclusion.

Furthermore, there are a few significant Western scholar-practitioners, working within Buddhist traditions under the guidance of accomplished Buddhist teachers, who are able to articulate Buddhist metaphysical viewpoints with great precision and clarity. To my mind a remarkable contemporary example of such a scholar-practitioner is Karl Brunnhölzl, who works alongside respected Tibetan teachers such as Dzogchen Ponlop Rinpoche. Brunnhölzl has translated and written introductions and commentaries to important Buddhist texts, and his brilliant elucidations of such texts are clearly in line with traditional Buddhist perspectives, whereas some of the accounts presented by some of the ‘cowherds’ are a little misleading. In this article I will primarily be concerned with Garfield’s account of Yogācāra-Vijnanavada psycho-metaphysics, which, when viewed from the perspective of ‘canonical’ Yogācāra-Vijnanavada, is both bizarre and misleading.

It must be said that Garfield is an academic who has done a great deal of significant work in the field of Buddhist Studies, translating texts and writing and editing several books. And he should be heartily congratulated for championing the view that Buddhist philosophy should be treated seriously by Western philosophers:

> People in our profession are still happy to treat Western philosophy as the “core” of the discipline, … So, for instance, a course that addresses only classical Greek philosophy can be comfortably titled “Ancient Philosophy,” not “Ancient Western Philosophy,” and a course in metaphysics can be counted on to ignore all non-Western metaphysics…. It is simply irrational to ignore most of world philosophy in the pursuit of truth, and immoral to relegate any literature not written by Europeans as somehow beneath our dignity to read.²

Such an attitude is indeed refreshing. However, the fact that Garfield, through a misguided use of a Western ‘analytic’ philosophical attitude, misrepresents a core Buddhist philosophical perspective is, obviously, less laudable. The fact that someone holding a weighty list of academic positions, and a significant stature within Buddhist Studies, manages to misconstrue and misrepresent the Yogācāra-Vijnanavada (yoga/meditation-practice-consciousness-only-vehicle), which is the basis for what later became the Tibetan school of Chittamatra or Mind-Only Buddhism, is disturbing.

The Yogācāra-Vijnanavada school of Buddhist psycho-metaphysics developed in Indian Mahayana (Great-Vehicle) Buddhism around the fourth century C.E., largely as a result of the metaphysical explorations of the practitioner-philosophers Vasubandhu and Asanga. The term Yogācāra indicates that the exponents of this school considered the practice of meditation was a central aspect of the Buddhist path ('yoga' here refers to meditation, not physical postures), and the term Vijnanavada, ‘consciousness-way’, indicates that the metaphysics associated with this school asserts the primacy of consciousness in the process...
of reality. This viewpoint was in contrast to the Madhyamaka, Middle-Way, school which held that it was mistaken to ascribe either existence or non-existence to ultimate reality. As the philosopher Roger Zim points out:

The fundamental doctrine of the Yogacara school is “that all phenomenal existence is fabricated by consciousness.” Consciousness is the basis of all activities from birth to attaining enlightenment; “...all is based upon the coming into being and the ceasing to be of consciousness, i.e., of distinctions in the mind.” Consciousness is the distinction making activity of the mind, both in making and having distinctions, including the states we consider the conscious as well as the unconscious. Consciousness, in making distinctions between self and other, becomes the subject which treats everything else as object. Consciousness itself is real. It exists as a series, or stream, of successive momentary awareness of events, each immediately replaced by consciousness in the next moment. Consciousness “has no substantiality...and is dependent on the consciousness of the preceding instant.”

Thus the foundational feature of Yogacara-Vijnanavada would seem to be that all phenomena, including the appearances of apparently external objects, ultimately derive from the activities of consciousness.

However, the extent to which consciousness determines the process of reality, in particular the status of apparently external objects, has for Western philosophers become a matter of dispute. The most prevalent understanding of Yogacara-Vijnanavada is that the process of reality is in somehow entirely orchestrated by mind:

The basic ontological question - what is there in the world? - is answered unambiguously by the Indian Yogacara theorists of the classical period: they say there is nothing but mind (cittamatra).

As Brunnhölzl writes regarding the views of the 4th century Yogacara practitioner-philosopher Vasubandhu:

The beginning of Vasubandhu’s Vimsatikavrtti says:

In the mahayana, the three realms are presented as being mere cognizance (vijñaptimatra). The sutras say, “Oh sons of the Victor, all three realms are mere mind (cittamatra).” ... “Mere” has the meaning of excluding referents.

All this is mere cognizance
Because of the appearance of nonexistent referents,
Just like the seeing of nonexistent strands of hair
In someone with blurred vision.

Like many other Yogacara texts, Vasubandhu’s indeed continues by denying the existence of material outer objects...5

This view is sometimes termed ‘Idealist’, although the details of Yogacara-Vijnanavada (henceforth denoted simply by ‘Yogacara’) are much more complex and detailed than most Western notions of Idealism.

However, Garfield, whilst sometimes conceding an Idealist aspect of the Yogacara worldview, also suggests that it does not necessarily indicate that consciousness is involved in the actual production of the appearance of the apparently material external world. Thus in his discussion of the famous ‘brain in a vat’ scenario in relation to Yogacara he writes:
Vasubandhu is an important partner in this conversation – that this conclusion is not necessarily idealistic. It is neither to deny the materiality of the brain, nor the vat, nor to deny the reality of the world to which I have only unmediated access.6

And:

Vasubandhu … calls upon us to challenge neither the reality nor the illusory character of the objects we perceive, but rather our instinctive view that they, we, and our experience of our own being are given to us just in the way that they exist, or that anything ever could be.7

In other words there may be objects ‘out there’ but we cannot know their true and ‘real’ nature. The Buddhist scholar Georges B. J. Dreyfus writes concerning this kind of approach to Mind-Only:

Modern scholars have tried to come to terms with this difficult topic. One interpretation is that this system is Idealist. Another view is that this is a misinterpretation of a philosophy that emphasizes the mind dependency of perceptual elements but remains neutral as far as the status of external objects are concerned. I have not seem anything in the Tibetan tradition supporting the latter interpretation.8

This would mean that Garfield’s claim would amount to indicating significant incompetence on the part of Tibetan scholars. But, as we shall see, the notion that the Yogācāra perspective is neutral concerning the nature of the apparently external material world is in the mind-only of some misguided Western philosophers.

Examples of misleading presentations of the Yogācāra perspective are provided by Garfield’s account of Yogācāra psycho-metaphysics in general and his treatment of Vasubandhu’s magic elephant analogy in particular. This analogy comes towards the end of Vasubandhu’s Yogācāra text Trisvabhavanirdesa (Verses Explaining the Three Natures). Garfield proffers his idiosyncratic vision of Yogācāra both in his recently published book Engaging Buddhism: Why it Matters to Philosophy and in an essay entitled ‘I am a Brain in a Vat (Or Perhaps a Pile of Sticks by the Side of the Road)’, this essay is contained in a recently published collection of essays Madhyamaka and Yogācāra: Allies or Rivals? Garfield has translated and interpreted Vasubandhu’s thirty-eight verses, as have several others, including Brunnhölzl, and it is interesting to compare the difference between Garfield’s version, concocted with the help of an analytical philosophical attitude, and a correct reading of Yogācāra. It is also illuminating to view the Yogācāra, consciousness-mind-only viewpoint presented by Vasubandhu in the context of modern quantum discoveries, rather than analytic philosophy. We shall explore the possibility of a quantum-Yogācāra, which is in line with Mensky’s quantum psycho-metaphysical perspective, later in this article.

We shall examine Garfield’s approach after a fairly comprehensive exploration of the Yogācāra worldview. The ‘cowherds’ are not the first academics to subject Buddhist philosophy to Western philological and philosophical treatment. The philosopher William S. Waldron focuses on the Yogācāra and its dialogue with modern thought, and he writes in a review of a book titled Yogācāra Phenomenology9 by another Western academic, Dan Lusthaus, that:

There is still no consensus in the West as to how to best interpret, or even approach, the vast collection of Buddhist teachings and practices falling under the rubric ‘Yogācāra.’ A recently completed annual seminar at the American Academy of Religion, for example, hosted an impressive array of papers on an extensive range of
topics for five years running without, however, finally addressing exactly ‘What is, or isn’t, Yogācāra’?10

What this means, of course, is that there is no consensus amongst Western academic scholars of Buddhism. The Western academic practitioner of Buddhist Studies Dan Lusthaus, in particular, has forcefully asserted, in the book reviewed by Waldron and also in an article ‘What is and isn’t Yogācāra’, that Yogācāra does not involve the claim that the primary ontological nature of the process of reality is of the nature of mind or consciousness. In his article Lusthaus writes that:

Yogācārin’s sustained attention to issues such as cognition, consciousness, perception, and epistemology, coupled with claims such as “external objects do not exist,” has led some to misinterpret Yogācāra as a form of metaphysical idealism. They did not focus on consciousness to assert it as ultimately real (Yogācāra claims consciousness is only conventionally real since it arises from moment to moment due to fluctuating causes and conditions), but rather because it is the cause of the karmic problem they are seeking to eliminate.

And that:

The school was called Yogācāra (Yoga practice) because it provided a comprehensive, therapeutic framework for engaging in the practices that lead to the goal of the bodhisattva path, namely enlightened cognition. Meditation served as the laboratory in which one could study how the mind operated. Yogācāra focused on the question of consciousness from a variety of approaches, including meditation, psychological analysis, epistemology (how we know what we know, how perception operates, what validates knowledge), scholastic categorization, and karmic analysis. Yogācāra doctrine is summarized in the term viññapti-mātra, “nothing-but-cognition” (often rendered “consciousness-only” or “mind-only”) which has sometimes been interpreted as indicating a type of metaphysical idealism, i.e., the claim that mind alone is real and that everything else is created by mind. However, the Yogācārin writings themselves argue something very different. Consciousness (viññāna) is not the ultimate reality or solution, but rather the root problem. This problem emerges in ordinary mental operations, and it can only be solved by bringing those operations to an end. Yogācāra tends to be misinterpreted as a form of metaphysical idealism primarily because its teachings are taken for ontological propositions rather than as epistemological warnings about karmic problems. The Yogācāra focus on cognition and consciousness grew out of its analysis of karma, and not for the sake of metaphysical speculation. Two things should be clarified in order to explain why Yogācāra is not metaphysical idealism: 1. The meaning of the word “idealism”; and 2. an important difference between the way Indian and Western philosophers do philosophy.11

There is much that is completely correct in Lusthaus’ perspective. It is indeed true that the Yogācāra perspective held that viññāna, which is dualistic consciousness, is a “root problem” and did not assert that dualistic consciousness was the ultimate ontological nature of the process of reality. It is also correct that Yogācāra is not ‘metaphysical idealism’ as this term is generally understood in Western philosophy. However, this still leaves the issue of what the Yogācāra position is regarding the ultimate nature of the process of reality. Lusthaus claims that “There is no Universal collective mind in Yogācāra,” however, we shall see that Yogācāra indicates that the ultimate nature of the process of reality must be of the nature of mind.
The first essential point concerning Yogācāra psycho-metaphysics is that it indicates that the world is experience-only, or consciousness-only (vijñanavada), cognition-only (vijñapti-mātra), or information-only and therefore outer, external, apparently material objects do not exist in the manner that they appear to, they are akin to collective illusions appearing, in a coordinated and coherent way, within the mindstreams of all sentient beings. The reason for the coherent and coordinated appearances within a group of sentient beings is the fact of collective karma. According to fully developed Yogācāra psycho-metaphysics ‘mind’ or ‘consciousness’ is a field – the cognitive field of the buddhas - (analogous to a quantum field, as we shall see) of awareness and experience energy-potentiality which can take various forms. In particular there are two levels of mind/consciousness, as Vasubandhu indicates (the following verses from Vasubandhu’s Trisvabhava-nirdesa are Garfield’s translation):

Because it is cause and effect,
The mind has two aspects.
As the foundation consciousness it creates thought;
Known as the emerged consciousness it has seven aspects.13

The ‘foundation consciousness’ or ‘store consciousness’, the alayavijnana, is an undifferentiated level of experience/awareness potentiality which underlies the manifested levels of consciousness which ‘operate’ within sentient beings. When this foundation level consciousness ‘emerges’ in sentient beings it manifests as “seven aspects.” These aspects are the consciousnesses which are associated with the various sense faculties: sight, hearing, smell, taste, touch and two mental faculties, which are ‘thought’ and ‘self-awareness’, the latter is also termed the ‘afflicted consciousness’ because the sense of self-identity is actually, according to Yogācāra psycho-metaphysics, delusional.

The ‘foundation consciousness’, the alayavijnana, is also called ‘store consciousness’ because it ‘stores’ impressions or ‘seeds’ which are generated by the perceptions, thoughts and actions of all sentient beings. In other words, all the activities of the seven emergent consciousnesses leave traces in the foundation consciousness, and on the basis of these traces the activities of future emergent consciousnesses are conditioned. Vasubandhu’s verses describe this:

The first [the foundation consciousness], because it collects the seeds
Of suffering is called “mind.”
The second [the emergent consciousnesses], because of the constant emergence
Of the various aspects of things is so called [i.e. ‘mind’].

One should think of the illusory non-existent
As threefold:
Completely ripened, grasped as other,
And as appearance.
The first, because it itself ripens,
Is the root consciousness,
The others are emergent consciousness,
Having emerged from the conceptualization of seer and seen.14

The “foundation” or “root” consciousness, then, “collects seeds” which then “ripen” as future “emergent” consciousnesses. The “appearances” experienced through the functioning of the emergent consciousnesses are “illusory” and “non-existent,” furthermore, they are “grasped” as being “other.” This means that they are “conceptualized” as “seer and seen,” which means they appear ‘dualistically’, in the guise of subject and object. This is the continuous cycle of
samsara, the conditioned and dissatisfactory realm of cyclic dualistic experience. Within this cycle, the universal law of karma-vipaka, cause and effect, operates; karmic ‘seeds’ (bijā) will produce similar future effects. Furthermore this universal karmic law operates on all aspects of the process of reality, including the appearance of the collective material world:

…since beginningless time we have been perceiving sights, sounds, smells, tastes and bodily sensations and these perceptions have been creating imprints or latencies in the ground consciousness. Habituation of having experienced a certain visual form will create a latency for that very form. Eventually, that latency will manifest from the ground consciousness as a visual form again, but it will be perceived as external to ourselves.15

Within this process there are aspects which are common to groups of sentient beings because of common karma, like the apparently ‘material’ world which is common to humans and animals, and also individual aspects:

The samsaric appearances that arise from these causes and conditions are of two kinds: common and individual. Some appearances are the result of identical causes created by many beings, so that something will be seen by everyone in common, such as everyone in a particular room seeing that it has two pillars. However, there are certain individual causes and conditions which result in beings having their own individual experiences of happiness and discomfort. … These different perceptions are due to different latencies that have been laid down in the ground consciousness.16

The ‘foundation consciousness’ (alayavijnana or “ground consciousness” in the above quotes) operates within the overall space of the dharmadhatu, the ‘space of phenomena’. When a sentient being becomes enlightened the alayavijnana dissolves and the ultimate ‘truth body’ of reality – the dharmakaya manifests. The dharmadhatu is the eternal backdrop of potentiality within which all the phenomena of samsara and nirvana take place. Samsara is the unenlightened perspective of conditioned and dissatisfactory cyclic existence, and nirvana is the extinguishing of samsara and the dissolution of the alayavijnana which is the basis of samsara. When the alayavijnana dissolves, the qualities of the dharmadhatu shine forth as nondual wisdom, jnana. The term ‘jnana’ refers to the profound nondual awareness-wisdom of the process of reality, the term vi-jnana indicates divided dualistic consciousness (the prefix ‘vi’ indicates a cut) which derives from jnana.

The opening verses of Vasubandhu’s text which outlines the three natures are as follows (Garfield’s translation):

The imagined, the other-dependent and
The consummate:
These are the three natures
Which should be deeply understood.

Arising through dependence on conditions and
Existing through being imagined,
It is therefore called other-dependent
And is said to be merely imaginary.

The eternal non-existence
Of what appears in the way it appears,
Since it is never otherwise,
Is known as the nature of the consummate.
If anything appears, it is imagined.
The way it appears is as duality.
What is the consequence of its non-existence?
The fact of non-duality!

What is the imagination of the non-existent?
Since what is imagined absolutely never
Exists in the way it is imagined,
It is mind that constructs that illusion.¹⁷

The next verses are those we have covered above, which elucidate the structure of mind, or consciousness, as operating at two levels, the ‘foundation/store/ground-consciousness’ (alayavijnana) and the dualistic consciousnesses which ‘operate’ within sentient beings. The last line in the above quote clearly indicates that the functioning of the alayavijnana “constructs that illusion.” The three natures, as translated by Garfield, are: parikalpita, or ‘imagined nature’, paratantra, or ‘dependent nature’, and parinispanna, or ‘consummate nature’. These terms are translated differently by others. The above verses, including those indicating the two levels of mind, as translated by Brunnhötlzl are:

The imaginary, the other-dependent
And the perfect as well-
The three natures are held to be
The profound object to be understood by the wise.

What appears is the other-dependent
And the way that it appears is the imaginary,
Since it comes about through being subject to conditions
And since it exists as mere imagination.

The fact of the invariable absence
Of the way it appears in what appears
Is known as the perfect nature,
Since it is never otherwise.

What appears here? The imagination of what is non-existent.
How does it appear? By way of having the character of duality.
What is its nonexistence with that duality?
The very nature of nonduality in it.

What is the imagination of the nonexistent here?
It is the mind that imagines in certain ways what does not exist,
But its referents which it imagines like that,
Are absolutely never found in these ways.

Through being either cause or result,
The mind is held to be twofold:
The consciousness called “alaya”
And the one called “operating,” which is sevenfold.

The first is called mind, since it is accumulated
By the seeds of the latent tendencies of afflictions,
While the second is called mind
Since it operates under various aspects.

In brief, this false imagination
Is considered as threefold:
As maturational; likewise, as having characteristics;
And the other as involving appearances.

The first refers to the root-consciousness,
Since its character is the maturation of latent tendencies
The other refers to the operating consciousness,
Since it functions as cognition with the duality of seer and what is seen.18

Brunnhölzl, then, translates the three natures as 1) the imaginary, 2) the other-dependent and
3) the perfect, all consistent with Garfield’s terminology. Brunnhölzl elucidates the term ‘other-dependent’ by indicating that:

The “other” in “other-dependent” refers to the latent tendencies of various appearances of subject and object. Which in their entirety make up the alaya-consciousness.19

This identification of the other-dependent nature with the latent tendencies of dualistic appearances within the alayavijnana is validated by both analysis and other commentaries. Brunnhölzl, in his work Mining for Wisdom within Delusion, which is an extensive exposition of the Yogācāra text Dharmanirmahavibhaga (Distinguishing Phenomena and the Nature of Phenomena) as well as an exploration of both Indian and Tibetan commentaries, shows that this identification is natural and is made by all commentaries, Sthiramati for example:

…once the fundamental change of the alaya-consciousness (the dependent nature) occurs, the perfect nature is observed as the aspect of the freedom from duality, just like seeing a rope when one no longer sees a snake.20

The situation, however, is subtle and needs to be understood with subtlety. The alaya-consciousness is the dependent nature operating dualistically and thereby seemingly ‘creating’ the illusion of the dualistic world of the manifested dualistic consciousnesses. When the “fundamental change,” which takes place within enlightenment, occurs, the dualistic appearances of the imaginary nature dissolve, and thereby the dependent nature appears to ‘transform’ into the perfect (consummate) nature. What appears to be a snake (the imaginary) is seen to be a rope, the ‘rope’ here represents the other-dependent operating within the ‘ultimate’ or ‘consummate’ nature. However, this is not a case of the imaginary being ‘taken out’, because it was never there as something extra, and there was no actual transformation from one thing into another. Brunnhölzl writes brilliantly about this:

Thus, the three natures are not three different “things.” It is not through taking away one (the imaginary nature) from the other (the dependent nature), that the third (the perfect nature) is obtained. Rather, Yogācāra takes the other-dependent nature as the experiential ground for a dynamic disillusioning and refining the way we see ourselves and the world, with the imaginary nature and the perfect nature being the two poles of mistaken and pure perception, respectively, right within that experiential ground. The other dependent nature stands for the continuity of experience, which is impure when blurred by the superimpositions of the imaginary nature and pure or perfected when the imaginary nature has been seen through and let go. However, since the realization of the perfect nature is an experience as well and not something abstract or just some nothingness … the other-dependent nature in its pure aspect is the perfect nature. … “other-dependent nature” is just a term for the compound … of the imaginary nature and perfect nature, which points to the underlying experiential continuity of a mind stream that becomes increasingly aware of its own true nature.21
So Brunnhölzl characterizes the Yogācāra ‘three natures’ doctrine as primarily having to do with the process by which an individual mind-stream transforms its experiential continuum in order to become “aware of its own true nature.”

Brunnhölzl’s approach is in line with the presentation of Yogācāra philosophy by Gadjin M. Nagao:

This one unchanging world is originally neither contaminated nor purified, but rather neutral … However, insofar as our interaction occurs directly or instinctively, like an animal, without reflection or self-consciousness – that is, in so far as we are not yet enlightened to its reality but remain in a deluded state – we speak of this world as a world of the imagined nature; it is an imagined world. Through our cognitions, or discriminations, or intellect, we are always projecting some kind of imagination … This projection of false imagination changes or contaminates the world … The sages and enlightened ones also live in this one, unchanged world. But, because they are enlightened and are free of all false imagination and attachment, for them, the world is no longer imagined and contaminated; it is pure and consummated.22

Thus, we see that the core Yogācāra delineation of the structure of the process of reality can be delineated as a common world, which is not “unchanging” in its details, although the ‘stuff’ it is made of (dharmata) is unchanging in essence. This ‘world’ can be experienced in two different ways. The common world is the paratantra, the ‘dependent’ or ‘other-dependent’ nature, which is the stream of ‘dependently’ or ‘other-dependently’ originated causal realm of experiential possibility. As Brunnhölzl indicates most people experience the common world of the paratantra, the dependent nature, through the mistaken projections of the parikalpita, the mistaken imaginary nature which is projected onto or into the dependent nature. A central and pervasive feature of the imaginary projection is the appearance of svabhava, the deep-rooted immediate experience of entities as having their own internal, independent cut-off core of ‘self-being’ or ‘inherent-existence’. The paratantra, the ‘other-dependent nature’ is an interconnected and interpenetrating field of causes and conditions, but when it is viewed through the projection of the imaginary nature it is experienced as being made up of independent, separate entities. And it is through a process of transformation of consciousness and mind-streams that Buddhist practitioners are able to withdraw the imaginary projection in order to experience the dependent nature in its consummated, perfected or perfect nature – the parinispanna.

Lusthaus uses the terms “the conceptually constructed realm” for the ‘imaginary nature’, “the realm of causal dependency” for the ‘other-dependent nature’ and “the perfectional realm” for ‘the perfected nature’. He writes:

The conceptually constructed realm is the erroneous narcissistic realm in which we primary dwell, filled with projections we have acquired and habituated and embodied. Paratantra (lit. ‘dependent on other’) emphasizes that everything arises causally dependent on things other than itself (i.e. everything lacks self-existence). The perfectional realm signifies the absence of svabhava (independent, self-existent, permanent nature) in everything. When the causally dependent realm is cleansed of all defilements it becomes “enlightened.”23

So Lusthaus’ version of the meaning and relationships of the three natures is consistent with those of Brunnhölzl and Nagao. The ‘other-dependent’ realm of the ground/foundation/store-consciousness, wherein the seeds of future dualistic experiences are stored, is the foundational nature. But it has two possible modes of experience. The first
mode is that which imputes or projects the solidity and inherent existence of the imaginary nature into or onto the other-dependent realm, this is the unenlightened mode. When the fictions of the imaginary nature dissolve then the enlightened mode of the perfected, perfect or consummate nature comes into being. This psycho-existential configuration is most precisely captured in Brunnhölzl’s translation:

What appears is the other-dependent
And the way that it appears is the imaginary…

It is the ‘other-dependent’ nature, which is the alayavijnana, the ground-consciousness, which actually does the appearing, and it produces appearances which appear as if a real, external, independent world of materiality were to stand over against an internal subjectivity. However, although the dualistic appearance is very powerful and persuasive, this “way it appears” is in actuality false, “the way that it appears is the imaginary.” The perfect nature manifests when the fact that the imaginary is imaginary and an illusion is directly seen:

The fact of the invariable absence
Of the way it appears in what appears
Is known as the perfect nature,
Since it is never otherwise.

This Yogācāra insight is actually a restatement, with added surrounding context and elucidation, of Madhyamaka emptiness – sunyata, the apparent external solidity of the apparently material world is in actuality not there. All phenomena, internal and external, lack inherent existence, or svabhava. However, it is also the case that all the phenomena of the apparently material world appear to have independent internal self-existence. The fact that this appearance of internal self-existence and solidity is an appearance, and not reality, means that the reality of the appearance is absent from reality.

Lusthaus’ use of the phrase “the conceptually constructed realm” for the parikalpita, ‘the imaginary nature’, points to an important issue. The term ‘parikalpita’ literally means “fully conceptualized,” so Lusthaus’ translation is, on the face of it, closer to the original meaning. However, Brunnhölzl points out that the term “kalpana,” from which “kalpita” is derived:

…is usually translated as “thought” or “conceptual thinking,” but basically refers to the deluded constructive activity of mind, which produces all kinds of dualistic appearances and experiences.24

The hugely significant issue, however, is just how deep and efficacious the constructive activity of mind is? Lusthaus, for example, denies that the Yogācāra perspective asserts the non-existence of external entities:

Yogācāra tends to misinterpreted as a form of metaphysical idealism primarily because its teachings are taken for ontological propositions rather than epistemological warnings about karmic problems. The Yogācāra focus on cognition and consciousness grew out of its analysis of karma, and not for the sake of metaphysical speculation.25

And with regard to the material world he writes that:

…questions about the ultimate reality of non-cognitive things are simply irrelevant and useless for solving the problem of karma. … Yogācārins emphasize that categories such as materiality (rupa) are cognitive categories. “Materiality” is a word for the colors, textures sounds. Etc. … that we experience in acts of perception, and it
is only to the extent that they are experienced, perceived and ideologically grasped, thereby becoming objects of attachment, that they have karmic significance. Lusthaus is suggesting, then, that the ‘existence’ or ‘non-existence’ ‘out there’, beyond our “cognitive categories” is irrelevant, all the Yogācārins are concerned with, according to Lusthaus, is the structures of cognition and consciousness which we throw over, so to speak, whatever, is, or is not, “out there.” Lusthaus calls this position “epistemological idealism” as opposed to ontological/metaphysical idealism. On this view, whether there is, or isn’t anything “out there” is irrelevant. Lusthaus’ perspective is, however, internally contradictory and incoherent. He tells us that Yogācārins are only concerned with its “analysis of karma,” and not interested in “metaphysical speculation.” What he seems to miss, however, is that the Yogācāra analysis of karma, which involves the notion of the ground consciousness (alayavijnana) as a deep layer of consciousness that carries seeds of potentiality across lifetimes, automatically has the ontological-metaphysical implication that the material world must be a production of the alayavijnana. All experiences which (unenlightened) sentient beings are subject to are the result of karma, their previous actions, and this must extend to experiences of materiality. It follows that experiences of materiality constitute what appears to be the material world, if there were a ‘truly material’ realm beyond our experience it would be beyond the influence of karma, and this would mean that this ‘real’ material realm would have no karmic influence on any sentient being’s world, therefore natural disasters such as earthquakes, floods and so on would have to be considered as random, not karmic, events, which is contrary to Buddhist doctrine.

In this context the Buddhist practitioner and teacher Alexander Berzin was asked:

...earthquakes are the inevitable outcome of our planet’s having arisen as it is; and it has arisen as it is as the result of the very broad collective karma of all the beings who have ever lived on this planet. Could you comment on this?

And he replied:

Karma, or more specifically, positive or negative karmic forces and karmic tendencies, whether individual or collective, ripen into various types of results. One of these results is a dominating result. A dominating result is our experiencing of the type of environment or society in which we are born or enter, and the way it treats us, or objects such as our possessions, and what happens to them.26

If karma is ubiquitous in forming the experiences of all sentient beings then whatever the ‘material’ world is ultimately made up of must ultimately be orchestrated by the ground-consciousness. It would be a very odd situation in which a group of people were having earthquake experiences generated by their karmic cognitive categories of ‘materiality’ if the ‘real’, so to speak, unknowable “out there” world of materiality was not actually quaking. At this point it is worth quoting a conclusion the much admired twentieth-century physicist John Wheeler came to on the basis of his understanding of quantum phenomena:

Directly opposite to the concept of a universe as machine built on law is the vision of a world self-synthesized. On this view, the notes struck out on a piano by the observer participants of all times and all places, bits though they are in and by themselves, constitute the great wide world of space and time and things.27

Wheeler suggested that the material world was constructed by the perceptions of all the sentient beings, the “observer participants,” who inhabit or have inhabited the universe. This notion he graphically represented by his ‘self-perceiving’ universe graphic image shown in
 Engelng Buddhism with a False Imagination

Wheeler made many such dramatic statements and indications. In 1978 he wrote that:

Figure 1

The universe does not ‘exist, out there,’ independent of all acts of observation. Instead, it is in some strange sense a participatory universe. And speaking in April 2003 to the American Physical Society, he made the following remarkable, almost mystical, sequence of remarks:

- The Question is what is the Question?
- Is it all a Magic Show?
- Is Reality an Illusion?
- What is the framework of the Machine?
- Darwin’s Puzzle: Natural Selection?
- Where does Space-Time come from?
- Is there any answer except that it comes from consciousness?
- What is Out There?
- ‘Tis Ourselves?
- Or, is IT all just a Magic Show?

Wheeler, and quite a few other physicists, have been ‘forced’ to the conclusion that in some way the perceptual activities of all sentient beings determines what appears to be an external material world. As we shall see in more detail later, quantum theory actually supports a Yogācāra-like ‘idealistic’ or ‘idea-ist’ psycho-metaphysical worldview: Yogācāra is idealism in the sense that it denies the ontological primacy of the material world and asserts that the process of reality is a matter of mind-stuff, so to speak.

Wheeler asked, on the basis of his profound understanding of quantum physics, whether what appears to be a material world inhabited by sentient beings might be a “Magic Show.” Vasubandhu, a little under two thousand years ago, answered in the affirmative with his magic elephant analogy. The analogy involves a magician who by means of a magic spell, or ‘mantra’ is able to make a block of wood, or pile of sticks, appear in the form of an elephant. People deceived by the appearance might consider that an elephant really is “out there.” The magician, of course, knows that it is just an appearance. Here are the stanzas from Vasubandhu’s Thirty Verses as translated by Brunnhöllzl:
Something magically created through the force of a mantra
May appear as if it had the character of an elephant,
But there is merely an appearing aspect there
And no elephant at all exists.

The elephant is the imaginary nature,
Its appearance is the other-dependent,
And the nonexistence of the elephant there
Is held to be the perfect.

Likewise, the imagination of what is non-existent
Appears from the root-mind as having the character of duality-
There is absolutely no duality there,
But a mere appearance does exist.

The root-consciousness is like the mantra,
Suchness is regarded as similar to the wood,
Imagination is considered like the appearing aspect of the elephant
And duality is like the elephant.

Once the true reality of things is realized,
Corresponding to the order of the [three natures]
The processes of knowing, relinquishment, and attainment
Are held to be simultaneous.

Here, knowing is nonobservation,
Relinquishment is held to be nonappearance,
And observation without characteristics
Is attainment, direct realization.

Through the nonobservation of duality,
The dualistic appearing aspect vanishes,
And since that vanishes, the perfect-
The nonexistence of duality-is discovered.

This is just as the nonobservation of the elephant,
The vanishing of its appearing aspect,
And the observation of the wood
In the magical illusion are simultaneous.\(^{30}\)

The following, and final stanzas indicate that when the magic illusion is ‘seen through’, and thereby disempowered, the reality of the ultimate sphere of the \textit{dharmadhatu}, the spacious sphere of the ground of all phenomena is observed. This is the realm of “suchness” (\textit{tathata}), which in Vasubandhu’s analogy corresponds to the wood. \textit{Tathata} is also termed \textit{dharmata} which is the ultimate immaterial nature of all phenomena. \textit{Dharmata} is the ultimate immaterial ‘stuff’, using this term very loosely, which in various configurations make up all \textit{dharmas}, all phenomena.

In Vasubandhu’s analogy the mantra, which corresponds to the root-consciousness or alayavijnana, operates upon the wood, which is suchness, the ultimate immaterial nondual-awareness of reality. This interaction results in the appearance of the elephant, which is the appearance of a world of duality – apprehenders and apprehended, subjects and objects. Furthermore, these dualistic appearances appear to be very ‘real’ and are taken, by unenlightened beings, to be real in the way that they appear, the imaginary nature is taken to
be real. And because of this, the reality of the ultimate nature of suchness is not seen, not realized. However, “once the true reality of things is realized” the illusion dissolves and the “wood” of the ultimate reality of the nondual realm of tathata, or suchness, is immediately experienced and known.

The two penultimate stanzas of Vasubandhu’s exposition are as follows:

Through the observation of it being merely mind,
A knowable object is not observed.
Through not observing a knowable object,
Mind is not observed either.
Through not observing both,
The dharmadhatu is observed.
Through observing the dharmadhatu,
Mastery is obtained.31

These verses assert that when a practitioner fully comprehends, directly and experientially through profound meditation, that external dualistic phenomena are not as they appear to be, i.e. independent ‘material’ objects, but are actually collective projections of minds, then the subjective side of the duality dissolves as well. The term ‘mind’ refers to dualistic mind, and this dualistic mind dissolves into the non-dual experiential realm of the dharmadhatu. And the experiential nature of the dharmadhatu is the nondual dharmadhatu-jnana (wisdom-awareness). This nondual internally self-aware, self-luminous ground of dualistic appearances and dualistic mind (vijnana) is the fundamental nondual and insubstantial mind-energy-potentiality-awareness of the process of reality. As an advanced Yogācāra practitioner writes:

…from the moment an individual attains awakening, the absolute Reality that is the natural state of abiding is realized, and whatever exists is seen to be contained without duality in the uncreate Clear Light of the ground. When this is realized, then the practitioner recognizes that even though various phenomena arise and pass away on a continuous basis, all such phenomena have the one same flavour throughout, which is the single taste of existing in awareness. Were there no such awareness, no entities would exist … When yogis realize the extra-temporal natural state of mind stripped naked as mere awareness, it is then that consciousness dawns no longer as consciousness but as gnosis (jnana, ye-shes) or ‘non-dual knowing.’ All phenomena dawn as innately pure. Thus the many synonyms, “basic goodness, Absolute Totality, Mahamudra, or the mind of uncreate Clear Light,” refer not to the mind (sems) as such but to the essence of mind (sems-nyid), or mind in its original natural state …32

And also:

The metaphysical doctrine of the ancient Yoga tradition puts forth an understanding of the creation, progress and eventual destruction of the Universe that seems surprisingly modern, to the extent in which it agrees with leading edge advances in science, quantum mechanics and cosmology. Those who go deeply into this subject, will find this doctrine rooted in a profound understanding of a great mystery called PARAMĀRTHA, which in Indian philosophy means ‘the Absolute’, devoid it is said of all attributes, and essentially distinct from manifested finite Being. The manifestation (pravrtti) and re-absorption of the Universe, or domain of finite Being, and how the latter relates to the transcendent infinitude of the Absolute has been
central to Yogacara inquiry from the beginning of its history … It is believed that by means of proliferation (prapanca, differentiation), the innate essence of being in three forms (trisvabhava) manifests or is transformed, as it were, into active mentation in the act of Creation. This is then explained as the coming into being of alaya-vijnana, universal or cosmic consciousness, which is a concept that has also been held in Western philosophy by many great thinkers, from Plato, Plotinus and others…

Here is the true meaning of Yogacara-Chittamatra. And it turns out that there are in a sense two levels of mind-only. The first is the dualistic level of vijnapti-matra, or ‘cognition-only’, the dualistic world of subjects and objects are a matter of repeated and continuous cognition and perception, external objects are appearances which ultimately do not exist independently of perceiving minds. Once the illusion of this cognitive process is penetrated, the second, deeper level of insubstantial (as opposed to the substantialist Chittamatra perspective) nondual absolute mind-awareness becomes apparent. From this perspective it becomes apparent that all levels of the process of reality are transformations of mind-awareness-consciousness. The paratantra, which in unenlightened mode is also the alayavijnana, can be experienced as dualistic, whereby it manifests as the imaginary, or it may be experienced nondualistically, in which case the paratantra is experienced as it really is, as an illusory play of appearances within the perfect nature of the nondual experiential realm of the dharmadhatu. As the ninth century Zen Patriarch Huang Po declared:

This pure Mind, the source of everything, shines forever and on all with the brilliance of its own perfection. But the people of the world do not awake to it, regarding only that which sees, hears, feels and knows as mind. Blinded by their own sight, hearing, feeling and knowing, they do not perceive the spiritual brilliance of the source substance. If they would only eliminate all conceptual thought in a flash, that source substance would manifest itself like the sun ascending through the void and illuminating the whole universe without hindrance or bounds.

In this depiction the ultimate ground of the process of reality, the perfect nature, which manifests when all of the imaginary projections of the dualistic sensory and mental consciousnesses are withdrawn, is portrayed as a “pure” mind-energy pervading the “whole universe.”

In the light of this, the picture of Yogacara psycho-metaphysics which is presented by some Western ‘analytic’ philosophers is very mundane. In Engaging Buddhism (EB), Garfield suggests that according to Yogacara:

…the phenomena we experience are dependent on our conceptual imputation simply because they are all really nothing more than projections of our consciousness, mere ideas and not external phenomena.

In this connection Garfield cites Vasubandhu’s opening verse from his Twenty Stanzas:

All this is merely consciousness,
Because all intentional objects are non-existent.
It is just as one who suffers from ophthalmia
Sees such non-existent things as moons and hairs.
However, when Garfield turns his attention to Vasubandhu’s *Treatise on the Three Natures (Trisvabhavanirdesa)* he believes, bizarrely, that Vasubandhu has changed his philosophical tack in the direction of phenomenology:

…it is reasonable to say that Vasubandhu explicitly articulates an idealistic perspective in his *Twenty Stanzas* and *Thirty Stanzas* … and Vasubandhu in his final work *Treatise on the Three Natures (Trisvabhavanirdesa)* as developing a phenomenology. We might also say that the *Entry into Lanka* grounds the idealism … whereas the *Discourse Unravelling the Thought,* particularly the *Paramartha-samutgata* chapter … grounds the phenomenology.36

He then makes the extraordinary, and mistaken, claim concerning “radical idealism” that:

Few in the West today, and even few contemporary Buddhists, take radical idealism seriously, but phenomenology is a central concern of contemporary philosophy of mind and cognitive science. As we shall see, Yogācāra phenomenology can be an important resource for contemporary thought.37

However, as we shall see, Yogācāra is not phenomenology as practiced by Western philosophers. It is rather the case that some Western philosophers, such as Garfield, falsely imagine Yogācāra to be phenomenology in order to practice Western style philosophy in a Buddhist context. Furthermore, with regard to Garfield’s claim the possibility of taking “radical idealism” seriously, not only do contemporary Buddhists who are true to the metaphysical worldview of traditional Buddhism, rather than adherents to a misguided modified Western materialist Buddhism (which is not actually Buddhism at all), take the idea that the ground of the process of reality is mind-stuff seriously, but modern physicists are being forced into a quantum-Yogācāra “radical idealism” metaphysical perspective by quantum discoveries.

In his book *Engaging Buddhism* Garfield offers the following ‘phenomenological’ exposition of the ‘three natures’:

Every object, on this view, has these three natures. When I consider my coffee cup, for instance, it appears to me to be an independently existing external object that possesses all of the properties I naturally ascribe to it, including a color, feel, or some other property, that I simply register through veridical perception and cognition. This is its imagined nature. In fact the object as I experience is represented in my brain as a complex set of perceptive and cognitive processes, and may be experienced quite differently by beings with very different kinds of minds, for instance an insect or a dog. The fact that as an object of consciousness it is dependent on my cognitive architecture is its dependent nature. And seeing this leads me to see that as an object of experience, while it exists in one way (as dependent) but appears in another (the imagined). It is devoid of existence in the way that it is imagined, and this is its consummate nature.

At first sight this may appear to be a precise statement of the Yogācāra ‘three natures’ doctrine, but, because Garfield presents the delineation of the natures in a materialist guise, it is in fact a travesty. It is quite clear that all three of the natures within the Yogācāra worldview are of the nature of mind, and the appearance of the material world, including ‘brains’, derives from the karmic activities within the paratantra, the alayavijnana or the other-dependent nature, so ‘brains’ are appearances within the mind-stuff of the paratantra/alayavijnana. It follows, therefore, that to represent, as Garfield does, the paratantra, other-dependent nature, as being an aspect of the process of reality which
highlights the fact that “objects” are “represented in my brain as a complex set of perceptive and cognitive processes” is highly misleading because it suggests that ‘brains’ and ‘coffee cups’ actually exist as fully paid up material entities. This amounts to an attempt to completely remove the Yogācāra from its Buddhist soteriological context in order to cast it into the context of a fundamentally materialist mode of Western analytic philosophy. And this is a crude and mistaken attempt to appropriate subtle Buddhist psycho-metaphysical analysis for the purposes of a much less precise, cogent and competent Western academic discourse.

Consider what the physicist Henry Stapp states about the ultimate existence of apparently material entities such as ‘brains’:

…no such brain exists; no brain, body, or anything else in the real world is composed of those tiny bits of matter that Newton imagined the universe to be made of.\(^38\)

According to Stapp and other significant physicists all material entities emerge form an “idea-like” quantum realm of potentiality:

We live in an idealike world, not a matterlike world. The material aspects are exhausted in certain mathematical properties, and these mathematical features can be understood just as well (and in fact better) as characteristics of an evolving idealike structure. There is, in fact, in the quantum universe no natural place for matter.\(^39\)

Much contemporary Western philosophy tends to ply its trade with the bizarre idea that metaphysical concerns can be decided by purely conceptual word-spinning without a look at what science has uncovered about the nature of the functioning of reality. As Stapp has pointed out:

Philosophers of mind appear to have arrived, today, at less-than-satisfactory solutions to the mind-brain and free will problems, and the difficulties seem, at least prima facie, very closely connected with their acceptance of a known-to-be-false understanding of the nature of the physical world, and of the causal role of our conscious thoughts within it.\(^40\)

Because of its soteriological concerns Buddhist philosophy was not isolated from a concern with the nature of apparently external material world as well as the apparently internal subjective world. The pursuit of enlightenment requires a knowledge of the ultimate functioning of reality, and, because of this, Buddhist philosophy is not philosophy as practiced by many Western philosophers who only indulge in conceptual analysis, often with a hidden materialist bias, as if such a procedure is able on its own decide metaphysical issues.

Mind-Only Buddhism asserts that what appears to be an external ‘material’ world is in fact a matter of interactions and transformations of insubstantial mind-like energetic fields. And, today, physics has found this to be true. Thus in a book entitled Quantum Reality Jonathan Allday tells us that:

Now, from a philosophical point of view, this is rather big stuff. Our whole manner of speech … rather naturally makes us think that there is some stuff or substance on which properties can, in a sense, be glued. … Philosophers have been debating the correctness of such arguments for a long time. Now, it seems, experimental science has come along and shown that, at least at the quantum level, the objects we study have no substance to them independent of their properties.\(^41\)
And the recent discovery of the Higgs field and boson at the Large Hadron Collider indicates that:

It seems logical that there should be some ultimate constituents, some undeniable reality that underpins the world we see around us and which lends it form and shape. If matter is endlessly divisible, then we would reach a point where the constituents themselves become rather ephemeral - to the point of non-existence. Then there would be no building blocks, and all we would be left with are interactions between indefinable, insubstantial phantoms which give rise to the appearance of substance. Unpalatable it may be but, to a large extent, this is precisely what modern physics has shown to be true. Mass, we now believe, is not an inherent property or ‘primary’ quality of the ultimate building blocks of nature. In fact, there is no such thing as mass. Mass is constructed entirely from the energy of interactions involving naturally massless elementary particles. The physicists kept dividing, and in the end found nothing at all.\(^\text{42}\)

All the phenomena of the apparently ‘material’ world arise from interactions of insubstantial, immaterial quantum fields. And, of course, consciousness and awareness must also reside and emerge from these fields, there is nowhere else that subjective aspects of the process of reality could arise from. This means that both the objective and subjective aspects of the process of reality arise from immaterial quantum fields of potentiality, just as the Yogācāra psycho-metaphysical worldview indicates.

The physicist David Bohm referred to the immaterial quantum field of potentiality as the “implicate order.” Bohm was led to his notion of the “implicate order” by the quantum fact that:

\[\text{…one finds, through a study of quantum theory, that the analysis of a total system into a set of independently existing but interacting particles breaks down in a radically new way. One discovers, instead, both from consideration of the meaning of the mathematical equations and from results of the actual experiments, that the various particles have to be taken literally as projections of a higher-dimension reality which cannot be accounted for in terms of any force of interaction between them.}\]  

It is this “higher-dimension reality” that Bohm called the “implicate order.” This level of quantum potentiality Bohm considered as being the quantum ground out of which both the subjective and objective realms of the experiential “explicate” world emerge:

If matter and consciousness could in this way be understood together, in terms of the same general notion of order, the way would be opened to comprehending their relationship on the basis of some common ground. Thus we could come to the germ of a new notion of unbroken wholeness, in which consciousness is no longer to be fundamentally separated from matter.\(^\text{44}\)

Furthermore Bohm, like Stapp, considered that the “common ground” was closer to the nature of consciousness than the apparently material world:

\[\text{… consciousness has to be understood in terms of an order that is closer to the implicate than it is to the explicate. … The question which is arises here, then, is that of whether or not (as was in a certain sense anticipated by Descartes) the actual ‘substance’ of consciousness can be understood in terms of the notion that the implicate order is also its primary and immediate actuality.}\]  

\(^{42}\) Smetham, G. P., Engaging Buddhism with a False Imagination  
\(^{43}\)  
\(^{44}\)  
\(^{45}\)
A similar observation has been made by Bernard d'Espagnat, a physicist and philosopher of science who is one of the world’s leading authorities on the metaphysical implications of quantum physics:

…some data are now available that tend to suggest that, far from being a mere efflorescence from neurons, thought has structures that might be, somehow, directly connect to those of ‘the Real.’ … They consist of a kind of parallelism between, on the one hand, the structures of thought and, on the other hand, the structures of quantum mechanics…

In his book *Mind, Matter and Quantum Mechanics* Stapp writes that as a result of quantum discoveries:

The physical world thus becomes an evolving structure of information, and of propensities of experiences to occur … The new conception essentially fulfils the age old philosophical idea that nature should be made out of a kind of stuff that combines in an integrated and natural way certain mind-like and matter-like qualities, without being reduced to either classically conceived mind or classically conceived matter.

Such a quantum viewpoint, which suggests that the fundamental ground of the process of reality is a stream of immaterial information that gives rise to the dualistic world, clearly maps onto the notion of the Yogācāra ‘ground-consciousness’. Stapp also asserts that “in quantum mechanics the physically described part is mind-like” and therefore his perspective “reduces at a deep ontological level to a fundamentally mind-like nondual monism.”

In other words, Stapp, like Bohm, indicates that the fundamental quantum ground of reality is a nondual monistic field of mind-like potentiality from which all the phenomena of the dualistic world emerge. Stapp’s notion of an “evolving structure of information” quite clearly corresponds to the Yogācāra notion of the ‘ground consciousness’ which carries all the potentialities for possible experience. The conceptual model of the process of reality indicated here is one within which a subjective and an objective aspect of experience arise together from the ground consciousness on the basis of previous moments of similar experiences, perceptions and actions:

A seed or predisposition is activated and simultaneously produces both an object and a cognizing subject, much as in a dream.

The result of each moment of perceptive experience, each intention, and each action is a strengthening of the latency within the ground consciousness for that event to occur again, and, when there is an activating resonance within the ground-consciousness, a ‘moment of experience’ is produced within a mental continuum. The continuous operation of this mechanism produces an interdependent subjective-objective dualistic field of experiences within an overall universal stream of awareness-potentiality.

The quantum perspective exactly matches the fundamental Yogācāra psycho-metaphysical insight of the paratantra alayavijnana, or ground continuum of nondual consciousness. Another image used by Bohm which matches the Yogācāra psycho-metaphysical worldview is that of a holomovement:

…what carries the implicate order is the *holomovement*, which is unbroken and undivided totality. In certain cases we can abstract particular aspects of the holomovement …, but more generally, all forms of the holomovement merge and are inseparable.

In an interview for Omni magazine Bohm explained:
I propose something like this: Imagine an infinite sea of energy filling empty space, with waves moving around in there, occasionally coming together and expanding producing an intense pulse. Let’s say one particular pulse comes together and expands, creating our universe of space-time and matter. But there could well be other such pulses. To us, that pulse looks like a big bang; in a greater context, it’s a little ripple. Everything emerges by unfoldment from the holomovement, then enfolds back into the implicate order. I call the enfolding process “implicating,” and the unfolding “explicating.” The implicate and explicate together are a flowing, undivided wholeness. Every part of the universe is related to every other part but in different degrees.\(^{51}\)

Another example that Bohm gives is that of the way in which a radio or TV electromagnetic wave encodes the transmitted content within, or on top of, another frequency. The original content is ‘unfolded’ by tuning to the carrier frequency. Each sentient being ‘unfolds’ a continuum of experience from out of the holomovement which takes place within the implicate order. For Bohm the process of reality is the unfolding of an experienced world from the potentialities within the holomovement; the unfolding of lived experience from the implicate order. This unfolding from the implicate order Bohm considered to occur through the operation of the same mechanism as a hologram is activated.

According to Yogācāra all of the three natures are in also non-natures, but they are non-natures in different ways. The imaginary nature, or what Jeffrey Hopkins terms the “imputational nature,” is a ‘character non-nature’ because the ‘characters’ which appear to be independent aspects of the process of reality are entirely non-existent as independent characters. The other-dependent, which Hopkins calls the “other-powered nature” is a non-nature because the elements of this nature are momentary appearances which depend upon fleeting causes and conditions. Hopkins explains this:

Other-powered natures do not have the power to stay for a second moment … since they are under the influence of the force of causes and conditions outside themselves. … these causes and conditions are predispositions, internal seeds, etchings on the mind by former perceptions that, when activated, produce the appearance of an object and a consciousness that pays attention to it. The same seed causes the appearance of the object and the appearance of the subject, much as in a dream.\(^{52}\)

Other-powered, or other-dependent natures, then, do not have their own self-power, they do not produce themselves; they are produced by the power of previous occurrences. They are therefore ‘production non-natures’, they do not produce themselves. An important aspect of this non-nature, however, is that the other-powered, or other-dependent nature is not completely and absolutely non-existent, in the way that the imaginary nature is. In his description of the ‘existence’ of the various natures Vasubandhu playfully employs notions of existence and nonexistence. The reader has to be sensitive to levels of existence and nonexistence because Vasubandhu says that all three natures have the “characteristics of existence and non-existence.” The important issue, however, is the manner of ‘existence’ or ‘nonexistence’. Thus when describing the imaginary, or imputational, nature Vasubandhu writes:

Since it is apprehended as being existent,
While being utterly nonexistent,
The imaginary nature
Is thought of as having the characteristics of existence and nonexistence.\(^{53}\)
The imaginary, then, is “utterly non-existent,” its characteristic of ‘existence’ is in fact a completely mistaken apprehension. The other-dependent nature, however, ‘exists’ as an illusory appearance:

Since it exists as an illusory entity  
And is non-existent in the way it appears  
The other-dependent nature  
Is said to have the characteristics of existence and non-existence.\(^{54}\)

The point here is that, although the appearing elements of the other-powered, other-dependent nature do appear, therefore they ‘exist’ as appearances, they do not exist in the way that they appear (i.e. the imaginary nature) and they do not exist by their own power. When it comes to the consummate, perfect, perfected, or, as Hopkins terms the final nature, the “thoroughly-established nature,” according to Vasubandhu:

Since it exists as nonduality  
And is the very nonexistence of duality  
Thus, the perfect nature  
Is thought of as having the characteristics of existence and nonexistence.\(^{55}\)

Once the nonexistence of duality is experientially realized then the direct knowledge of the ‘existence’ of the true ultimate reality of the nondual realm of \(dharmadhatu\), with its experience as nondual wisdom-awareness becomes active. The ‘ultimate non-nature’ or ‘consummate non-nature’ refers to the fact that the ultimate nature lacks any trace of duality, it is, so to speak, pure nondual potentiality. It is \(dharmata\), the ultimate nondual experiential ground wherein mind-generated dualistic illusions are etched, although the nature of \(dharmata\) always remains nondual.

In its objective aspect \(dharmata\), the ultimate nondual mind-stuff of the process of reality, can be identified with what the physicist Wojciech Zurek calls quantum “dream stuff”:

…quantum states, by their very nature share an epistemological and ontological role – are simultaneously a description of the state, and the ‘dream stuff is made of.’ One might say that they are \(epiontic\). These two aspects may seem contradictory, but at least in the quantum setting, there is a union of these two functions.\(^{56}\)

Thus quantum “dream-stuff” can be conceived of as nondual quantum potentiality wherein “epistemological” acts of perception can create dualistic ontological appearances. These dualistic appearances are called \(dharmas\) in Yogācāra terminology, as opposed to \(dharmata\) which makes up the nature, the “dream-stuff,” of \(dharmas\). As Stapp points out:

… in quantum mechanics the physically described part is mindlike. Thus quantum mechanics conforms at the \(pragmatic/operational\) level to the precepts of Cartesian duality, but reduces at a deep \(ontological\) level to a fundamentally mindlike nondual monism.\(^{57}\)

Stapp’s “fundamentally mindlike nondual monism” is at the nondual level of \(dharmata\), the “dream-stuff” of the process of reality. Zurek also indicates that ultimately the dualistic process of reality arises from the alternatives within quantum potentiality due to the operation of consciousness:

…the ultimate evidence for the choice of one alternative resides in our illusive consciousness.\(^{58}\)
Another quantum physicist, Vlatko Vedral, has also concluded that the process of reality has a non-material basis, he:

…passionately believes units of information – not particles – are the building blocks of humanity and everything that surrounds us. Information, he maintains, is what came before everything else. It is akin to God.59

Vedral has also noted the parallels between quantum discoveries and the Buddhist notion of emptiness:

…quantum physics is indeed very much in agreement with Buddhistic emptiness. 60

Vedral’s insight implicitly identifies the ground of ‘emptiness’ as a quantum field of informational potentiality in a manner which is in line with the Yogācāra view of emptiness. According to Traleg Kyabgon Rinpoche for example:

That is a unique feature of the Yogacarin presentation of emptiness, because emptiness is normally understood as a complete negation or a completely negative term rather than something positive. Here, once subject and object are negated, emptiness, which is reality, is affirmed in its place. A short passage from the Madhyantavibhanga says, “Truly, the characteristic of emptiness is nonexistence of the duality of subject and object, and the existence of that nonexistence.” “The existence of that nonexistence” is reality. Duality is removed, but emptiness itself is another kind of existence.61

Here it is clearly stated that the ground of emptiness is a nondual “positive phenomenon” characterized as being the existence of the ‘nonexistence of the duality of subject and object.’ In other words the ground of emptiness is a nondual ground of potentiality from which the phenomena of duality, the appearance of the phenomena of the dualistic world, arises. Again we see that the meeting of quantum and Yogācāra is dramatic.

In his article The Computational Universe the physicist Seth Lloyd indicates that the universe computes itself by “registering itself”62 and this process must begin long before life gets on the scene:

Life is not the original information processing revolution. The very first information processing revolution, from which all other revolutions stem, began with the universe itself. … The big bang was a bit bang. Starting from its very earliest moments, every piece of the universe was processing information. The universe computes. It is this ongoing computation of the universe itself that gave rise naturally to subsequent information-processing revolutions such as life, sex, brains, language…63

Lloyd avoids referring to consciousness but given the fact that it is now clear that consciousness does operate at the quantum level it is natural to consider such acts of internal quantum “registration” as being acts of cognition, which leads to a fully quantum cognition-only (vijnaptimatra) perspective. Such a psycho-metaphysical perspective is entirely in line with the quantum psycho-metaphysics presented by Stephen Hawking and Leonard Mlodinow in their book The Grand Design: New Answers to the Ultimate Questions of Life:

We are the product of quantum fluctuations in the very early universe. 64

The big bang was the first cascade of ‘creation operations’ within the pre-existing quantum field of potentiality which eventually gave rise to the current universe. The quantum field gave rise to the apparent world of materiality as well as the qualitative aspect of dualistic awareness or consciousness which is embodied within sentient beings. Hawking and
Mlodinow indicate the crucial ‘epiontic’ role that consciousness plays in the development of the universe:

Quantum physics tells us that no matter how thorough our observation of the present, the (unobserved) past, like the future, is indefinite and exists only as a spectrum of possibilities. The universe, according to quantum physics, has no single past, or history. The fact that the past takes no definite form means that observations you make on a system in the present affect its past.65

According to Hawking and Mlodinow, observers, or what Wheeler called ‘observer-participants,’ are able to weed out possible universes, and thereby select those which remain in the possibility mix, even backwards in time. Thus one of the central chapters in *The Grand Design* is entitled ‘Choosing Our Universe’:

The idea that the universe does not have a unique observer-independent history might seem to conflict with certain facts that we know. There might be one history in which the moon is made of Roquefort cheese. But we have observed that the moon is not made of cheese, which is bad news for mice. Hence histories in which the moon is made of cheese do not contribute to the current state of our universe, though they might contribute to others. This might sound like science fiction but it isn’t.66

According to this perspective, the reason why the moon is not made of Roquefort cheese is because the observer participants of this particular universe have observed that the moon is not made of cheese. The observations made by the observer-participants have filtered out the possibility of a cheese moon and also, at the same time, have determined the possibilities that are projected into the future. According to Wheeler:

The coming explosion of life opens the door to an all-encompassing role for observer-participancy: to build, in time to come, no minor part of what we call its past – our past, present and future – but this whole vast world.67

The role of consciousness, operating through a quantum field of mind-like informational potentiality, has become central to our current understanding of the process of reality. We live in a quantum-Yogācāra universe wherein what appears to be an independent material world “out there” is a matter of congealed mental imagery projected into nondual mindlike quantum “dream-stuff.”

Given the above considerations, Garfield’s account of the three Yogācāra natures and non-natures can be seen to be deficient. With respect to the character non-nature Garfield writes:

Emptiness with respect to characteristic … corresponds to the imagined nature. Objects are empty of the characteristics we naively impute to them. When I see ordinary physical objects around me, for instance, I take my sensory faculties to deliver them to consciousness as they are. But I know that that is crazy. My visual awareness, for instance, is a result of the interaction of external objects with my eyes, my nervous system, etc., creating a state of consciousness to which-as Berkeley pointed out-resemblance of external objects makes no sense at all. Objects are empty of the characteristics I take them to have.68

This exposition is misleading precisely because it is based on the assumption of the existence of external “ordinary physical objects,” which is contrary to Yogācāra psychometaphysics. Thus Brunnhölzl translates Vasubandhu’s description of the imaginary nature as being “utterly non-existent,” and Garfield just as “non-existent.” Garfield’s mistaken
understanding, however, allocates the imaginary nature to a kind of intervening mental image that is imposed on an “ordinary physical object” “out there” in an external world (figure 2), for Garfield it is this mental image that is the imaginary nature. For Brunnhölzl, who presents the correct version, there is no cup beyond the mental image, and both the perceiving consciousness and the apparent image perceived, which are ultimately nondual, arise from the alayavijnana, the ground consciousness (figure 3). When this perceptual process is viewed as a ‘real’ duality, with the ‘cup’ being “out there,” then the imaginary nature is operative.

![Figure 2](image2.png)

**Figure 2**

![Figure 3](image3.png)

**Figure 3**

According to Brunnhölzl:

To give a brief and general idea, the other-dependent nature is the mistaken imagination that appears as the unreal entities of subject and object, because these are appearances under the influence of something other, that is, the latent tendencies of ignorance. It appears as the outer world with various beings and objects; as one’s own body; as the sense consciousnesses that perceive these objects and the conceptual consciousnesses that thinks about them; as the clinging to a personal self
and real phenomena; and as the mental events, such as feelings, that accompany all these consciousnesses. Thus false imagination is what bifurcates mere experience into seemingly real perceivers that apprehend seemingly real objects. This very split into subject and object – the imaginary nature – does not exist even on the level of seeming reality, but the mind that creates this split does exist and function on this level. … The perfect nature is emptiness in the sense that what appears as other-dependent false imagination is primordially never established as the imaginary nature. As the ultimate object, this emptiness is the sphere of nonconceptual wisdom, and its nature is phenomenal identitylessness.

A hugely important point here is the fact that according to Yogācāra spiritual psychometaphysics the ultimate perfect, or consummate, nature is “the sphere of nonconceptual wisdom.” It is the result of a dramatic insight accompanied by an apparent ‘transformation’ (asrayaparivṛtti) which is described Brunnhözl:

…the whole point in terms of dharmadhatu, natural purity, buddha nature, or the luminous nature of mind is that there is absolutely no transformation of anything into anything else. Rather, the revelation of mind’s primordially pure nature as fruitional enlightenment only appears as a change of its state from the perspective of deluded mind – seeming to be obscured before and then unobscured later.

A realization of the ‘perfect’ or ‘consummate’ nature, then, is also a “revelation of mind’s primordially pure nature as fruitional enlightenment.” Garfield’s account, however, completely drops this psycho-spiritual dimension:

… the dependent nature may be more or less ontologically neutral, referring only to the causal role of our cognitive activity in experience, when we construct objects of experience, we actively imagine them to exist in a certain way. As a consequence, to understand their reality, their mode of being independent of that construction, we must empty them of that we imaginatively attribute to them.

This vague, imprecise (what does “more or less ontologically neutral” mean?) and misleading characterization of the ‘dependent nature’ and the ‘perfect’ ‘consummate’ and ‘thoroughly-established’ nature suggests that the final nature is nothing beyond “emptying” “ordinary physical objects” of any imaginative, and imputational overlays. This upside-down mistaken viewpoint empties the notion of the ultimate nature of any significance, philosophical or spiritual, whatsoever. What exactly is the perfect ultimate nature? According to Garfield it consists of apprehending “ordinary physical objects” as they really are in their own physical nature, which, as Kant indicated, is an impossibility. According to the correct Yogācāra psycho-metaphysics the ultimate ‘perfect’ nature consists in a direct apprehension of the nondual luminous nature of the mind-energy which is the source of all phenomena, which, according to Yogācāra Buddhism, is a possibility.

Garfield’s account of the ‘production-non-nature’ is also mistaken and misleading:

Emptiness with respect to production … corresponds to the dependent nature. That is, these phenomena are empty of independence of our cognitive and perceptual processes, despite the fact that we naively take the objects of our perception to be independent.

But this is not a correct characterization of the ‘production-non-nature’, it is, rather, a reformulation of Garfield’s misunderstanding of the ‘character-non-nature’. The notion of the ‘production-non-nature’ highlights the fact that the appearances of the ‘other-dependent nature’ are not ‘self-powered’, they are ‘other-powered’; they are a result of vast numbers of
previous moments of perception; they are based upon ‘habit energies’ within the alayavijnana.

Garfield appears to indicate that the Yogācāra perspective involves the existence of independent external objects, of which the inherent properties cannot be directly known because they are masked by a veil of perception. But this is wrong. Yogācāra psychometaphysics indicates that perceptual activity in some way creates the appearances of an external world. We can understand the cogency of this claim in a quantum context by considering Zurek’s ‘Quantum Darwinism’ proposal. The ‘Darwinian’ aspect of this quantum perspective relates to Zurek’s assertion that the states of quantum information which are capable of being disseminated are those which are the “fittest.” On this view what appears to be a ‘material’ world is in fact nothing more than a flimsy quantum informational “advertising billboard”:

The main idea of quantum Darwinism is that we almost never do any direct measurement on anything … the environment acts as a witness, or as a communication channel. … It is like a big advertising billboard, which floats multiple copies of the information about our universe all over the place.

The “advertising billboard” is not a ‘material’ construction, it is rather a quantum-informational structure which has somehow been etched into the all-pervasive quantum dream-stuff, and the experiences of all sentient beings are generated on the basis of an interaction of their minds and the quantum informational dream-structure of the “billboard.” This account, of course, bears an uncanny resemblance to the Yogācāra notion of the alayavijnana. Zurek does not say where this billboard comes from, but taking into account the foregoing discussion of the relationship between consciousness and quantum potentiality, consciousness being the activator of quantum potentialities through “acts of registration,” it is clear that it is the repeated perceptions on the part of the vast community of sentient beings which build up the quantum informational structure. As Stapp points out:

Each subjective experience injects one bit of information into this objective store of information which then specifies … the relative probabilities for various possible future subjective experiences to occur.

Thus our experiences of what Garfield calls “ordinary physical objects” are in fact not experiences of “ordinary physical objects,” at all. They are experiences generated on the basis a vast collection of previous repeated experiences, echoing over vast time scales, experiences which have become “fittest” because they are etched, by continuous repetition, into the informational dream-stuff of the quantum realm. In this way, then, it turns out that what appears to be an independent external world, including our bodies and sensory apparatus, is nothing of the sort, it is mind-dependent illusion generated from a developing pool of quantum information, which itself depends upon the interacting minds.

We can now turn our attention to Garfield’s misrepresentation of Vasubandhu’s magician generated elephant analogy. He translates the thirtieth verse of the Trisvabhavanirdesa as follows:

The root consciousness is like the mantra
Reality can be compared to the wood.
Imagination is like the perception of the elephant,
Duality can be seen as the elephant.

Here is Brunnhölzl’s version:
The root-consciousness is like the mantra,
Suchness is regarded as similar to the wood,
Imagination is considered like the appearing aspect of the elephant
And duality is like the elephant.

And here is Stefan Anacker’s version:

The root-consciousness is like the mantra;
Suchness is like the wood;
Discrimination is like the elephant’s appearance,
And duality is like the elephant itself.\(^\text{77}\)

All versions are more or less in agreement apart from Garfield’s use of the term ‘Reality’ instead of ‘Suchness.’ ‘Suchness’, \(\text{tatatha}\) or \(\text{dharmata}\) is the ultimate “dream-stuff” of the \(\text{dharmadhatu}\), which is the space encompassing the potentiality for all phenomena, the mind-like ultimate nature of all phenomena. As long as the root-consciousness (\(\text{alayavijnana}\)) operates within the \(\text{dharmadhatu}\) dualistic appearances arise and are taken to be real appearances.

Garfield’s use of the term “Reality”, however, allows him to concoct a perverse and incorrect interpretation. The term ‘Reality’, correctly understood as indicating the immaterial ultimate ‘Reality’ of luminous nondual mind-energy, can stand in for \(\text{tatatha}\) or \(\text{dharmata}\) but Garfield chooses to offer a completely spurious and misguided materialist account of Vasubandhu’s Mind-Only analogy. According to Garfield, Vasubandhu’s verses:

…certainly invites an idealistic interpretation … But it does not force such a reading.
… Vasubandhu is arguing only that subject-object duality is unreal, just as the mantra causes the elephant to appear, that duality in our experience is caused to appear by our root-consciousness, what we might anachronistically call our neurocognitive processes.

Does Vasubandhu side here with Berkeley … Not obviously. Let us parse stanza 30 with care. Part of the causal basis for experience is the root-consciousness/our psychological processes, just as part of the basis of the audience’s experience of the elephant is the mantra. So far, so good. Nothing idealistic, but nothing on the other side either. But now we get to reality. To what is it compared? To a pile of sticks. They are certainly material in the analogy, and external to the minds of the audience. Moreover, they are seen as sticks by the magician doing the conjuring – and even by the audience when the spell wears off.\(^\text{78}\)

This bizarre account indicates how perverse interpretations of Buddhist metaphysics can be when they are concocted through the distorting lens of the false imagination of Western analytic philosophy. And it looks for all the world as if such concoctions are not in search of clarity or elucidation, but rather the maintenance of a certain style of Western academic discourse. If clarity were the goal then anyone concerned with the meaning and truth of Buddhist metaphysical doctrines, which make clear assertions about the ‘empty’, ‘mind-like’ nature of the apparently physical world, would certainly need to take into account the modern discoveries of quantum physics, as the Dalai Lama often suggests.

Garfield tells us that “Vasubandhu is arguing,” but this is not correct; Vasubandhu is describing the psycho-metaphysical structure of the process of reality; and his description involves the elephant “magic show” analogy, which Garfield mangles for his own purposes. Garfield claims that the analogy does not “force” an idealistic viewpoint, but he claims this by illicitly isolating a few verses from their overall context. He forces a possible non-idealistic
reading by ignoring the overall context. Admittedly Garfield also says that the fact that the wood or sticks in the analogy are material in nature:

\[ \text{...does not force a nonidealist reading. After all, this is only an analogy. Just as the nonexistence of the elephant doesn’t force idealism, the existence of the sticks doesn’t force materialism.}^{79} \]

However, the point is that the very act of reinterpreting Vasubandhu’s verses in such a contrary manner by ignoring the overall consciousness-only context of Vasubandhu’s work undermines the Yogācāra worldview in a quite perverse fashion. And this procedure leads to a perverse conclusion which has absolutely nothing to do with Vasubandhu or Yogācāra:

\[ \text{So, then, on this view, what am I? I am, independent of my experience, just what the elephant … is; a pile of sticks by the road that I have never encountered directly; and probably never will.}^{80} \]

It is unfortunate that Vasubandhu used the image of a block of wood, or pile of sticks, to represent the immaterial ultimate “dream-stuff” of ‘suchness’, or dharmata, because it may lend Garfield’s mistaken account a modicum of plausibility for the unwary.

Vasubandhu’s elephant “magic show” analogy is very similar to an analogy of the quantum situation used by physicist and philosopher Bernard d’Espagnat:

\[ \text{...a rainbow, obviously, may not be considered an object-per-se. For, indeed, if we move it moves. Two differently located persons do not see it having its bases at the same places. It is therefore manifest that it depends, in part, on us. ... But still, even though the rainbow depends on us, it does not depend exclusively on us. For it to appear it is necessary that the sun should shine and that raindrops should be there. Now similar features also characterize quantum mechanically described objects, that is, after all … any object whatsoever. For they also are not ‘objects-per-se’. The attributes, or ‘dynamical properties,’ we see them to possess depend in fact on our ‘look’ at them…}^{81} \]

In this analogy (figure 4) the sun, raindrops and observer correspond to the other-powered, other-dependent realm of interdependent causes and conditions which produce an appearance of the rainbow. The rainbow is not an external object but it appears to be so. If one were to take the appearance to be a really existing object “out there” then this would be the imaginary, imputational nature. In this analogy we can identify the interdependent causal nexus as the ‘mantra’, the rainbow as the appearance of the elephant, the belief in its reality as corresponding to the belief in an external elephant. The space within which this all takes place is the dhamadhatu, the space of phenomena, which in Vasubandhu’s analogy corresponds to the wood. D’Espagnat tells that all phenomena are like such rainbows, or, as the physicist and philosopher Victor Mansfield, author of Tibetan Buddhism and Modern Physics, has pointed out:

\[ \text{We can now demonstrate that ‘quantum moons’ do not exist when unobserved. Such ‘experimental metaphysics’ has an extraordinary resonance with the Middle Way Buddhist principle of emptiness…}^{82} \]

The term “quantum moon” derives from a remark that Einstein made to fellow physicist Pascual Jordon:

\[ \text{We often discussed his notions on objective reality. I recall that during one walk Einstein suddenly stopped, turned to me and asked whether I really believed that the moon exists only when I look at it.}^{83} \]
At the quantum level this is the case. The ‘particles’ of the subatomic world emerge from eternal insubstantial quantum fields:

Quantum field theory, the tool with which we study particles, is based upon eternal, omnipresent objects that can create and destroy those particles. These objects are the ‘fields’ of quantum field theory. … quantum fields are objects that permeate spacetime … they create or absorb elementary particles … particles can be produced or destroyed anywhere at any time.\textsuperscript{84}

And they are created by interaction with consciousness:

The physicist John Wheeler once proposed a challenge: How can you best describe quantum mechanics in five words or fewer … When I posed this question about quantum mechanics the best answer was “…Don’t look: waves. Look: particles.”\textsuperscript{85}

This means that at more macroscopic levels the world around us is a kind of collective illusion, a “magic show” dependent upon consciousness. The reality is that, as many quantum physicists now know in various formulations, the moon only exists, and is not made of Roquefort cheese, because a community of a vast number of sentient beings, over vast time scales, have been looking at it, and this has left moon-experience potentialities in the “dream-stuff” of the “implicate” quantum ground-consciousness. This is pretty much in line with the ‘idealist’ view of Yogācāra. So much for analytical philosophy, well, what can you expect from a cowherd?


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