Causation in Buddhist Philosophy

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Abstract

Causation is central to Buddhist philosophy; but in the many schools of Buddhist thought that have appeared in the two and a half thousand years of its development, several different accounts of the structure of causation have been given. In this paper I will discuss a number of these, with particular reference to questions of reductionism and holism. In particular, we will look at the accounts of Abhidharma, Madhyamaka, and Huayan.

1 Introduction

Causation, as Mackie puts it in the title of his book,¹ is the cement of the universe. But how it holds the universe together, well, that's another matter. In particular, do the causal powers of things reduce to those of their parts, or is causation a more holistic matter?

The point of this paper is to discuss the Buddhist view of the matter—or better, Buddhist views. For Buddhist philosophy is no one thing, and though the different Buddhist schools typically agree on some things, there is a wide divergence of views on matters physical/metaphysical, causation included. The paper is not a survey of Buddhist views on the issue at hand. That would required a scholarly and inordinately longer paper. What I will do is

 $^{^{1}}$ Mackie (1980).

describe the views of some important Buddhist schools, which will illustrate the wide variety of views that have been endorsed.

Nor is the point here to try to adjudicate the differences. Again, that would require a much longer philosophical treatise. My aim is simply to show the variety. In particular, we will look at three very distinctive views. The first is the Indian Abhidharma view. The second is the Madhyamaka view. This is Indian too, though it had an enormous impact on all subsequent Mahāyāna views—which include all the Chinese Buddhist views. The third is the Chinese Huayan view.

I shall make some comments on the connection between these schools of thought. But those who seek an account of the history and geography of Buddhist philosophy must look elsewhere.²

2 Background

2.1 Holism and Reductionism

First, however, some general background. The notions of reductionism and holism are somewhat vague, and tend to be used in different ways. In his article in the *Stanford Encyclopedia of Philosophy*, Healey usefully defines methodological versions of these notions as follows:³

- *Reductionism*: An understanding of a complex system is best sought at the level of the structure and behavior of its component parts.
- *Holism*: An understanding of a certain kind of complex system is best sought at the level of principles governing the behavior of the whole system, and not at the level of the structure and behavior of its component parts.

These glosses, focussing on the notion of understanding, will serve our purpose here.

 $^{^{2}}$ A brief account can be found in Priest (2014), pp. *xxiii-xxiii*. Much fuller accounts can be found in Carpenter (2014), Mitchell (2002), and Williams (2009)

³Healey (2016).

2.2 Causation

To understand something is to grasp its whys and where fors. And in the case of the world of space and time, that means, of course, understanding causation.⁴

Causation is of many kinds, however. To see this, let us turn, not to Buddhism, but to Aristotle. As is well known, in his *Physics*, Aristotle distinguishes between four kinds of causation. In his own words:⁵

...we must proceed to consider causes, their character and number. Knowledge is the object of our inquiry, and men do not think they know a thing till they have grasped the 'why' of it (which is to grasp its primary cause). So clearly we too must do this as regards both coming to be and passing away and every kind of natural change, in order that, knowing their principles, we may try to refer to these principles each of our problems.

He then proceeds to describe the causes of an object as of four kinds, illustrating with respect to a bronze statue:

- *Material cause*: the matter of which the thing is made; in this case the bronze.
- *Formal cause*: the form into which the material is shaped; in this case the form of a statue.
- *Efficient cause*: the process by which the statue comes into being; in this case, the working of the artificer.
- *Final cause*: the end for which the statue was made; perhaps, in this case, to produce an object of worship.

All of these causes are at work in Buddhist philosophy, though only the first three will be part of our story here.⁶

 $^{^4 \}rm For$ Buddhism, the world of space and time is the whole world. Buddhists of all stripes are nominalists about universals, and accept no abstract objects.

⁵ Physics $194^{b}16$ - $194^{b}23$. Translation from Barnes (1991).

⁶In Buddhism, there is an appropriate final cause, the attainment of $nirv\bar{a}na$. But this cause belongs to Buddhist soteriology, not metaphysics.

3 Abhidharma Buddhism

$3.1 \quad Prat {ar i} ty as a mutp {ar a} da$

These matters clarified, let us now turn Buddhism itself.

Buddhist thought can traced back to the ideas of the Buddha (awakened/enlightened one), Siddhārtha Gautama (fl. 6 or 5 c. BCE); and causation is central to these. Buddhist thought provides what one might think of as an analysis of the human condition: its unsatisfactory (duhkha) nature, the causes of this, and how to ameliorate things. An important part of the story is that everything is in a causal flux. Things come into existence when causes and conditions are ripe, maintain themselves in a state of causal interaction for a time, and then go out of existence when, again, causes and conditions are ripe. Everything is impermanent (anitya). As one of the $s\bar{u}tras$ puts the matter of causation:⁷

When this is, that is.

From the arising of this comes the arising of that.

When this isn't, that isn't.

From the cessation of this comes the cessation of that.

The causal flux is termed $pratity as a mutp \bar{a} da$ (dependent origination/arising). The causation involved here is clearly efficient causation.

3.2 Dharmas

Other aspects of causation emerged in detail a little later. In the 500 years after the Buddha, a number of schools of Buddhist thought arose. These are known as the Abhidharma (higher teaching) schools.⁸

It seems fairly obvious that the things we meet with in the normal course of events (including people) are composed of parts. My body has arms and legs; my perception contains sights and sounds; my car has wheels and a chassis. Those parts can themselves have parts. For example, my arm has a hand, an elbow. And those parts can themselves have parts. Thus, my hand has five fingers.

⁷Thanissaro (2005).

⁸On these, see Ronkin (2018).

If we take some object, and consider its parts, their parts, the parts of these... and so on, must we come ultimately to partless parts—things which are simple, and themselves without parts? The Abhidharma philosophers said 'yes'. It would seem that if the parts of parts went on for ever, there would ultimately be nothing there—which there obviously is.

The Abhidharma philosophers called these ultimate parts dharmas.⁹ Dharmas are the ultimate building blocks of reality, its atoms. They do not depend for being what they are on their parts (obviously) or anything else. They have $svabh\bar{a}va$. Literally this means something like *self-being*, or *self-nature*. Perhaps the best translation into English is *intrinsic nature*, though it is common to see the word translated (somewhat misleadingly) as *essence*. Note that the *dharmas* are in the flux of *pratityasamutpāda* as much as anything else. They interact causally with other *dharmas*, and themselves come into and go out of existence.

All the Abhidharma philosophers agreed that there were different kinds of dharmas—for example, physical and mental—though there was some disagreement about their exact nature. Perhaps the most common view was that they are tropes, that is, particular instantiations of universals, such as the redness of this cherry, or the painfulness of this experience.¹⁰ Whatever they are, however, they are the things that are ultimately real.

The objects of our normal experience, by contrast, are simply bunches of *dharmas* arranged in a certain way. So, a table is just a bunch of atoms "arranged table-wise"; and a person is a bunch of atoms "arranged personwise". Certain bunches of atoms have a causal continuity which gives them an important role in our lives: trees, houses, indeed people themselves. It is therefore useful to single those out with particular concepts, such as *house*, *person*, or *White House*, *Donald Trump*.

Hence there are two kinds of reality: an ultimate reality (*paramārtha* satya), comprising the *dharmas*, and a conventional reality (*sanvrti satya*) comprising the conceptual constructions made from these things.¹¹

 $^{^{9}}$ Note that the word *dharma* has many different uses in Buddhist philosophy. Literally it means something like: that which established or firm.

 $^{^{10}}$ See, e.g., Ganeri (2001), ch. 4.

¹¹Further on this picture, see Siderits (2007), ch. 6. The Sanskrit word *satya* may be translated both as *reality* and *truth*. 'Truth' is the more usual scholarly translation; but in the present case, I think that 'reality' is definitely better. Note also that a distinction between a conventional reality and an ultimate reality goes all the way back to the earliest stages of Buddhism. The Abhidharma philosophers give it a distinctive metaphysical

The whole situation is summed up by Vasubandhu (fl. 4th or 5th c. CE) in late Abhidharma text, Abhidharmakośa-Bhāṣya (Commentary on the Treasury of Abhidharma) as follows:¹²

The Fortunate One has... declared two truths, (1) conventional or relative truth (sam vritisatya) and (2) absolute truth $(param \bar{a}rthasatya)$. What are these two truths?...

If the cognition of a thing disappears when this thing is broken into parts, this thing exists relatively or conventionally. An example is a pitcher, for when the pitcher is broken into shards, the cognition of a pitcher disappears, or does not arise.

If the cognition of a thing disappears when the [(constituent) factors of this thing] are mentally removed, this thing too should be regarded as existing relatively or conventionally. An example is water, for when—with respect to water—we [mentally] take and remove the factors, such as visible form or color, etc., the cognition of the water disappears or does not arise.

To these things, e.g., pitcher, clothes, etc., water, fire, etc., different names or notions are given from the relative point of view or in accordance with conventional usage. Thus, if one says, from the relative or conventional point of view: "There is pitcher, there is water", one speaks truly, one does not speak falsely. Hence this is relative or conventional truth.

That which is other than this is absolute truth. Therein, even when a thing is being broken—or [likewise, even if its (constituent) factors] are mentally removed, and the cognition of this thing continues, then this exists absolutely. For example, visible form: for, therein, when a visible [thing] is broken into atoms or infinitesimal particles and when taste and the other factors have been mentally removed, the cognition of the intrinsic nature [*svabhāva*] of visible form persists. Sensation, etc., is also to be seen in the same way. As this exists absolutely, this is absolute truth.

twist, however.

¹²De La Vallée Poussin and Sangpo (2012), Vol. 3, pp. 1891-2. I have removed many of the Sanskrit glosses. 'Fortunate One' is an honorific for the Buddha. In what follows square brackets contain translator's interpolations unless otherwise noted.

3.3 Reflections on Causation

Before we move on the the next Buddhist school of philosophy we will meet (Madhyamaka), let us pause for a few philosophical reflections.

First, we have been talking about parts and wholes—mereology. During the last century, starting with the work of Husserl and Leśniewski, this has become a well-developed part of formal logic.¹³ In this, there is an operation called mereological *sum* or *fusion*. To illustrate: if you take all my parts and fuse them together you get me. If you take the four movements of Beethoven's 9th Symphony, you get the whole symphony. There is a standard debate in mereology as to when a bunch of things have a fusion. Some philosophers hold that any bunch of objects fuse to form a whole, though this may be a strange one. Some deny this. Thus, consider an incongruous bunch of objects such as: the Eiffel Tower, the Buddha's left earlobe, and Jupiter. These, it is held, have no fusion. To have a fusion, a bunch of objects must have a certain coherence—though how best one might understand this, is somewhat unclear.

Now, in Abhidharma, the objects of conventional reality may naturally be thought of as the fusion of their *dharmic* parts, and the *dharmas* that fuse to form a whole are precisely those which fall under some concept, such as *person* or *Graham Priest*. The concepts to be deployed here are those of common sense, or perhaps its theoretical developments. But it seems clear that there is no natural concept which unifies the *dharmas* in our trio of incongruous objects. The Abhidharma philosophers would therefore have agreed with the modern philosophers who hold that not all bunches of things have a fusion.

Next, we had already met the notion of efficient causation in Buddhism. We have now also met the notions of material cause and formal cause. Given an object of conventional reality, its *dharmic* parts are its material cause. The concept which unifies its parts is its formal cause. This is not exactly an Aristotelian form, but it does the same job of forming the matter into an object of a certain kind.¹⁴

Finally, the notion of causation involved in the Abhidharma metaphysics is clearly reductionist. The only complexes are the objects of conventional reality. Our concepts pick out their *dharmic* parts, their matter; and efficient

 $^{^{13}}$ For a general account, see Varzi (2016).

¹⁴See Priest (2014), ch. 3. Moreover, if the *dharmas* are tropes, these are exactly instances of Aristotelian forms—without any matter.

causation works on these. An understanding of the behaviour of the objects of conventional reality is therefore to be found at the level of their component parts.

4 Madhyamaka Buddhism

4.1 Emptiness

Let us move to our next Buddhist school.

Around the turn of the Common Era, a new form of Buddhism arose, Mahāyāna (Greater Vehicle). This had a quite different metaphysical picture of the world. In fact, there are several different Mahāyāna Buddhisms: two major ones in India, and all of the East Asian Buddhisms. However, it is just one of these on which we will concentrate here, Madhyamaka (Middle Way).

The basis of this was laid out by Nāgārjuna (fl. 1st or 2nd c.) in his $M\bar{u}lamadhyamakak\bar{a}rik\bar{a}$ (MMK, Fundmental Verses of the Middle Way), which was to exert a profound influence on all Mahāyāna Buddhisms.¹⁵ In this, Nāgārjuna launches an attack on the older metaphysics. In particular, he argues that there are no such things as *dharmas* in the sense that the Abhidharma philosophers held, namely, things with *svabhāva*. Everything is empty ($s\bar{u}nya$) of intrinsic nature. Everything, that is, is what it is, not in and of itself, but only in relation to other things.

Of course, for the Abhidharma philosophers, the objects of conventional reality are what they are only in relation to their parts and our concepts. A central part of Nāgārjuna's attack was to broaden this picture by adding efficient causation to the list. For the Abhidharma philosophers, the efficient causes of something determine *that* it is, but now *what* it is. In Madhyamaka thought it does. Thus, to illustrate, an acorn is what it is (in part) because it grows on an oak tree, and generates further oak trees. If it grew on bicycles and produced, not oak trees, but goldfish, it would hardly be an acorn. These are matters of efficient cause and effect. In Madhyamaka, then, everything is what it is in relation to is parts, causes and effects, and our concepts.

Given this picture, it would have been natural, one might think, for Nāgārjuna to jettison the notion of ultimate reality altogether. But whether because of respect for his tradition, or for some other reason, he does not.

¹⁵On Nāgārjuna, see Westerhoff (2018). On Madhyamaka in general, see Hayes (2019).

He is as clear as his predecessors that there are two realities (MMK XXIV: 8-10):¹⁶

The Buddha's teaching of the Dharma

Is based on two truths:

A truth of worldly convention

And an ultimate truth.

Those who do not understand

The distinction between these two truths

Do not understand

The Buddha's profound truth.

Without a foundation in conventional truth

The significance of the ultimate cannot be taught.

Without understanding the significance of the ultimate

Liberation cannot be achieved.

What conventional reality is, for Nāgārjuna, is clear enough. As for the Abhidharma philosophers, it is the world of our familiar experience. But what the ultimate reality of an object is, is much less clear.

He refers to this as *emptiness* ($\delta \bar{u}nyat\bar{a}$); and two things about it, anyway, seem clear. The first is that it is as empty as anything else. In perhaps the most famous verse of the MMK (XXIV: 18), he says:

That which is dependent origination

Is explained to be emptiness.

That, being a dependent designation,

Is itself the middle way.

To give the standard explanation: the (conventional) things in the flux of $prative ty a samutp \bar{a} da$ are empty (of $svabh \bar{a} va$). Emptiness is, however, itself empty (dependent for being what it is on other things). Thus all things are

 $^{^{16}{\}rm Translations}$ from the MMK are from Garfield (1995). Note that 'Dharma' here means Buddhist doctrine.

neither non-existent nor are they what they are in and of themselves. The truth steers between these two extremes.

Of course, this raises the question of what it is that the ultimate reality of something itself depends on. Nāgārjuna is silent on the matter, but there isn't much for it to depend on except conventional reality. Sometimes this relationship between the conventional reality of an object and its ultimate reality is likened to that between the two sides or a coin. One cannot have the one without the other. And each, as it were, delivers a different aspect of the same thing. As Candrakīrti (fl. 7 c.), the most influential commentator on Nāgārjuna in the Tibetan tradition, puts it in his *Madhyamakāvatāra* (*Introduction to the Middle Way*):¹⁷

The Buddhas, who have an unmistakable knowledge of the nature of the two truths, proclaim that all things, outer and inner, as they are perceived by two kinds of subject (deluded consciousness on the one hand and perfectly pure wisdom on the other), possess a twin identity... They say that the object perceived by authentic primordial wisdom is the ultimate reality, whereas the object of a deluded perception is the relative truth.

The other thing that Nāgārjuna appears to be clear about is that the ultimate reality of something is ineffable. Thus, he says in the dedicatory verses of the MMK:

I prostrate to the perfect Buddha, The best of all teachers, who taught that Whatever is dependently arisen is Unceasing, unarisen.

Not annihilated, not permanent,

Not coming, not going,

Without distinction, without identity

And free from conceptual construction.

¹⁷Padmakara Translation Group (2004), p. 192.

Of course, the *whatever* in question is the ultimate aspect of something in the causal flux. Its conventional aspect is clearly dependent on conceptual construction—that is one of the things that makes it conventional. And given that, it can be described by those concepts. That concepts are *constitutive* of conventional reality is, presumably, the reason why the ultimate cannot be described, though Nāgārjuna is not explicit on the matter.

It is worth noting, however, that Nāgārjuna's view that the ultimate is ineffable is not idiosyncratic. He is just being faithful to the $s\bar{u}tra$ literature. Thus, for example, in the *Vajracchedikā* $S\bar{u}tra$ (Diamond Sūtra) one of the most important Mahāyāna sūtras, we have:¹⁸

[The Buddha said]: Subhūti, words cannot explain the real nature of the cosmos. Only common people fettered with desire make use of this arbitrary method.

Ultimately, then, things are ineffable.

4.2 The Structure of Emptiness

So much for exceptical matters. Again before we turn to the next Buddhists school we will meet (Huayan), let us pause for some philosophical reflections.

The objects of conventional reality are, as we have seen, empty of intrinsic nature. That is, an object is what it is only in virtue of its relations—mereological, conceptual, and (efficiently) causal—to other things. In other words, anything which bore exactly those relations to those things would be that very object. Or, to put it another way, its identity is determined by its locus in a network of relations.

One may illustrate with a diagram. Take some object, and suppose that it is relevantly related to three objects: to a by the relation α , to b by β , and to c by γ . We may depict matters thus:

$$\circ \stackrel{\alpha}{\xrightarrow{\gamma}} b$$

$$\circ \stackrel{\beta}{\xrightarrow{\gamma}} b$$

$$\sim c$$

¹⁸Price and Wong (1990), p. 51.

The circle, \circ , marks the locus of the object in this network of relations. And anything that occupied that locus would be that very thing.¹⁹

$$\begin{array}{cccc}
 a \\
 \overset{\alpha}{\nearrow} \\
 \circ & \stackrel{\beta}{\rightarrow} & b \\
 \overset{\gamma}{\searrow} \\
 & c
\end{array}$$

Of course, what is true of the object located at \circ is true of the objects a, b, and c themselves, since they, too, are empty. So we may "expand" them in the same way—taking the number three, again, for the sake of illustration. This time I omit the labels of the relations, to avoid clutter:



¹⁹Note that relationships have a direction, from subject to object. Thus consider the relationship of killing. There is a big difference between *Brutus killed Caeser* and *Caesar killed Brutus*. I have indicated the direction of the relationship in the diagram with an arrow. In the diagram, all the arrows point in the same direction. One can do this for the following reason. Every relation has a converse, which can be used to express the same thing. Thus, the converse of *kill* is *be killed*; and one can say, indifferently, *Brutus killed Caesar*, and *Caesar was killed by Brutus*. Hence one can always always choose whichever of a relation and its converse it is which points in the right direction.

And of course, the same is true of the various as, b's and cs. So we can repeat the process, and keep doing so indefinitely. If we do this as often as possible we then arrive at the following diagram—called by mathematicians a *tree*.



Our original object has become the root (i.e., first node) of the tree. And any branch of the tree—that is, any route from the object following a path of arrows all the way along—is infinite. The structure of the causal relations in the tree gives, as it were, the metaphysical structure of the original object.

4.3 Reduction and Holism Again

And what does this tell us about reductionism and holism concerning causation in Madhyamaka?

The first thing that might occur to you when you see the metaphysical trees with the infinite branches is that this is going to generate an infinite regress of explanations, which is either vicious or makes a reduction impossible.

Both of these thoughts would be wrong. There is nothing vicious about an infinite regress of explanations. Thus, the explanation of the existence of Anna could be the fact that Betty gave birth to her. The explanation of the existence of Betty could be the fact that Cathy gave birth to her. The explanation of the existence of Cathy might be the fact that Dorothy gave birth to her... and so on indefinitely. Of course, one might not think that actual human history is infinite in this way, but there is nothing *logically* impossible about this. In fact, traditionally, Buddhist thought indeed took the universe to be infinite in time past.

Nor is there anything about the regress which makes reduction impossible. Even if explanations ultimately cash out in terms of some some fundamental mereological level, the behaviour of the objects at that level might have a regress backwards in time of the kind involving Anna, Betty, Cathy, and so on.

Where the causal structure of Madhyamaka is relevant is this. In the reductionism of Abhidharma, causation is ultimately at the level of *dharmas*. These are simple. At this level, there are no wholes, and so there is no question of holistic explanations. In Madhyamaka, if one talks of explanation, this has to be at the conventional level, since we can say nothing about the ultimate level. And at the conventional level, there are complex wholes—the objects of our familiar experience, such as cars and people. Since there are wholes, there is a possibility of holistic explanation.

And *prima facie* there do appear to be such explanations. Thus, one might explain the melting of a polar cap in terms of changes to the ecosystem, of which the behaviour of the polar cap is a part. Or one might explain the fact that someone sold their shares in terms of the fact that there was a run on the market, of which the person's behaviour is a part.²⁰ Of course, it might be that on closer inspection such explanations can be reduced to non-holistic explanations. However, this is ultimately a matter for scientific investigation, and not to be settled by abstract metaphysical considerations. The point is simply that Madhyamaka metaphysics is compatible with both reductionism and holism. It does not determine which of these features of causation is correct.

5 Huayan Buddhism

5.1 The Net of Indra

The third school of Buddhism that we will look at is the Chinese Huayan (Jap: Kegon) School.²¹ (The meaning of the name is not important. It is a translation of the Sanskrit *Avatamsaka* meaning *flower garland*—the name of the $s\bar{u}tra$ the school took to be of most importance.)

Buddhism (Mahāyāna) started to go into China around the turn of the

 $^{^{20}}$ Further putative examples occur in quantum mechanics, where distinct particles can be entangled. This means that one particle of a pair has (say) *spin up*, in terms of the fact that an observation on the other member of the pair determined it to have *spin down*.

²¹The relevant Chinese characters for the names in this section can be found in an appendix to the essay.

Common Era. There, it met the indigenous philosophies of Confucianism and Daoism. Daoism, in particular, was to exert a profound influence on its development. By about the 6th century, distinctively Chinese forms of Buddhism were developing. Huayan was one of these.²² Traditionally, the founder and first Patriarch of the school is taken to be Dushun (557-640), but the most influential thinker is usually reckoned to be the third, Fazang (643-712). We will also meet the fourth, Chengguan (738-839).

One of the fundamental features of the school—indeed, the one that will be most important for our purposes—is that it universalises the Madhyamaka claim that any thing is what it is in virtue of its relationships to *some* other things. Any thing is what it is in virtue its relationships to *all* other things. Indeed, each thing has a very specific relationship to all other things. Using the metaphor of coins, Fazang puts the matter as follows:²³

If we take ten coins as symbolizing the totality of existence, and examine the relationship of existence amongst them, then, according to Huayan teaching, coin one will be seen as identical with the other nine coins.

The character translated as 'identical with' here is ji (Jap: soku). And indeed, in the vernacular, this means something like 'is the same as'; but it is clear that the Huayan philosophers use it in a very specific and technical sense. I will translate it, as is sometimes done, as 'interpenetrate'.

The relationship of universal interpenetration is depicted in more detail by perhaps the most famous metaphor associated with Huayan: the Net of Indra (*Yintuoluo wang*). Fazang puts the matter as follows:²⁴

It is like the net of Indra which is entirely made up of jewels. Due to their brightness and transparency, they reflect each other. In each of the jewels, the images of all the other jewels are [completely] reflected. This is the case with any one of the jewels, and will remain forever so. Now, if we take a jewel in the southwestern direction and examine it, [we can see] that this one jewel can reflect simultaneously the images of all other jewels at once. It is so with the one jewel, and is also so with each of all the others. Since each of the jewels simultaneously reflects the images of all

 $^{^{22}}$ On Huayan, see Van Norden (2019).

²³Huayan wujiao zhang (Treatise on the Five Teachings). Quoted in Cook (1977), p. 2.

²⁴ Treatise on the Five Teachings, quoted in Liu (1982), p. 65.

other jewels at once, it follows that this jewel in the southwestern direction also reflects all the images of the jewels in each of the other jewels [at once]. It is so with this jewel, and is also so with all the others. Thus, the images multiply infinitely, and all these multiple infinite images are bright and clear inside this single jewel. The rest of the jewels can be understood in the same manner.

The god Indra has spread a net through space. At every joint of the net there is a brightly polished jewel. Each jewel reflects every other jewel; but each jewel reflects every other jewel reflecting every other jewel, and reflects every jewel reflecting every other jewel reflecting every other jewel... and so on to infinity. (Like two mirrors face to face, each reflecting the other *ad infinitum*.) The jewels are metaphors for the objects of reality; and the infinite reflection is a metaphor for interpenetration.

5.2 Li and Shi

But how should one understand this metaphor? To do so we must start by going back to Madhyamaka. As we saw, according the Candrakirti, things have a conventional aspect and an ultimate aspect which depend on each other.

The notion of the ultimate undergoes an important transformation in Chinese Buddhism. In Daoist thought, behind the flux of our familiar world there is a single ultimate ground, dao. The "myriad things" of phenomenal reality are the manifestations of this. Moreover, dao is ineffable. It cannot be a this, rather than a that, since it has to become all things. In Chinese thought, the Buddhist ultimate/conventional distinction becomes identified with the Daoist distinction between dao and its manifestations.²⁵ Given this, every object of conventional reality has exactly the same ultimate nature (often called Buddha nature, foxing, Jap: busshō). In his Treatise on the Golden Lion (Jin shizi) Fazang uses the example of a golden statue of a lion to explain matters. Ultimate reality is like the gold out of which the lion is made. Conventional reality is like the shapes that the gold assumes in the various parts of the lion.

²⁵There is much more to the matter than this. Various elements of Indian Buddhist thought concerning $Yog\bar{a}cara$ and $tath\bar{a}gata-garba$ played an important role in this process; but we need not go into this here. For some discussion, see Priest (2018), 8-2-8.4.

We may put the matter in the language of Huayan as follows. An element of conventional reality is called a *shi* (thing, fact, object); and ultimate reality is called *li* (principle). *Li* and *shi* interpenetrate, *lishi wuai* (the non-obstruction of *li* and *shi*). Dushun puts the matter as follows in his *Meditation on the* Dharmadhātu (*Huayan fajie xuan jing*):²⁶

Li, the law that extends everywhere, has no boundaries or limitations, but shi, the objects that are embraced by li, have limitations and boundaries. In each and every shi, the li spreads all over without omission or deficiency. Why? Because the truth of li is indivisible. Thus, each and every minute atom absorbs and embraces the infinite truth of li in a perfect and complete manner.

Shi, the matter that embraces, has boundaries and limitations, and li, the truth that is embraced [by things], has no boundaries or limitations. Yet this limited shi is completely identical [GP: ji], not partially identical, with li. Why? Because shi has no substance [GP: $svabh\bar{a}va$]—it is the selfsame li. Therefore, without causing the slightest damage to itself, an atom can embrace the whole universe. If one atom is so, all other dharmas should also be so. Contemplate on this.

And in his Treatise on the Golden Lion, Fazang says:²⁷

All phenomena [GP: shi] are in great profusion, and are interfused but not mixed (losing their identity). The all is [GP: ji] the one [GP: li], for both are similar in being non-existent in nature [GP: having no $svabh\bar{a}va$]. And the one is the all for the relation of cause and effect are perfectly clear. As the power [of the one] and the function [of the many] embrace each other, their expansion and contraction are free and at ease.

Universal interpenetration tells us that shi and shi also interpenetrate shishiwuai (the non-obstruction of shi and shi). Moreover, they do this becase of the their relationship with li. In A Hundred Gates to the Sea of Ideas

 $^{^{26}}$ Chang (1972), pp. 144-5. The *Dharmadhātu* is the realm of all things. In what follows, the interpolations with my initials are mine.

²⁷Chan (1969), p. 410.

of the Avatamsaka Sūtra (Huayan jing yi hai bai men) Fazang puts this as follows:²⁸

[A particle of dust] has the characters of roundness and smallness. This is a fact [GP: shi]. Its nature is empty and non-existent. This is principle [GP: li]. Because facts have no substance [GP: $svabh\bar{a}va$] they merge together in accordance with principle. And because the dust has no substance, it universally penetrates everything. For all facts are no different from principle and they are completely manifested in the dust.

As is immediately clear, the lack of substance $(svabh\bar{a}va)$ is playing an important role in all this. What, exactly, is interpendent through? And what has this to do with the lack of $svabh\bar{a}va$?

5.3 Interpenetration

A simple way to see this is to go back to our representation of empty objects.²⁹ As we saw, the doctrine of emptiness implies that the metaphysical structure of an object is given by a tree, every branch of which is infinite. Now, as an example, consider a magnet. Let n be its north pole, and let s be its south pole. The north pole, being a north pole, depends on the south pole. So the tree for n, looks like this:



where ρ is whatever the relationship is between two poles. But of course, the south pole, being a south pole, depends on the north pole. So if we take account of this in our diagram, we obtain:

²⁸Chan (1969), p. 36.

²⁹The matter is discussed in more detail in Priest (2015) and Priest (2018), ch. 8.



The tree for n has the tree for s as a sub-tree, and vice versa. Moreover, as the diagram makes clear, this feature will repeat itself *ad infinitum*—just like the images of the two mirrors facing each other.

n and s intermingle metaphysically in the most intimate fashion. We may take the way they do so to be interpenetration. That is:

• Two objects interpenetrate [ji] if (the tree for) each is a part of (a tree for) the other.

That two objects interpenetrate is possible only because the branches are infinite—it could not happen if all branches were finite—and this is so because every object is empty.

With this understanding of interpenetration, the Huayan conclusions quickly follow. Let us write l for li and s_1 and s_2 for two example *shi*. Then since l is empty, and interpenetrates with each *shi*, its metaphysical tree looks like this:

$$l \xrightarrow{\times} s_1 \cdots \xrightarrow{\times} s_1 \xrightarrow{\times} s_1 \xrightarrow{\times} s_2 \cdots \xrightarrow{\times} s_2 \xrightarrow{\times} s_2 \xrightarrow{\times} s_1 \xrightarrow{\times} s_2 \cdots \xrightarrow{\times} s_2 \cdots$$

That is, *lishi wuai*. But exactly the same diagram shows that s_1 and s_2 interpenetrate. That is, *shishi wuai*.³⁰

³⁰What is going on here is essentially as follows. This relationship of interpenetration is clearly symmetric. (If *a* interpenetrates with *b* then *b* interpenetrates with *a*.) And a little thought shows that it is transitive too. (If *a* interpenetrates with *b* and *b* interpenetrates with *c*, then *a* interpenetrates with *c*.) A sub-tree of a sub-tree is a sub-tree. s_1 and s_2 interpenetrate with *l*. By symmetry, *l* interpenetrates with s_2 , and so my transitivity, s_1 interpenetrates with s_2 .

As Chengguan says in his Prolog to Huayan (Huayan jing shu zhu):³¹

Because they have no selfhood [GP: $svabh\bar{a}va$], the large and the small can mutually contain each other... Since the very small is very large Mount Sumeru is contained in a mustard seed; and since the very large is the very small, the ocean is included in a hair.

5.4 Reduction and Holism Again

Let us finish by returning to the question of reductionism and holism again. In the Huayan picture, every element of reality, whatever it is, causally interacts (in our various senses of causation) with every other every other element.³² Clearly, this is a very global form of holism. Indeed, the metaphor of the Net of Indra is as striking a visual depiction of holism as one might wish.

6 Conclusion

Buddhism, as I said at the start, is not one thing. In particular, there are significant disagreements of a metaphysical kind between different schools of Buddhism. The causal structure of the cosmos is one such difference.

We have seen this to be the case by looking at the relevant parts of three Buddhist schools of thought: Abhidharma, Madhyamaka, and Huayan. Abhidharma can be naturally seen as having a reductionist account of causation. Huayan clearly provides a holist view.³³ Madhyamaka is poised somewhere in the middle—appropriately enough, for the Middle Way School. Its framework accommodates both reductionist and holist positions, the actual truth of the matter being determined by the investigations of empirical science.

The question of whether causation is reductionist or holist is, of course, a contentious question in Western philosophy. As we have seen, it is no less so in Buddhist philosophy.

³¹Chang (1972), p. 165.

 $^{^{32}}$ For a discussion of the holism of Fazang's specifically mereological views, see Jones (2009).

 $^{^{33}}$ For an explicit contrast of the two schools in this regard, see Jones (2015).

Glossary of Chinese Characters

Chengguan: 澄觀 Dao: 道 Dushun: 杜順 Fazang: 法藏 foxing: 佛性 Huayan: 華嚴 Huayan fajie xuan jing: 華嚴法界玄鏡 Huayan jing shu zhu: 華嚴經疏注 Huayan jing yi hai bai men: 華嚴經一還百門 Huayan wujiao zhang: 華嚴五教章 ji: 即 Jin shizi: 金獅子 li: 理 lishi wuai: 理事無礙 shi: 事 shishi wuai: 事事無礙 Yintuoluo wang: 因陀羅網

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