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On the Ontology of Composites in Abhidharma Buddhism

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ABSTRACT

Abhidharma Buddhism maintains that the only ultimately real (*paramārtha*) entities in the universe are *dharmas*, which are simples. What then is the ontological status of composites on this theory? One possibility is that Abhidharma Buddhists deny the reality of composites. We argue, however, that Abhidharma Buddhists affirm the reality of some composites, based on the causal efficacy of the composites. This depends on distinguishing between two notions of reality—ultimate reality (*paramārtha*) and substantial reality (*dravyasat*). If an entity is causally efficacious, it counts as substantially real. Abhidharma Buddhists affirm the substantial reality of material composites (like the eye); in this case, the causal powers of the composite are of the same type of the causal powers of the constituent dharmas. Abhidharma Buddhists also affirm the substantial reality of mental composites (like sensory episodes), which are composed of diverse kinds of dharmas. We argue that in the latter case Abhidharma Buddhists are committed to some form of emergentism.

1 | Introduction

Some of the best known Buddhist arguments against the existence of the self appeal to the idea that the putative self is ultimately composed of more basic parts (*Samyutta Nikaya* 5:10; *Milinda-pañha* 3.1.1). While we might want to say that the parts that compose a putative self really exist, we should say no such thing about the self itself. The parts exist, but the self doesn't. Although this argument is focused on the self, there is a more general issue here. Does the mere fact that a putative entity is composed of parts show that the entity doesn't really exist?¹ This is a basic question about Buddhist ontology, and it arises naturally in the Abhidharma tradition. According to Abhidharma Buddhists, the universe is composed of simple *dharmas*, which are the only ultimately real entities. But there is disagreement among Abhidharma schools and philosophers about the ontological status of *composites of dharmas*? We will argue that an important strand of the Abhidharma tradition affirms the existence of some

composites. In addition, we will argue that it's plausible that Vasubandhu is committed to emergentism about some mental composites, according to which the mental composites make causal contributions that cannot be completely captured by the causal contributions of the basic entities that make up the composite. We begin by considering a recent argument that Abhidharmikas are mereological nihilists, denying the existence of all composites.

2 | Abhidharma Buddhists Are Not Mereological Nihilists²

2.1 | From Chariots to Nihilism

According to an influential interpretation (Siderits 2011), Abhidharma Buddhist philosophers are committed to the following inconsistent triad:

¹ The term "real" is ambiguous. The OED lists 12 meanings for the adjective uses and many more when it is used as a noun or adverb. So, it should be no surprise that it is ambiguous in the Buddhist literature too. There are at least two meanings in Sanskrit which are at issue in this paper: *dravyasat* (substantially real) and *paramārthasat* (ultimately real). We will disambiguate these as we proceed.

² Siderits makes blanket claims on behalf of Abhidharma philosophers. But, as we shall see in this section, there are many important doctrinal differences among schools and philosophers that belong to the Abhidharma tradition.

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- S1. No composites are real.
- S2. Conscious episodes are composites.
- S3. Conscious episodes are real.

It's clear that Abhidharma philosophers accept S2. For instance, the conscious experience like the sensory episode of seeing blue is a composite of several *dharmas*. A sensory episode of seeing blue includes: a *citta*³ *dharma* resulting from the contact between an eye and an instance of blue, a cool feeling *dharma*, a discrimination of blue *dharma*, etc. Something similar holds for mental cognitions like thinking that “the sky is blue”; this is also a conscious experience composed of several *dharmas*. Hence, Abhidharma Buddhists need either to reject S1 or S3.

S1 states the mereological nihilist thesis, according to which, strictly speaking there are no mereological sums—only impartite things are strictly real (Siderits 2015, 97).⁴ Most philosophers would regard this as the most controversial claim here. Surprisingly, Siderits (2011) argues that Abhidharma Buddhists ought to reject S3. He writes, “There is no experiencing subject, not even a momentary one, nor is there the inner subjective realm. Consciousness is only conventionally and not ultimately real” (ibid., 329). This is a bracing conclusion. Abhidharma Buddhists will agree with Siderits that there is no experiencing subject but they will not accept that the inner subjective realm is not real. The latter conclusion is antithetical to the Buddhist project. Among other problems, it fails to preserve the phenomenological integrity of meditation practices that are central to the tradition. Abhidharma Buddhists, indeed all Buddhists, should be committed to saving the reality of conscious experiences.

In what follows, we focus on a seminal text, Vasubandhu's *Abhidharmakośabhāṣya* (*Treasury of Higher Knowledge with Self-Commentary*; henceforth *AKBh*), to show that it is a mistake to think that all Abhidharma philosophers endorse S1. The *AKBh* is an influential treatise on Abhidharma Buddhist doctrine. The *Abhidharmakośa* is a systematic exposition of the philosophical views of Sarvāstivāda Abhidharma school and the *bhāṣya* (self-commentary) presents Vasubandhu's critique from a Sautrāntika perspective. We will also draw attention to Dignāga's *Ālambanaparīkṣa* (*Investigation of the Percept* henceforth *AP*).⁵

Why does Siderits think that Abhidharma Buddhists are committed to mereological nihilism? It's largely because mereological nihilism seems to ground an important argument against the existence of selves: the infamous chariot argument found in the *Milindapañha*, an important text in the Theravāda Abhidharma school. Here is part of the philosophical exchange between Nagasena and King Milinda:

■ Nagasena: Is the banner-staff the chariot?

Milinda: Indeed not, Sir.

Nagasena: Is the yoke the chariot?

Milinda: Indeed not, Sir.

Nagasena: Are the reins the chariot?

Milinda: Indeed not, Sir.

Nagasena: Is the goading-stick the chariot?

Milinda: Indeed not, Sir.

Nagasena: Pray, your majesty, are pole, axle, wheels, chariot-body, banner-staff, yoke, reins, and goad unitedly the chariot?

Milinda: Indeed not, Sir. (*Milindapañha*, 25–28, Trans. Siderits 2007, 53)

At this last step, Milinda concedes without the slightest protestation that the parts united are not the chariot. But that seems altogether too quick. Of course, the reins aren't the chariot and the yoke isn't the chariot. It's even plausible that the parts of a chariot dispersed in a field does not make for a real entity. Indeed, it doesn't make for a chariot! But when those parts are composed into a vehicle that conveys the king from place to place, at that point it *seems* that the chariot is indeed a real thing. Chariots seem real in the same sense that persons, trees and houses are.

Presumably there is a missing premise here. One premise that would do the required work is to claim that parts are real but a whole isn't real. Obviously, there is no thing that is both simple and the chariot. Siderits (2014) promotes this way of thinking about chariots as flowing from Abhidharma views, according to which, “the real is the concrete particular, and aggregation of particulars is the mark of the mental” (437). And this applies to the case of the chariot in particular:

... a chariot is actually not a real thing. The parts are real, but the whole that is made up of those parts is not. The whole can be reduced to the parts, it isn't anything over and above the parts. (2007, 54)

Siderits (2016) thus takes Abhidharma Buddhism to endorse *mereological nihilism*, the view that “strictly speaking there are no mereological sums” (97). This view is radical, for it suggests that chariots, persons, trees and houses, do not really exist. We can have a parsimonious, tidy ontology with mereologically simple atoms or *dharmas* (in Buddhist terminology), but this comes at a cost. Mereological nihilism flies in the face of common sense.

³ This term is ambiguous in the Abhidharma literature—it can be used in the sense of a *dharma* as well as composite of *dharmas*.

⁴ In his 2011, Siderits uses the label *Buddhists Reductionists*. He writes that Buddhist Reductionism “is grounded in a thorough-going mereological reductionism, according to which anything analyzable into a multiplicity of distinct constituents is not ultimately real” (2011, 311). In subsequent work, Siderits uses the label “mereological nihilism” for the view (2016, 97; see also Siderits 2025).

⁵ Although Dignāga is well-known as the founder of the idealist Yogācāra tradition, he is a disciple of Vasubandhu and wrote his own commentary on the *Abhidharmakośa*. The *AP* though is short text basically concerned with the status of the object of conscious perception. In the *AP*, Dignāga presents an analysis of perceptual cognition that is acceptable to his realist Abhidharma predecessors and undergirds his own idealist Yogācāra position (Duckworth et al. 2016, 8). Perhaps it is worth noting that later in his philosophical career, Vasubandhu also became a Yogācārin.

As Rea (1998) puts it “It just seems obvious that there are tables, chairs, computers and cars. The fact that some philosophical arguments suggest otherwise seems simply to be an indication that something has gone wrong with those arguments” (348). To address this kind of commonsense reaction, Siderits claims that the Buddhist Reductionist can appeal to the distinction between ultimate and conventional truths.

2.2 | The Two Truths

Siderits uses the two truths distinction as a strategy for explaining the apparent existence of the objects he eschews.⁶ The nihilist can maintain that even though chariots and persons do not really exist, terms like “chariot,” “I,” “Devadatta” are not merely empty sounds. The thought is that terms like “chariot” and “forest” are convenient designators for a collection of parts arranged chariot-wise or forest-wise. We can retain our ordinary thought and talk about chariots and people; we just need to appreciate that the claims we make about composites are only conventionally true.

Commonsense holds that chariots and many other composites really exist, but according to Siderits commonsense is in error. Siderits claims that mereological nihilism together with the two truths doctrine helps us to understand that even though there are no persons we all mistakenly believe that we are persons. For the mechanism that generates belief in a real “I” is the same as that in case of chariots and forests: hypostatization. So, Siderits, concludes “What we have in both cases is a many masquerading as a one” (ibid., 98). But that “one” only exists conventionally.

So, what is the textual basis for the two truths strategy? The following passage from Vasubandhu’s AKBh is the *locus classicus* of the contemporary discussion of the Abhidharma doctrine of two truths:

The Fortunate One has proclaimed four truths; he has also declared two truths, (1) conventional or relative truth (*saṃvṛti-satya*), and (2) ultimate truth (*paramārtha-satya*). What are these two truths? The cognition of a pitcher ends when the pitcher is broken; the cognition of water ends when, in the mind, one analyses water. The pitcher and the water, and all that resembles them, exist relatively or conventionally. The rest exists ultimately. (AKBh 6.4, adapted from Sangpo 2012, 1891)

Siderits uses this passage to derive the notion of two kinds of entities from the two truths. Siderits maintains that some mereological nihilists allow that some composite objects exist in a “loose and popular” sense (2014, 437). Siderits (2014) writes:

The Abhidharma term for this ‘loose and popular’ sense is ‘conventionally existent’ (*saṃvṛti-sat*); things that exist in this way are termed conceptual construc-

tions (they are *prajñapti-sat*). Abhidharma thus posits a two-tier ontology: ultimately real entities (the *dharma*s) that are genuinely impartite or non-composite; plus the ontological back-benchers, those composite objects to which we express ontological commitment in our everyday speech and thought. (437)

The notion of two truths, *paramārtha-satya* and *saṃvṛti-satya*, typically understood as ultimate and conventional truths is no doubt mentioned in AKBh but it is not nearly as foundational as in some Mahāyāna traditions (Lusthaus 2010, 101). This is reflected by the fact that Vasubandhu introduces the two truths briefly in the Chapter 6 on the *Explanation of the Path* as a distinction made by a Buddha (The Fortunate One) in addition to the four truths, and the distinction plays no major role in the AKBh.

2.3 | A More Important Distinction: Substantial and Conceptual Reality

Although the Madhyamakas make much use of the above distinction between two truths, the most prominent Abhidharma philosophers in the Indian tradition do not give this distinction a central role. Indeed, Vasubandhu’s argument for the no self-view in the AKBh makes no appeal to the two truths. Vasubandhu does not argue that selves and persons are *saṃvṛti-sat* (conventionally real) rather than *paramārtha-sat* (ultimately real). Rather, his arguments depend on another distinction between two kinds of entities: *dravyasat* (substantially real) and *prajñaptisat* (conceptually real). It seems when it comes to matters of ontology, the category of *dravyasat* is central to Sautrāntika Abhidharma philosophers. In the first Chapter of the AKBh 1.7, Vasubandhu begins his exposition of conditioned factors (*dharma*s) by offering us an etymology:

Saṃskṛta, conditioned factor, is explained etymologically as “that which has been made (*kr̥ta*) by causes or conditions [*pratyaya*] co-existing in assemblage (*sametya, saṃbhūya*).” There is no factor which can be engendered by one single cause or condition. (Sangpo 2012, 211)

He adds “Conditioned factors depend on causes (*sahetuka*); they are thus qualified as *savastuka*, i.e., *endowed with causes*” (ibid., 212). The term “*savastuka*” derives from “*vastu*” (literally an “object” or “substantial object”), and according to the Ābhidharmikas, signifies cause (*hetu*). Unlike the two truths, when it comes to matters of ontology of composites of conditioned factors, Vasubandhu frequently invokes the notion of *dravyasat* in the AKBh (e.g., 1.10d, 1.43d, 2.22d, 2.5, 2:46b, 2:47, 2.6, 4:113c, 4:3b-c, and many occurrences in Chapter 9). For Ābhidharmikas, more generally, causal efficacy is the criterion of reality. Gold (2022) explains the distinction between *dravyasat* and *prajñapti* as follows: “For Vasubandhu, everything that is real or substantial (*dravya*) is causally efficient, having specifiable cause-and-effect

⁶ We must note though that there is no *single* theory of the two truths in Indian Buddhism (Thakchoe 2025). There are many such competing theories, and there are many different ways of using the rubric of the two truths. Siderits uses it to downgrade the reality of the conventional truth, but in the Madhyamaka literature the two truths is also a way to vindicate conventional reality. To say that there are truths is not to say that one is false, o (The Cowherds 2011).

relations with other entities. Everything that does not have such a causal basis is unreal, and if anything, it is merely a conceptual construct, a mere convention (*prajñapti*).”

It’s worth stressing two elements here. First is a central principle in Abhidharma metaphysics:

The Causal Efficacy Principle: an entity is real if and only if it is causally efficient (*kāraṇabhāva śakti*). (See also, Pruden 1990, 135; Dhammajoti 2007, 143; Gold 2022; Siderits 2025, 31)

Second, the notion of reality that is invoked in the arguments about ontology that recruit causal efficacy is not *paramārtha-sat* (ultimately real) but *dravyasat* (substantially real). The key question is whether Abhidharma philosophers hold that the ultimately impartite real *dharmas* (*paramārtha-sat*) are the *only* causally efficient entities (*dravyasat*).

In this context, it’s instructive to note that Vasubandhu’s argument against the Buddhist Personalists is *not* that the person isn’t a simple *dharma*. Rather, he argues that the person is not causally efficacious and thus not substantially real (AKBh, Sangpo 2525-6). Since it’s clear that the person is not a *dharma*, why wouldn’t Vasubandhu just make this incontrovertible argument? Because showing that persons aren’t *dharmas* would not suffice to show that they are not substantially real. Elsewhere, in his discussion of *self*, Vasubandhu takes a two-pronged approach. If “self” is supposed to refer to *ātman*—a simple, then the self doesn’t exist since there is no such simple. Thus, he is arguing that the self is not a *dharma*. But he doesn’t leave it at that. He goes on to argue that if instead we think of the self as an aggregate, then its status is like that of *person*. It’s an aggregate that lacks causal efficacy and so relegated to being only conceptually real (*prajñapti*).

It therefore seems that whether an entity is simple or composite is not the critical issue when we are concerned to establish whether an entity enjoys substantial reality (*dravyasat*); what matters is whether it is causally efficacious. We illustrate this further by looking at the discussion about the reality of various composites introduced by Abhidharma philosophers, viz. *skandhas*, *āyatanas* and *dhātus*.

2.4 | Skandhas, Āyatanas, and Dhātus

The concept of five psycho-physical aggregates, *skandhas*, was introduced in the earliest canonical sources, the *Nikāyas* (also referred to as Sūtra literature) to describe the impermanent physical and mental elements comprising living beings. The *skandha* analysis is used in the *Nikāyas* as an antidote to the mistaken view of the self as a unitary persisting thing over and above the five impermanent psycho-physical aggregates. The philosophers in the Abhidharma tradition have a much broader goal in mind.

The Abhidharma exegesis of the Buddhist *Dharma* (teaching) in the *Nikāyas* attempts to provide an account of every possible type of sentient experience in terms of momentary *dharmas* that don’t implicate an enduring self (Ronkin 2022). All experiential events are understood as arising from the *dharmas*. It is useful to think about *dharmas* as atoms, but we must be careful to note that *dharmas* include both physical and mental phenomena, and are generally understood as evanescent events, occurrences, or dynamic properties rather than enduring substances (ibid.).

Rather than adducing a self as the thing that perceives or is the subject of consciousness, the Abhidharma accounts distribute cognition among 12 *āyatanas*—the six sense faculties (the usual five plus the mental sense faculty [*manas*], as well as their cognitive objects [color, taste, etc.]). In the AKBh Vasubandhu says, “the eye sees” or “consciousness cognises” to eliminate the misconception that there is a seer or experienter over and above the six sense faculties. The Ābhidharmikas say that it is the eye faculty that sees blue and the mental faculty that experiences *that the robe is blue*. (More on this in Section 3.3, See also Vasubandhu’s proof that the self does not exist (Sangpo 2012, 2524)).

The *dhatu* scheme breaks down the composites into three categories: the six sense faculties (five external senses and the mind); six kinds of cognitive objects (five kinds of sensory objects and the objects of mental consciousness); six kinds of consciousnesses (five sensory consciousnesses [e.g., seeing colors, hearing sounds] and mental cognition [e.g., experiencing blue skies, drum beats]). As we shall see in Section 3.3, the five sensory consciousnesses are the objects of mental cognition. The elements (*dhātus*) collectively account for the entirety of conscious experience; there is no need for an independent subject or owner of experiences. As is obvious, the list of 18 *dhātus* subsumes the *āyatanas* under it which means there is double counting some composites, but so be it.⁷

3 | Ābhidharmikas on the Reality of Composites

Ordinary perception is generally regarded as the paradigm example of sentient experience. The Ābhidharmikas offer a careful analysis of the causal processes involved in the generation of ordinary perceptual experience. The coarse-grained *skandha*-ontology is not well-suited for this purpose. This is the reason why the Abhidharma philosophers extend the five *skandha* ontology to include two other classes of entities: *āyatanas* (six sense-faculties and their respective objects), and *dhātus* (composite elements, including the six consciousnesses).

The discussion of these classification schemes begins with the following passage at AKBh 1.20ab asking for the meanings of the terms for the different kinds of composites:

What should be understood by the terms *skandha*, *āyatana*, *dhātu*?

⁷ It is worth pointing out that the term “*dhātu*” that we have rendered as element is variously translated as “element,” “factors” (Hanner 2021), Pruden (1990) prefers to leave it untranslated, when it is used in the Title of Chapter 1 of the AKBh which is called, “An Exposition of the Elements” (Sangpo 2012). But note the translation of “*dhātu*” as lineage in the quote from the same translation. This is to not a cause for alarm. The idea here, we think, is to signify that this classification groups the composite elements according to their lineage, that is whether they are mental or material.

20ab. (i) *Skandha* signifies heap [*rāṣi*], (ii) *āyatana* signifies gate of arrival or gate of arising [*āyadvāra*] [of thought and thought-concomitants (*cittacaitta*; ii. 23)], and (iii) *dhātu* signifies lineage [*gotra*] (genus). (Sangpo 2012, 236)

Abhidharma philosophers generally agree that *dharmas* are substantially real (*dravyasat*) because they are causally efficient, but it is less clear that *dharmas* are the only things in the Abhidharma ontology that are causally efficient. As we will see, there is evidence in the Abhidharma literature to support the claim that *some* material composites are substantially real (*dravyasat*). In Sections 3.1 and 3.2, we will focus on evidence from Vasubandhu's AKBh. In Section 3.3, we will present evidence from AKBh and Dignāga's AP to show that most Abhidharma philosophers think that conscious states are substantially real (*dravyasat*). Dignāga's AP presents the Abhidharma view about the structure of perception, one that will be acceptable to various philosophers in the tradition who have differing ontological commitments.⁸

3.1 | The Reality of *Skandhas* (Aggregates) in the AKBh

We begin with the internal debate among the Ābhidharmikas in the AKBh (1.20) about the meaning and reality of composites, which starts by quoting the Sūtra:

In the Sūtra, *skandha* signifies heap or group or mass (*rāṣi*):

Whatever material form [*rūpa-dharma*] there is, (1) past or future or present (2) internal or external (3) gross or subtle (4) inferior or superior (5) distant or near, if all this material form –that which is past, etc. – is grouped together into one heap this is called *aggregate of material form* (*rūpaskandha*). (Sangpo 2012, 236)

The subsequent discussion examines the ontological questions about the substantial reality of the composites by considering causal efficacy. Much of the debate concerns an internal disagreement among the Ābhidharmikas regarding the causal efficacy and hence the substantial reality of certain composites:

The Vaibhāṣika says: - The Sūtra teaches that all material form, i.e., past material form, future material form, etc., is, individually [*pratyeka*], called *skandha* in the same way that it teaches that hairs, etc., are the elementary substance earth thus each [*ekaśas*] “real” (atomic) element of past material form, future material form, etc., is given the name of *skandha*. Thus the aggregates (*skandha*) do exist as a real entity

[*dravyasat*] and not as a provisional or conceptual entity [*prajñapti-sat*]. (ibid., 239)⁹

Already, we see here a representative of the Vaibhāṣika school issue a broad rejection of mereological nihilism: both individual atoms as well as aggregates are signified by the term “*skandha*,” and both are equally substantially real. Vasubandhu is more cautious—he does not want to use the term *skandha* so as to include individual atoms. He remarks that this sweeping claim conflicts with the Sūtra, according to which, *skandha* signifies heap or group or mass (*rāṣi*):

[Vasubandhu's] Reply: - This interpretation is inadmissible, for the Sūtra says: ... if one puts together all this material form, this is called aggregate of material form.

[Hence, the aggregates, too, exist as a conceptual entity just as the heap does.] (ibid.)

The reply seems to suggest that Vasubandhu thinks that aggregates (*skandhas*) are merely conceptual entities. It is important to pause here to think about what is behind the reply. As we will see later, Vasubandhu is clearly committed to the substantial reality of some aggregates. One explanation for his rejection of the substantial reality of *skandhas* is that the traditional definition of *skandhas* as in the Sūtra quoted above includes past and future factors. And Vasubandhu's metaphysics is presentist.¹⁰ Even for ultimate entities, *dharmas*, only the present ones exist. According to Vasubandhu, past and future material *dharmas* are not substantially real as they are not causally efficacious (see Dharmajoti 2015, chap. 3). For example, the nature of material *dharma* is to offer resistance to or obstruct another material *dharma* from occupying its place. Vasubandhu says that past and future material *dharmas* cannot offer such resistance or obstruction (Sangpo 2012, 226). Since all past and future material *dharmas* are included in the material aggregate *rūpaskandha*, Vasubandhu says that the aggregate exists only conceptually as a heap. The same point applies to the mental aggregates (*nāmaskandhas*). Thus, the denial of reality to enduring aggregates does not imply a denial of momentary composites.

3.2 | The Reality of *Āyatanas* (Sense-Faculties and Their Objects) in the AKBh

The most telling evidence for our claim that Vasubandhu and other prominent Abhidharma philosophers are not mereological nihilists comes from the discussion following the AKBh passage in the last section. Here, the Sautrāntika draws out a worrisome apparent implication of Vasubandhu's claim that the aggregates are conceptually real because they are heaps:

The Sautrāntika: - If this is the case [i.e. the *rūpaskandhas* are merely conceptually real], then the material sense-spheres (*āyatana*), i.e., the

⁸ Though Dignāga himself is an idealist (he belongs to the Yogācāra school of Buddhist epistemologists), he is not arguing for idealism in the AP; the text is primarily epistemological in force and may be thought of as creating the groundwork to argue for idealism (Duckworth et al. 2025, 8).

⁹ Sangpo translates “*prajñapti*” as nominal, but for consistency with the usage in contemporary literature, we will translate it as “conceptual” rather than “nominal.”

¹⁰ For an excellent discussion of this debate between Vasubandhu and the orthodox Sarvāstivādins as well as Saṃghabhadra's reply to Vasubandhu on behalf of the Sarvāstivādins, see Williams (1981).

sense-faculties and the objects of the five sensory consciousnesses, must also exist only as a provisional or conceptual entity, for the quality of being a “gate of arising” (*āyadvāra*) of thought and thought-concomitants (*citta-caitaiskas*)” does not belong to atoms taken one by one, which alone are real, but to the collections (*bahu*) of atoms which constitute the eye sense-faculty, the visible object, etc.

Vasubandhu replies as follows:

Each of these atoms possesses individually the quality of being a “gate of arising of thought,” of being the cause [*kāraṇabhāva*] of consciousness. If you do not accept this doctrine, you deny to the sense-faculty—considered in its totality—the quality of being a cause of consciousness, for it does not produce the consciousness by itself and without the cooperation of the object-field [*viśayasahakāritva*]. (ibid., 239–240)

The Sautrāntika is concerned that if the material aggregate is not substantially real then the material sense-faculties, for example, the eye, would also have to be considered as only conceptually existent, for a sense faculty is also a heap or composite of material *dharmas*. This would be a reductio: the eye and the visible form are the efficient causes of visual consciousness, which entails that they are substantially real. In response, Vasubandhu clarifies his position. According to him, both the atoms (*dharmas*) individually and the composite faculties and their objects are causally efficient and hence substantially real.

There is a substantive interpretive issue at this point. When Vasubandhu says that each of the individual atoms possesses the quality of being a gate of arising, what does he have in mind? It’s clear enough that he is not a mereological nihilist. For he takes it to be a reductio to be forced to deny that the sense-faculty “considered in its totality” has “the quality of being a cause of consciousness.” This also fits with Dhammajoti’s reconstruction of the text:

... Saṃghabhadra does not seem to be entirely alone or innovative in the way he considers the efficacy of the atoms. In the AKBh [i.e., our section here] Vasubandhu argues for the reality of the *āyatana* ... by saying that an aggregate of atoms, constituting an *āyatana*, together serve as the cause for cognition, each individual atom contributing to the causal efficacy. (Dhammajoti 2007, 143)

But in what way does the individual atom makes its contribution? In his commentary on this passage of the AKBh, Yasomitra offers examples that suggest a particular interpretation:

it is like the case of many people gathering sufficient strength to drag a log, each contributing his share of strength; and again like the case of many strands of hairs becoming sufficiently visible, each single piece of hair contributing to the visibility. (Ibid.)

These examples suggest that what Vasubandhu has in mind is that the causal power of the totality is a sum of the causal powers of the atoms.

In Yasomitra’s example of log dragging, the causal power of the totality is a certain amount of strength and this totality is simply the sum of the individual contributions of each person. Note that this is a reductionist story—we can explain the causal power of the totality in terms of the causal powers of the constituents. But it is far from a nihilistic reductionism. On the contrary, on this view the aggregate must be acknowledged to be a real existent because the log gets dragged in virtue of the aggregation. Thus, we might call this view a *positive* reductionist view.¹¹

The positive reduction view is polemically analogous to the identity theory in contemporary philosophy of mind (e.g., Kim 2011, 217). The identity theory says that the problem of mental causation for the materialist is solved because mental-state types are brain-state types: pain simply *is* C-fiber firing. This is not nihilistic about pain. Instead, it states that what pain really is, as science now reveals, is this physical process in the nervous system. Just as the identity theory affirms the existence of pain by reducing it to C-fiber firing, so too the Abhidharma account affirms the existence of the eye via reducing it to a collection of eye atoms.¹²

There is thus clear evidence that some Ābhidharmikas, namely the Sarvastvādins and Sautrāntikas, are not mereological nihilists: they do not think of the material sense faculties as simple *dharmas*—sense faculties are composed of many atoms—and yet they are causally efficacious and hence real. The kinds of atoms and the arrangement of the atoms of the sense-faculty and their object-fields is discussed by Vasubandhu in the commentary on AKBh Chapter 1.44 (Sangpo 2012, 297–299). For example, the atoms of the tongue sense faculty are arranged on the upper surface of the tongue like a half-moon; the atoms of nose sense-faculty are arranged liked needles inside the nostrils. Vasubandhu concludes this discussion by saying:

It does not happen that consciousness is produced by one single atom of a sense-faculty, by one single atom of an object-field. *In fact, the five categories of consciousness have the aggregations for their basis and their cognitive object.*

The result of this is that atoms [by themselves] are not seen [*adrśyatva*]; they are therefore qualified as invisible (*anidarśana*; i. 29ab; iv. 4). (ibid., 299, emphasis added)¹³

¹¹ In a related discussion about the Personalist view in the AKBh, Ganeri (2012b) argues that Vasubandhu does not fully distinguish between reductionism and emergentism even though some other Abhidharma philosophers, the Sarvastvādin Saṃghabhadra, in particular, does make this distinction.

¹² Of course, the identity theorists were wrong about the nervous system and also, many think, about the entire idea.

¹³ Dignāga uses the same principle to argue that individual *dharmas* are not perceivable, so they cannot play the role of a percept.

Here Vasubandhu seems to be in agreement with the Sarvāstivādins that the sensory faculties and the objects of direct perception are assemblages of atoms but nonetheless substantially real (*dravyasat*)—because they are causally efficacious. As Vasubandhu puts it in the quote above, the five kinds of sense consciousness—visual consciousness, olfactory consciousness, gustatory consciousness, etc.—have aggregations (composites as we call them) sense faculties and cognitive objects—as their causes. The eye-faculty is composite of atoms structured in a certain way. Its cognitive objects are composites too: the eye-faculty does not sense individual atoms, it senses a composite since individual atoms are invisible. The cognitive objects, as we show in Section 3.3, are not *mere* collections of atoms, otherwise they would be only conceptually real.

Furthermore, it is important to recall that Vasubandhu’s reason for denying the substantial reality of the *skandhas* is not that they are composites. He is not concerned by the fact that the material aggregate is a heap or composite of material *dharmas*. Rather, as noted above, he is concerned by the fact that the material aggregate is presumed to contain *past* and *future dharmas*. What matters for substantial reality is causal efficacy. Consider his opening argument in Chapter 9. He says that everything that we know is known by one of two means: perception or inference. The objects of the five material sense-faculties (color, sound, etc.) and the objects of the mental faculty (namely the percepts of colors, sounds, etc.) are known directly, by perception. And, the five sense *organs* (eye, ear, nose, tongue, and skin) can each be inferred from their causal contribution of the awareness of their respective sensory objects. Persons are not known by perception. But neither can they be inferred to exist from their causal contribution. This is because persons as subjects of experience make no causal contribution—a complete explanation of perception can be offered by using the sense-faculties and their objects. Gold (2022) draws a further conclusion from this argument:

Vasubandhu does not list the five aggregates here, but his discussion of perception and inference stands in for having done so. Any Buddhist scholastic would be able to see that he has claimed to have proven the reality of the twelve sense bases (*āyatana*), and these twelve are easy to correlate with the five aggregates. The first aggregate, the physical (*rūpa*), includes the five sensory organs and their five objects. The second, third, and fourth aggregates—feelings (*vedanā*), thoughts (*saṃjñā*), and dispositions (*saṃskāra*)—are kinds of mental objects. The fifth aggregate, consciousness (*viññāna*), is equivalent to the twelfth sense base, the mind.

Gold is right that the *āyatanas* (faculties and their objects) are included in the aggregates, but not quite right in saying that Vasubandhu has proven the substantial reality of the five aggregates (*skandhas*). We think that Vasubandhu does not mention the *skandhas* in this context, not because it would be redundant but because he does not endorse the substantial reality of *skandhas*.¹⁴

3.3 | The Reality of Conscious States

So far we have argued that according to prominent Ābhidharmikas, material sense faculties and their sensory objects are substantially real composites. However, our main reason for interrogating mereological nihilism is that it implies that conscious experiences are not real. This conclusion is antithetical to Abhidharma philosophy, which is concerned with explaining the phenomenology of conscious experiences without there being a subject of experience. To the question about who sees or cognizes, Vasubandhu’s answer is simply “consciousness cognizes” just as the “bell rings.” He writes:

This manner of speaking: “Consciousness apprehends [the object]” [*viññānam, viññāti*], [implying that consciousness is an agent,] may also be justifiable from another point of view. Successive moments of consciousness arise in regard to the object: the previous moment is the cause of the later moment; [in a stream of consciousness,] consciousness is therefore the cause of consciousness; it is therefore called agent (*kartr*) since it is the cause. Similarly when we say that a bell rings. (Sangpo 2012, 2564)

It seems odd to say consciousness is the cause of consciousness. Vasubandhu is here using consciousness in two different senses: sensory consciousness and mental consciousness. The claim, as we argue below, is that sensory consciousness causes mental consciousness.

Insofar as sensory consciousness causes mental consciousness we can say that the former has specifiable effects. The causal efficacy principle entails that sensory consciousness is substantially existent. Hence, we can be confident that at least some Ābhidharmikas will disagree with Siderits’ claim that conscious experiences are not substantially real. Moreover, some kinds of conscious meditative experiences are central to the Abhidharma and Buddhist tradition more generally—they are instrumental in attaining awakening. However, Siderits is right that conscious experiences are composites. As we’ve seen, Vasubandhu, Saṃghabhadra and other prominent Ābhidharmikas do affirm the existence of some composites, viz., the sense faculties. But the situation with conscious experiences is rather more complex, and it requires further argument to show that conscious experiences themselves are substantially real composites. In this section, we dig deeper into the Abhidharma account of structure of conscious experiences by drawing primarily on the AKBh, but we will also recruit the Dignāga’s AP at relevant points.

In the Abhidharma corpus, there are three basic terms used with reference to consciousness: *citta*, *manas* and *viññāna* (2.34ab AKBh, Sangpo 2012, 534). The term *citta* is polysemous. Gethin (forthcoming) explains:

The term “*citta*” is used in the Abhidharma corpus in two senses: First to identify the bare *dharma* whose characteristic is to be conscious of an object. Second

¹⁴ Of course, Vasubandhu does not deny that *skandhas* like pots and armies are conceptually or conventionally existent.

as a term for a particular composite or assemblage of *citta* and *caitasikas*, that is, a particular episode of consciousness is composed of the *dharma* referred to as *citta* (or *manas* or *viññāna*) and a set of associated ‘mentalities’ (*caitasika*) all directed at a particular object. Using *citta* in this second sense, the Ābhidharmikas talk of different types or classes of *citta*. (chap. 4)

Citta in the first sense is the abstracted quality (*dharma*) of bare consciousness, but it cannot occur by itself: it always occurs associated with a number of additional mental factors (*caitasikas*) that are causally implicated in the production of sensory episodes. Thus, *citta* as bare consciousness can never be experienced as such. A sensory episode that is consciously experienced at a given moment is a unique assemblage, a *citta* (in the second sense)—of *citta* (in the first sense) and *caitasikas* (its “associated” mentalities or mental factors such as feeling, attention, volition, etc.).

The question then is how are assemblage-*citta* and *dharma-citta* associated? The term that is translated as “associated” is “*saṃprayukta*,” which literally means, being used or employed together; but the term is also used by the Sarvastvādins to refer to simultaneous or co-existent causes (*sahabhūhetu*). Before we say anything about the notion of associated causes it might be useful to get clear about the constituents of the unique assemblage.

According to Ābhidharmikas, some of the mental factors (*dharma*s) that compose conscious episodes are universal, that is, they accompany every conscious episode; others occur in some but not all conscious episodes. Among the latter, some are invariably wholesome, others are invariably unwholesome, and some others have an undetermined valence. There is some disagreement among the Ābhidharmikas about the exact number of universal *dharma*s associated with every sensory episode (*citta* in the second sense) but most Ābhidharmikas have the following five on their list: sensation, intention, contact, attention and ideation. According to the AKBh, there are ten universal mental factors (*caitasikas*):

2. 24. (1) Sensation, (2) intention, (3) ideation, (4) predilection, (5) contact, (6) understanding, (7) mindfulness, (8) mental application, (9) resolve, and (10) concentration coexist in any thought. (ibid., 513)

We will use the standard Abhidharma example of “cognising blue” to explain the Abhidharma account of sensory episodes, noting for now that the Abhidharma draw a distinction between sensory episode or percept and mental cognition. (This equation of sensory episode and percept may sound odd, but note that Abhidharma don’t make a distinction between a mental process and the state resulting from a mental process.) A sensory episode or percept is triggered by the presence of a sensory faculty (e.g., eye) and its proper object (e.g., blue) in its vicinity. But the

mere presence of these two is not sufficient for the conscious experience. The Ābhidharmikas add that the universal factors such as *contact* between eyes and blue color, *mental application* or *attention* to the blue, *ideation* or some discrimination of blue, *sensation* or *feeling* of coolness, *intention* directed to blue, etc. are also necessary for the cognizing blue. Although there is some discrimination of blue, concepts are not involved at this stage. The eye faculty can discriminate between color categories blue and yellow, without implicating concepts and language (see also Block 2023, chap. 6).

We may be tempted to think of these universal factors as causal consequences arising from the sense-object contact, but that’s not how the Ābhidharmikas think about it. The universal mental factors are more like reflexes that arise at the moment of sense-object contact. In his discussion of the arising of the cognition and the relation between *citta* in the first sense and associated mental factors (*caitasika*), Vasubandhu says that:

Citta and its-concomitants are associated (*saṃprayukta*) because of five samenesses or equivalences (*samatā*) ... That is to say: the thought-concomitants (sensation, etc.) and thought are associated:

1-3. because they share the same basis, the same cognitive object and the same aspect or mode of activity (*akāra*);

4. because they [arise and pass away] simultaneously;

5. because, in this association, each kind is represented by only one real entity (*dravya*): only one thought can arise at any given moment, and one sensation (*ekam vedanaādravyam*), one ideation (*saṃjñā*), one thought-concomitant of each kind are associated with this one single thought (AKBh 2.34d, ibid., 536).

As we understand Vasubandhu here, he is arguing that these concomitants are parts of the whole that is a mental episode.¹⁵ All the mental factors associated with the episode arise at the same time, and although instances of each kind of mental factor are present, only one conscious episode arises at any given moment. The sensory episode or percept is not a simple *dharma*, it is a composite constituted by many associated mental factors.

Dignāga makes the same point in the AP. The AP is a very short text, with only eight verses. But this terse text is supported by an autocommentary by Dignāga himself and many subsequent commentaries. Here is an excerpt of the argument that concerns us:

Even if sensory cognition were caused by fundamental particles,

¹⁵ The relationship between *citta dharma* and its concomitants (*caitasika*) is also of concern to Buddhaghosa, a prominent philosopher of the Theravāda tradition which may be regarded as the Pāli offshoot of the Abhidharma tradition. Ganeri (2017, 37–38) suggests that Buddhaghosa argues for an emergentist view consciousness. Buddhaghosa says that concomitants are co-emergent (*sahajāta*), co-dependent (*sahagata*), and conjoined (*saṃsaṅgha*) with consciousness (*citta*) (*Kathāvatthu* 337) so that they “arise together, run together, cease to exist together and thus exhibit a harmonious unity” (Karunadasa 2010, 72). We can think of Buddhaghosa’s account of consciousness as an event that supervenes of on the *citta-cetasika* complex. As Ganeri puts it, “A single moment of consciousness—*a citta-cetasika* complex—is a unified emergent dynamical system” (also see diagram 2.1, Ganeri 2017, 38).

- █ It would not have particles as its object
- █ Because they do not appear to cognition,
- █ Any more than the sense faculties do
- █ It does not come from that of which it has the appearance
- █ Because, like a double moon, [mere] collections are not substantially real.
- █ Thus, neither kind of external object
- █ Makes sense as an object of cognition.
- █ Some maintain that collected features are the cause.
- █ Features of minute particles
- █ Are not the object of cognition
- █ Any more than things like solidity are.
- ...
- █ But an internal cognitive object,
- █ Which appears as though external, is the object.
(Duckworth et al. 2016, 38–39)

The question that concerns Dignāga is: what is object of the perceptual (mental) cognition? (Duckworth et al. 2016, 13). His answer is that it cannot be the fundamental particles or the sense faculties. Nor can it be a *mere* collection of fundamental particles. A perceptual cognition is caused by a combination of conditions: the co-existent and associated *dharmas* that stimulate the eye sense faculty, the mental processes and the mind, the sensory episode or percept (*ālambana*). In the auto-commentary on the AP, Dignāga clarifies that the percept must meet two conditions: (1) it must be the *cause* of the resulting mental cognition and (2) it must be what *appears* to us as the intentional object of the cognition. Dignāga argues that an individual *dharma* is causally efficacious but it is too minute to *appear* as an object of cognition. So, an individual *dharma* cannot be a percept because it does not meet the second condition. And mere collections of *dharmas* cannot be a percept because they are not causally efficacious, they are just like heaps or *skandhas* and thus only conventionally or conceptually real. Hence, mere collections of *dharmas* are not substantially real and thus they cannot meet the first causal condition. Dignāga then concludes that the percept is an internal object generated by sensory episode. Though a composite object—since it is composed of *citta* and *caitasikas*—it is

substantially real because it is causally efficacious. It is the cause of the mental cognition. For example, sensory consciousness of blue is the object of the mental cognition “It is blue.”¹⁶

3.4 | The Causal Power of Sensory Episodes

We now turn to the crux of the matter, which is the ontological status of these sensory episodes or percepts. As we’ve seen, Vasubandhu’s treatment of the sense faculties (e.g., the eye) is a form of reductionism that nonetheless affirms the substantial reality of the composite. But we think that Vasubandhu’s treatment of sensory episodes or percepts (e.g., seeing blue) doesn’t permit a positive reductionist account, according to which the causal powers of the aggregate are of the same type as the causal powers of the *dharmas*.

One important difference between sensory faculties and sensory episode is that the former are composed of one type of atom (e.g., eye atoms) and the latter is composed of several types of factors (e.g., *attention* to the blue, *discrimination* of blue, *intention* directed to blue). This rules out treating sensory episodes in the simple positive reductionist way that applies to the sensory faculties. The second important difference is that in the case of the sensory faculties, the causal power of the sensory faculty is the same type of causal power as that of each of the atoms. In the log-dragging analogy, each person contributes some strength towards the combined strength of the whole, until the combined strength meets some key threshold for moving the log. Similarly, each of the eye atoms individually possesses a minute visual capacity to see, and these capacities combine to produce the full visual capacity of the eye-faculty. The situation is quite different for sensory episodes. None of the factors that compose a visual consciousness, for example, seeing blue (*attention*, *discrimination*, *intention*) possess even a minute capacity to see blue, to attend to blue, to discriminate blue, or to be directed to blue except insofar as all these factors are brought together in the composite state. The percept blue emerges when all the factors function together as parts of a whole. Thus, it’s only because these parts compose a whole that the visual episode or percept emerges—the percept is the distinctive whole produced by the mental process and not present in any of the *dharmas* individually, nor is it just a mere collection of *dharmas*.

The foregoing gives us some reason to think that Vasubandhu rejects positive reductionism regarding conscious states. We think there is a further reason to interpret Vasubandhu as rejecting reductionism about conscious states. To see why, consider a fireball. If water is poured on an oil fire, a fireball results. The water itself doesn’t burn. Nor does the oil mix with the water. Rather, the water expands rapidly, carrying the burning beads of oil with it. We can explain the causal contributions of the fireball entirely by appealing to the causal contributions of the water and of the oil. The oil burns and the water transports. The

¹⁶ Jonardon Ganeri offers a similar account of the composition of mental (perceptual) cognition though his concerns are different. As he puts it, “It is a key thesis of [Abhidharma] Buddhist philosophy of mind that there are proto-intentional psychological processes through the joint operation of which intentional experience is constituted” (2012a, 127). He thinks of this constitution relation as a bridge between the physical and the mental in the Abhidharma context. Sensory acquaintance, a “registering”—Ganeri’s term for sensory consciousness—is a mental state that arises on account of the physical process of a sense-faculty being impacted upon by proper sensible object in one’s surroundings. But, as we have seen, some universal mental factors or thought concomitants are implicated even at this stage of the production of sensory consciousness or what Ganeri calls “registration.” We are interested in the so-called association (*samprayukta*) relation between the constituents of the assemblage-*citta*. It is clear in this context that these Buddhists are thinking of assemblage-*citta* as a token conscious state arising in dependence on token mental factors that arise at the moment of sense-object contact.

causal contributions of the composite are exhaustively explained by the causal contributions of the components. This is basically a reductive explanation of fireballs.

As we've seen, according to Vasubandhu, in the case of conscious states, several different factors are all part of the conscious state. But what are the causal powers of this composite?¹⁷ Can the causal powers of the composite conscious state be explained entirely in terms of the causal contributions of the parts of the conscious state? In that case, conscious states would be analogous to fireball, and hence would be reducible to the component parts.

There is, however, an important reason to think this is not what Vasubandhu has in mind. His ontological critique of *persons* is precisely that the causal powers of the whole can be explained in terms of the causal powers of the parts. Vasubandhu would say *persons* don't have any causal powers; the causal work is done by real mental and material composites, for example, the faculties. The talk of persons is "shorthand" for a long description in terms of real parts. As with the fireball, the causal contributions of the composite *person* can be exhaustively explained by the causal contributions of the constituent parts. And it is for this reason that persons are not *dravyasat*.

Here, we see the crucial contrast with conscious states. Conscious states and material sense faculties are *dravyasat*:

If the self were a substance or real entity [*dravya*], separate like other entities it necessarily would be attained (i.e., known) (1) by the apprehension of direct perception as are the objects of the five sensory consciousnesses and of mental consciousness [mental faculty (*manas*)] or (2) by the apprehension of inference, as are the five sense-faculties [*indriya*] which are subtle matter.¹⁸ (Sangpo 2012, 2524)

Sense-faculties are known by inference because they have the power to generate sensory episodes or percepts. The percepts of color, taste, etc., generated by sense-object contact are known by direct perception. These percepts or sensory consciousnesses in turn cause mental consciousnesses. This statement explains Vasubandhu's remark that "consciousness causes consciousness." Individual mental *dharmas* or mere collections of such *dharmas* do not have the power to generate mental cognitions. It is only when the mental *dharmas* (*citta* and *caitasikas*) are part of the whole that is a sensory percept that a mental cognition results. Hence, Vasubandhu must regard sensory episodes as ontologically different from fireballs. The composite that is a sensory episode or percept makes some causal contribution that cannot be exhaustively explained by appealing to the contributions of each of the constituent parts.

According to many Abhidharma philosophers, sensory episodes have new causal powers to generate mental cognitions. The blue percept (sensory episode) can cause the mental cognition *it is blue*. As we have explained, each of the material sense organs are

restricted to their particular objects, for example, the eye cannot hear and the ear cannot see. It is only the mental faculty that can take as its objects the output of sensory faculties, i.e., percepts, as its objects, and the mental faculty can receive all the different kinds of sensory percepts (visual, olfactory, etc.). We find this expressed in the Mahāvedalla-sutra (*Majjhima-nikāya* 43):

Friend, these five faculties each have a separate field, a separate domain, and do not experience each other's field and domain, that is, the eye faculty, the ear faculty, the nose faculty, the tongue faculty, and the body faculty. Now these five faculties, each having a separate field, a separate domain, not experiencing each other's field and domain, have mind as their resort, and mind experiences their fields and domains. (quoted in Sharf 2018, 36)

The important point to gloss from this discussion is the mental faculty does not take individual *dharmas* as its inputs, rather the mental faculty generates mental cognitions on the basis of sensory percepts, which themselves are composed of several mental factors of different types.

3.5 | Summary

The common assumption uniting the Abhidharma philosophers of different sectarian affiliation, appears to be that *causal efficacy is the criterion of reality*. This gives us reason to doubt Siderits' (2025) claim that Abhidharma philosophers endorse a thoroughgoing mereological nihilism. If we are right, major Abhidharma philosophers, including Vasubandhu, do not endorse mereological nihilism. Entities that enjoy causal efficacy are substantially real, *dravyasat*. The principle of causal efficacy yields two ontological categories that are inconsistent with mereological nihilism. For sense faculties, Vasubandhu defends a positive reductionist view, on which the aggregation of the same types of atoms generates causal powers that combines the causal powers of the atoms, and this can enable new effects. For sensory consciousness, different types of factors constitute parts of the whole state, and the causal powers of this whole state cannot be exhaustively explained by appealing to the causal contributions of the components. (We chart the general outline of Vasubandhu's ontology in Figure 1.)

4 | Emergentism

In the previous section, we argued that Vasubandhu rejects mereological nihilism and affirms the reality of some composites. His treatment of sense faculties is a form of reductionism that affirms the substantial existence of the composites. But his treatment of sensory conscious states doesn't afford such a simple reductionist account. Sensory episodes are composed of different kinds of factors. And this multi-factored composite, a percept, has a causal efficacy that can't be exhaustively explained by appeal to the causal contributions of the constituent parts. Thus,

¹⁷ According to the Abhidharmikas, sensory conscious episodes are objects of mental consciousness, the *dharmas* though are not objects of mental consciousness.

¹⁸ Dignāga relies on this text from the AKBh at the end of the AP.

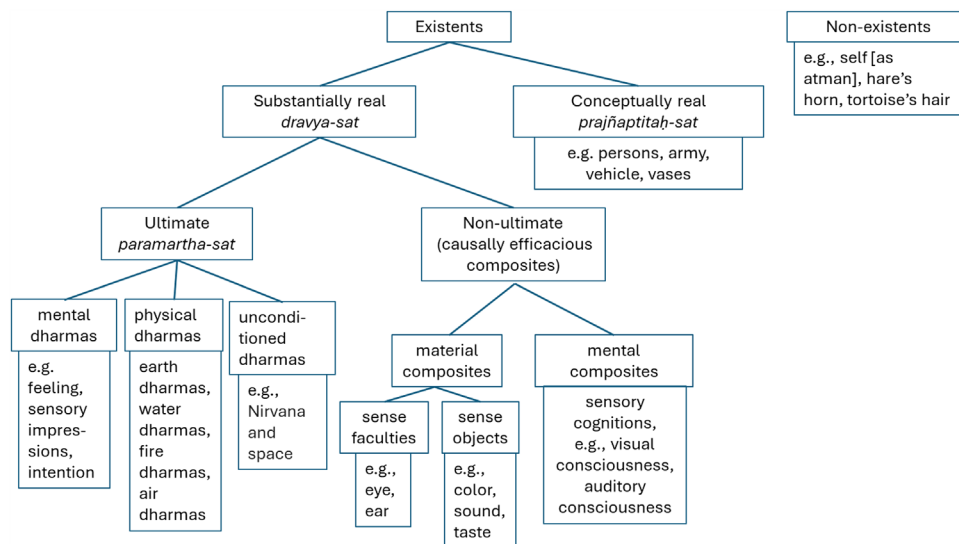


FIGURE 1 | Vasubandhu's Abhidharma ontology in the AKBh.

Vasubandhu is rejecting any simple reductionism that dispenses with higher level categories of entities. In philosophy of science, reductionism gets characterized in many different ways (see, e.g., Brigandt and Love 2023). Emergentism, as we use the term, entails a rejection of reductionism. In this section, we want to sketch two different kinds of emergentism, and then in the following section, we will consider which of these better fits with the view promoted by Vasubandhu.

4.1 | Weak Emergentism and Classical Reductionism

Perhaps the most prominent kind of emergentism in the latter half of the 20th century is framed against classical reductionism of the sort advocated by Ernst Nagel. Crudely put, classical reductionism maintains that all the laws of the higher level sciences (e.g., psychology, biology) can be restated in the vocabulary of physics. Suppose for instance that it is a genuine law of psychology that fear experiences facilitate retention in episodic memory. According to classical reductionism, the psychological categories here, *fear* and *episodic memory*, will map to natural junctures articulated with a physical vocabulary (e.g., in terms of electrons). The reductionist idea is that the explanatory value of the psychological law is retained in the restatement using the physical vocabulary.

Several philosophers argued against classical reductionism in favor of the autonomy of special sciences like psychology and biology (e.g., Fodor 1974; Hull 1972; Kincaid 1990; Kitcher 1984). These anti-reductionists hold that the categories of the higher level sciences afford causal explanations that are simply absent from any lower level statements. The laws of psychology provide explanations that will not be captured by any laws in physics.

Importantly, the categories of the special sciences—for example, *fear*, *gene*, *signal sequence*—are implicated in causal explanations that cannot be articulated by physics. Thus, in some sense, it's natural to say that fear, genes, and signal sequences are *real*.

However, at the same time, these philosophers maintain that their anti-reductionism is consistent with the idea that physics is causally closed. The causal closure thesis can be characterized as follows:

Causal Closure of the Physical Domain: all physical events are determined (or have their chances determined) entirely by prior physical events according to physical laws. (Papineau 1990, 67)

According to causal closure, physical laws are perfectly general, and so there can be no novel causal powers that reside at higher levels (Hendry 2006, 176). Thus, nothing happens at the physical level that requires appealing to the causal contributions of biological or psychological factors. Physics doesn't capture biological or psychological explanations, but it is completely authoritative over the behavior of electrons.

We can call the foregoing view “weak emergentism” (see O'Connor 2021). Although this view insists on the importance of higher-level categories for understanding the natural world, it does not deny that there is a complete description at the level of physics. The view is emergentist insofar as it holds that the categories of the higher level sciences will not map to categories of physics in ways that will preserve the explanations offered by the higher level laws. For instance, our understanding of the relationship between fear and memory will not be reflected in the laws of physics. Nonetheless, weak emergentists hold that fear and memory do not introduce any fundamentally new causal powers that change what happens at the physical level.

4.2 | Strong Emergentism

A more thoroughgoing rejection of reductionism can be found in strong emergentism. According to this view, emergents (entities or properties) introduce new causal powers that are nowhere to be found in their components (O'Connor 2021).

Strong emergence is an unpopular position in contemporary philosophy of science. This is largely because, unlike weak emergentism, strong emergence implies that the physical domain is not causally closed.¹⁹ According to strong emergence, some things that happen are caused by higher level properties (or entities) in ways that defy the predictions of a closed system of physical laws. The British Emergentists, from J.S. Mill (1843) to C.D. Broad (1923) developed this idea in some detail. In his well-known explication of this tradition, Brian McLaughlin says that the emergentists hold that certain “special kinds, in virtue of possessing certain types of minute internal structures, have the power to influence motion” (McLaughlin 1992, 51).²⁰ These special kinds are not made up of some different kind of substance. They are just aggregates of physical properties. Nonetheless, as McLaughlin puts it, “Emergentism maintains that certain types of aggregates generate fundamental forces” (ibid., 71). Aggregates thus affect “the movements of other aggregates or of individual particles in fundamental ways” (ibid., 79).

To take a contemporary example, the philosopher of chemistry Robin Hendry suggests that the effects of ethanol cannot be predicted by consulting only the underlying physical states (see, e.g., Hendry 2006). For instance, the effects of introducing ethanol into H₂O might not be predictable using purely physical (quantum mechanical) terms (Weisberg et al. 2019).

One way to see how strong emergentism conflicts with the causal closure of the physical is by considering a Laplacean demon. If the demon knew all the laws of physics and the locations of the physical entities, the causal closure of the physical entails that the subsequent position of every particle could be predicted. But the existence of strongly emergent phenomena would undercut this prediction. If, for instance, ethanol is a strongly emergent property or entity, then when ethanol is introduced to a glass of H₂O, the Laplacean demon will not be able to accurately predict what will happen.²¹

5 | Vasubandhu’s Emergentism in the AKBh

We’ve seen that Vasubandhu rejects mereological nihilism. Rather, he affirms the substantial reality of a variety of composites, including the sense faculties and sensory consciousness. In both cases, the arguments rely on the idea that causation is the criterion of reality. The eye faculty causes visual consciousness, hence the eye faculty exists; sensory episodes cause mental cognitions, hence sensory episodes exist. In the case of sensory episodes, we argued that Vasubandhu rejects reductionism. The

causal contributions of sensory episodes cannot be fully explained by adverting to the causal contributions of the constituent parts. That would mean that Vasubandhu is some kind of emergentist.²²

Of course, the modern distinction between strong and weak emergentism was not under explicit discussion for Vasubandhu. But is there reason to think he would eschew strong emergentism? There is no direct evidence for this. When Vasubandhu and Dignāga affirm that sensory episodes cause mental cognitions, they never suggest another causal path for mental cognitions. That is, they never suggest any kind of microlevel sufficient cause. Thus, the explicit discussions about the causal powers of sensory episodes provides no basis for a weak emergent interpretation. But perhaps there is some more general background principle that would justify such an interpretation.

As we have seen, many contemporary philosophers reject strong emergentism because it conflicts with the causal closure of physics. This would not be a reason for Vasubandhu. Like all Ābhidharmikas, Vasubandhu would reject the causal closure of the physical. This is because many of the real entities in his ontology are not physical. This includes some of the *dharmas* themselves. Although some *dharmas* are material (e.g., earth *dharmas*, water *dharmas*), many of them are not (e.g., sensation, attention, ignorance). In the AKBh, Vasubandhu says that material *dharmas* have mass and thus occupy a position in space, in contrast to psychological *dharmas* “not having a mass, not situated in a place” (Sangpo 2012, 292). Thus, Vasubandhu, like all other Ābhidharmikas, is ontologically pluralistic about the *dharmas*.

Since Vasubandhu rejects the causal closure of the physical, that principle cannot be a reason for him to reject strong emergence. However, there is an interesting parallel to the causal closure of the physical for the Abhidharma Buddhist. Following the model of the principle of causal closure of the physical, we might characterize a related Buddhist principle as follows:

| *Causal Closure of the dharmas.* All events are determined entirely by the *dharmas* according to cause and effect relations.

With this principle in hand, we can distinguish two kinds of Abhidharma Buddhist emergentisms. *Weak Abhidharma Buddhist emergentism* maintains that certain composites are causally efficacious, but accepts the causal closure of the *dharmas*. As with weak emergentism in the analytic tradition, the idea would be that certain composites play an essential role in causal explanation, but that ultimately every particular event could be predicted by knowledge of the *dharmas* themselves.

¹⁹ The assumption is that the fundamental kinds of entities invoked by physics are things like quarks and electrons. Of course, one could define “physics” to just include whatever fundamental kinds there are, so that if molecules and cells are fundamental kinds, then they would be part of physics. But the causal closure of the physical is meant to be substantive, explaining higher level phenomena by the properties of electrons (cf. McLaughlin 1992, 53).

²⁰ There is reason to think that British Empiricists were influenced by ancient Indian physicalists who put forward a variety of Emergentism or at the very least had heard of these views. An influential lecture delivered by Colebrooke in 1837 to the Royal Society in London discusses ancient Indian physical and emergentism about consciousness. Jonardon Ganeri, notes that “It seems likely that Mill, a person whose duties as a senior official of the East India Company included correspondence with Colebrooke, and who belonged with him to a circle of London literati based around the Royal Society, would have heard Colebrooke’s lecture or read it when it was published in 1837, the very period he was working on *A System of Logic*” (2011, 683).

²¹ The point here isn’t about indeterminism—there may well be perfectly deterministic predictions, but to generate them, we would need to look beyond physics. This point was made already by the emergentist Mill himself. He maintained that one might be able to make the requisite predictions provided one knew not just the physical laws but also the “heteropathic” laws, like the Laws of Life (Mill 1868, 410).

²² In his recent book, *Losing Ourselves*, Jay Garfield gives a kind of emergentism interpretation of Candrakīrti and other Madhyamaka Buddhists (2022, chap. 8).

Strong Abhidharma Buddhist emergentism, on the other hand, rejects the causal closure of the *dharmas*, and holds that certain composites introduce new causal properties into the world, such that knowledge of the *dharmas* would not be sufficient to predict future events.

Is there any reason to think that Abhidharma Buddhists embrace the causal closure of the *dharmas*? One way to explore this possibility is to consider an analog to Laplace's demon. If a creature knew everything about the *dharmas* at present will it be able to predict any future state of the world? It is part of the Buddhist tradition, carrying into Abhidharma philosophy, that the Buddha has some kind of omniscience. We find this registered in the AKBh itself, when Vasubandhu writes:

To the extent of my knowledge, I have summarily and roughly shown the effect of actions. The Buddhas alone know [completely] how the stream, when impregnated by actions of diverse nature and capability, evolves in such a way that, arriving at a particular stage, it produces such and such an effect. There is a stanza:

Action, the impregnations caused by action, the entry into the activity of this impregnation, the effect resulting from it, no one, except the Buddha, knows all this fully with certainty. (Sangpo 2012, 2579)

Vasubandhu is here granting that the Buddha will be able to predict what happens in the future; more precisely, the Buddha will be able to predict how the stream of aggregates constituting a person will evolve in the future on account of past and present karma (morally significant actions). But in order for this omniscience to be grounds for rejecting strong emergentism, it must be the case that the Buddha can make these predictions through knowledge of *dharmas* alone, without any recourse to the composites. The text certainly doesn't require this interpretation.

When we turn from Vasubandhu's articulation to the original statement of the Buddha's knowledge in the *Nikāyas*, we get no more reason to think that the Buddha is like a Laplacean demon. The canonical statement of Buddha's knowledge of the future runs as follows:

In this world—with its gods, Māras, and divinities, this population with its ascetics and brahmins, its gods and humans—whatever is seen, heard, thought, known, attained, sought, and explored by the mind: that I know.

In this world—with its gods, Māras, and Divinities, this population with its ascetics and brahmins, its gods and humans—whatever is seen, heard, thought, known, attained, sought, and explored by the mind: that I have insight into. That has been known by a

Realized One, but a Realized One is not subject to it.
... (Kālakārāmasutta [Anguttara Nikāya, 4.24])

Unlike Vasubandhu's articulation, this passage doesn't even mention the inferential process that the Buddha goes through to arrive at this knowledge. Here, it seems to be presented as a kind of insight. There's no particular reason to think that the Buddha's omniscience is like that of Laplace's demon, anticipating future events by computing over current *dharmas* and the cause-effect relations. Thus, the doctrine of the omniscience of the Buddha does not seem to provide clear reason to think that the Abhidharma Buddhist should reject strong emergentism.

Moreover, there is some reason to think that Vasubandhu might have been attracted to a version of strong emergentism. First, the thesis of strong emergentism was already explored in the Indian philosophical tradition that preceded Vasubandhu. The ancient Indian Materialists, the Cārvākas, defended a strong emergentist interpretation of the thesis that psychological states are emergent on physical states (Ganeri 2011).²³ According to Bṛhaspati, thinking is "due to" the four constitutive principles of matter, just as the power to intoxicate is due to the ingredients in the wine" (Ganeri 2011, 674). Using the work of the later Cārvāka philosopher and grammarian Bhaṭṭa Udbhaṭa, Ganeri argues that the ablative "due to" in Bṛhaspati can be interpreted in two ways. Thinking is an effect of the combination or transformation of material elements, but not just that. Thinking also functions as a cause with respect to the material elements. As Ganeri puts it, "Thinking is 'autonomous' (*svatantra*), and it 'assists' the elements.

The important notion of 'assistive' (*upakāraka*) causation supplements that of material causation (*upādāna*)" (2011, 689). Prabhācandra offers an analogy to illustrate the materialist position: A traveler starts a fire from sparks generated by rubbing sticks together, but will then use the flames to keep new material burning. Similarly, mental properties emerge through transformation from matter, and are thereafter jointly responsible along with matter for future mental states (1990 118,11–118,15).

We digressed into the materialist account to show that the ancient Indian philosophers were familiar with a version of strong emergentism. Vasubandhu is, of course, a dualist so is not exercised by the problem of the emergence of the mental. But he is concerned with whether composites have causal powers that are not also possessed by individual *dharmas* themselves. Thus, we think it remains a distinct possibility that Vasubandhu thinks that sensory episodes are strongly emergent.

6 | Conclusion

The *dharmas* are defined as the *ultimately real* entities in Abhidharma Buddhism. Since *dharmas* are atomic by nature, it follows that composites cannot be *ultimately real*. However, it's too quick to conclude from this that Abhidharma Buddhists maintain that composites do not really exist. For the discussions about ontology in Vasubandhu primarily draw on a different

²³ The Cārvāka sūtras were compiled by Bṛhaspati around or before the second century AD, well before Vasubandhu's time. Vasubandhu would have access to these materials for they were being discussed by later philosophers in the Nyāya and Buddhist traditions, for example, Jayanta and Kamalaśīla.

notion than that of the *ultimately real*. Instead, Vasubandhu examines whether various entities are *dravyasat*, which might be translated as *substantially real*. Vasubandhu goes to some lengths to argue that *persons* are not substantially real. He does this by drawing on the idea that an entity is real if and only if it has specifiable causes and effects. In the case of persons, he argues that all of the alleged effects of persons can be explained without appealing to the notion of a person.

Although Vasubandhu denies the substantial reality of the composites that we conceptualize as persons, there are other composites that he regards as enjoying substantial reality. According to Vasubandhu, both sensory faculties, like the eye, and sensory episodes, like seeing blue, are substantially real (*dravyasat*). Sensory faculties and sensory episodes have causal powers that eventuate in specified effects. This means that Vasubandhu is not a mereological nihilist, since he allows that some composite objects are substantially real. But the nature of these two kinds of entities are quite different. The eye is composed of eye atoms, and each of these atoms has a minute visual capacity to see; when the eye atoms are aggregated into an eye, these minute capacities combine to generate the full visual capacity. This means that Vasubandhu is a kind of reductionist about the causal powers of the eye, but it's a positive reductionism on which the eye has the causal powers that it does because it's made up of atoms that have the same causal powers but on a much smaller scale.

The situation is more interesting and complicated for sensory consciousness. The substantial reality of sensory consciousness is not disputed by Vasubandhu. But the positive reduction story that applies to the case of the eye cannot be applied to the case of seeing blue. This is because the sensory conscious state of seeing blue is composed of multiple different types of factors, and none of these factors possess even a minute capacity to see blue. It's only because the factors are included in the composite that the composite has the causal power to generate it specified affect (which, in this case, is a mental cognition like *that's blue*).

Moreover, given that Vasubandhu maintains that persons lack substantial reality in virtue of the fact that we can causally explain the putative effects of persons without appealing to persons, the implication is that we cannot do such a reductive explanation in the case of sensory consciousnesses. This suggests that Vasubandhu is an emergentist of some kind. But what kind of emergentist?

The contemporary distinction between weak and strong emergentism does not map perfectly to any distinction in Buddhism. This is because the contemporary distinction between weak and strong emergentism turns on the causal closure of the physical, and the Buddhist rejects the causal closure of the physical independently of any considerations about composites. Nonetheless, a similar distinction might be drawn within the tradition, where a weak Buddhist emergentism view would be consistent with the causal closure of the *dharmas*, such that even if the *dharmas* don't replace the explanatory value of the appeal to sensory consciousness, knowledge of the *dharmas* would suffice to predict everything that happens. Alternatively, the Buddhist emergentist might reject the causal closure of the *dharmas* and maintain that genuinely novel causal powers emerge with composite sensory consciousnesses. We stressed that there is little

evidence from the texts that Vasubandhu is only committed to the weaker form of emergence, but we acknowledge that it remains an open and interesting question whether some Ābhidharmikas are actually strong emergentists.

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References

- Block, N. 2023. *The Border Between Seeing and Thinking*. Oxford University Press.
- Brigandt, I., and A. Love. 2023. "Reductionism in Biology." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta and U. Nodelman. Stanford University Press. <https://plato.stanford.edu/archives/sum2023/entries/reduction-biology/>.
- Dhammajoti, K. L. 2007. *Sarvāstivāda Abhidharma*. 4th ed. Centre of Buddhist Studies, University of Hong Kong.
- Dhammajoti, K. L. 2015. *Sarvāstivāda Abhidharma*. 5th ed. Centre for Buddhist Studies, University of Hong Kong.
- Duckworth, D., G. Jay E. David, J. Powers, Y. Thabkhas, and S. Thakchöe. 2016. *Dignāga's Investigation of the Percept: A Philosophical Legacy in India and Tibet*. Oxford University Press.
- Fodor, J. A. 1974. "Special Sciences (or: The Disunity of Science as a Working Hypothesis)." *Synthese* 28, no. 2: 97–115.
- Ganeri, J. 2011. "Emergentisms, Ancient and Modern." *Mind* 120, no. 479: 671–703.
- Ganeri, J. 2012a. "Buddhist No-Self: An Analysis and Critique." In *Hindu and Buddhist Ideas in Dialogue: Self and No-Self*, edited by I. Kuznetsova, J. Ganeri, and R.-P. Chakravarthi, 63–76. Ashgate.
- Ganeri, J. 2012b. *The Self: Naturalism, Consciousness, and the First-Person Stance*. Oxford University Press.
- Ganeri, J. 2017. *Attention, Not Self*. Oxford University Press.
- Garfield, J. 2022. *Losing Ourselves: Learning to Live Without a Self*. Princeton University Press.
- Gethin, R. Forthcoming. *Abhidharma Mapping the Buddha's Mind: Indian Buddhist Thought in the Theravāda, Sarvāstivāda, and Yogācāra*. Oxford University Press.
- Gold, J. C. 2022. "Vasubandhu." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta and U. Nodelman. Stanford University Press. <https://plato.stanford.edu/archives/win2022/entries/vasubandhu/>.
- Hanner, O. 2021. "Abhidharmakośabhāṣya (Treasury of Metaphysics with Self-Commentary)." In *Oxford Research Encyclopedia of Religion*, edited by J. Barton. Oxford Academic. <https://doi.org/10.1093/acrefore/9780199340378.013.718>.
- Hendry, R. F. 2006. "Is There Downward Causation in Chemistry?" In *Philosophy of Chemistry: Synthesis of a New Discipline*, edited by D. Baird, E. Scerri, and L. McIntyre, 173–189. Springer.
- Hull, D. 1972. "Reduction in Genetics—Biology or Philosophy?" *Philosophy of Science* 39, no. 4: 491–499.
- Karunadasa, Y. 2010. *The Theravāda Abhidhamma: Its Inquiry Into the Nature of Conditioned Reality*. Centre of Buddhist Studies, The University of Hong Kong.
- Kim, J. 2011. *Philosophy of Mind*. Routledge.

- Kincaid, H. 1990. "Molecular Biology and the Unity of Science." *Philosophy of Science* 57: 575–593.
- Kitcher, P. 1984. "1953 and All That. A Tale of Two Sciences." *Philosophical Review* 93, no. 3: 335–373.
- Lusthaus, D. 2010. "The Two Truths (Saṃvṛti-satya and Paramārthasatya) in Early Yogācāra." *Journal of Buddhist Studies* 7: 101–152.
- McLaughlin, B. 1992. "The Rise and Fall of British Emergentism." In *Emergence or Reduction? Essays on the Prospects for Non-Reductive Physicalism*, edited by A. Beckermann, H. Flohr, and J. Kim, 49–93. Walter de Gruyter.
- Mill, J. 1868. *A System of Logic*. 7th ed. Longmans, Green, Reader, and Dyer.
- O'Connor, T. 2021. "Emergent Properties." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta. Stanford University Press. <https://plato.stanford.edu/archives/win2021/entries/properties-emergent/>.
- Papineau, D. 1990. "Why Supervenience?" *Analysis* 50, no. 2: 66–71.
- Pruden, L. M. 1988–1990. *Abhidharmakosabhāsyam of Vasubandhu*. Volumes I–IV. Asian Humanities Press.
- Rea, M. C. 1998. "In Defense of Mereological Universalism." *Philosophy and Phenomenological Research* 58, no. 2: 347–360.
- Ronkin, N. 2022. "Abhidharma." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta. Stanford University Press. <https://plato.stanford.edu/archives/sum2022/entries/abhidharma/>.
- Sangpo, G. L. 2012. *Abhidharmakośa-Bhāṣya of Vasubandhu: The Treasury of the Abhidharma and Its (Auto) Commentary*. Motilal Banarsidass.
- Sharf, R. H. 2018. "Knowing Blue: Early Buddhist Accounts of Non-Conceptual Sense." *Philosophy East and West* 68, no. 3: 826–870.
- Siderits, M. 2007. *Buddhism as Philosophy: An Introduction*. Hackett Publishing Company, Inc.
- Siderits, M. 2011. "Buddhas as Zombies: A Buddhist Reduction of Subjectivity." In *Self, No Self? Perspectives From Analytics, Phenomenological, and Indian Traditions*, edited by M. Siderits, E. Thompson, and D. Zahavi, 308–332. Oxford University Press.
- Siderits, M. 2014. "Causation, 'Humean' Causation and Emptiness." *Journal of Indian Philosophy* 42, no. 4: 433–449.
- Siderits, M. 2015. *Personal Identity and Buddhist Philosophy: Empty Persons*. 2nd ed. Routledge.
- Siderits, M. 2016. *Personal Identity and Buddhist Philosophy: Empty Persons*. 2nd ed. Routledge.
- Siderits, M. 2025. *Buddhist Physicalism?: Non-Self Metaphysics and Phenomenal Consciousness*. Oxford University Press.
- Thakchoe, S. 2025. "The Theory of Two Truths in India." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta and U. Nodelman. Stanford University Press. <https://plato.stanford.edu/archives/spr2025/entries/twotruths-india/>.
- The Cowherds. 2011. *Moonshadows: Conventional Truth in Buddhist Philosophy*. Oxford University Press.
- Weisberg, M., P. Needham, and R. Hendry. 2019. "Philosophy of Chemistry." In *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta. Stanford University Press. <https://plato.stanford.edu/archives/spr2019/entries/chemistry/>.
- Williams, P. M. 1981. "On the Abhidharma Ontology." *Journal of Indian Philosophy* 9, no. 3: 227–257.