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„Das Anti-Atomistische Argument in den Zwanzig
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Argument Against Atomism in the Twenty Verses”)

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Vasubandhu's Argument Against Atomism in the Twenty Verses

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To my daughter Miriam, for her kindness and
understanding.

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1 Introduction

The world is given but once.
Nothing is reflected. The original
and mirror-image are identical.
The world extended in space
and time is but our
representation.

(Erwin Schrödinger)

THIS PAPER WILL conduct a critical investigation of the famous argument against atomism first made by the 4th century CE Indian Buddhist philosopher Vasubandhu in his idealist treatise *Viṃśatikā Vijñaptimātratāsiddhi* (*The Twenty Verses of Mind-Only*).¹ Although the present exposition will be more conceptual than historical in focus, it will first unfold the Abhidharmic Buddhist precursors of the Mind-Only epistemology. With the necessary background in place, I shall then attempt a rational reconstruction of the substance of Vasubandhu’s argument against atomism, rendering it intelligible to the modern reader by transposing it into contemporary philosophical idiom. Finally, I will employ the analysis of atomism and the external world in the Mind-Only school as a point of departure from which to further probe closely related concerns of Buddhist transcendental philosophy having to do with the nature of empirical knowledge, the power of skeptical argument, and the status of apperception.

Before we begin, a brief clarification—the sense of the term *atom* as used throughout this paper should be carefully distinguished from the so-called “atom” of the modern physical sciences. Unless otherwise noted, I will be

¹Cited henceforth as *Viṃśatikā*. Roman numerals in bold (e.g. “4”) are citations of verses (*kārikās*) from the *Viṃśatikā* and Latin numerals in bold (e.g. “XII”) are citations of sections from Vasubandhu’s auto-commentary, both as given in the translation of CARMEN DRAGONETTI and FERNANDO TOLA, *Being as Consciousness*. New Delhi: Motilal Banarsidass, 2004, pp. 134–153.

using the term *atom* to mean a *mereological* atom, or indivisible, concrete particular functioning as an elementary building block of phenomenal experience.

The theory that the world is constituted by such mereological atoms is commonly believed to be the exclusive province of Western philosophical tradition, beginning with the Greek atomists, but is now known to have evolved, more or less independently from the West, within classical Indian philosophy, and last but not least, among the Buddhist scholastics of the Abhidharma sects.

In the Buddhist tradition, Vasubandhu occupies the unique position of being counted as one of Abhidharma's greatest proponents as well as one of its foremost critics. The *Viṃśatikā* is a Mahāyāna text and belongs to the later, critical phase of his thought.

1.1 About Vasubandhu

Vasubandhu tends to be a somewhat enigmatic figure even to those familiar with East Asian philosophy or the particulars of classical Indian thought. Before going into more detail on the *Viṃśatikā*'s philosophical ideas, I would like to give some brief background on Vasubandhu's biography and other treatises (*śāstras*).

The extant biographies of Vasubandhu contain many contradictions and legendary elements. Lamotte has noted the difficulty of coming to any solid conclusions about Vasubandhu as a person: "Vasubandhu a trop vécu, trop pensé, trop écrit; et avant de se prononcer sur sa personnalité, il faudrait avoir lu, critiqué et comparé toutes ses oeuvres."²

Vasubandhu was born around the year 316 CE in Puruṣapura,³ at the time the seventh most populous city in the world, located in what are now the North–West Territories of Pakistan. The city of Puruṣapura had become a

²LAMOTTE, cited in MAREK MEJOR, *Vasubandhu's Abhidharmakośa and the Commentaries preserved in the Tanjur*. Franz Steiner Verlag, 1991, pp. 6–7.

³Very little about Vasubandhu's biography can be considered definitive. Sarao (see K. T. S. SARAQ, *Vasubandhu*. in: *Internet Encyclopedia of Philosophy*. 2006 (URL: <http://www.iep.utm.edu/>) – accessed on April 12, 2008) gives various other dates for Vasubandhu's birth, ranging from 270–420 CE.

1.1 About Vasubandhu

regional capital of the empire of Gāndhāra under the Kushan king Kaniṣka I, who reigned from approximately 127 CE, and who is famous for having erected a giant stupa, perhaps the tallest building in the world of that time, to house the Buddha's relics. Although the Empire of Gāndhāra was already past its heyday by the time Vasubandhu was born, Puruṣapura was still a great center of Buddhist learning. Anacker relates that it was the birthplace of the scholars Dharmasrī and the Bhadhanta Dharmatrāta, both of the Sarvāstivāda school of Buddhism, and that it was known as the seat of the Paścatīyas ("Western masters") of Abhidharma.⁴

Vasubandhu received his initial education in the Abhidharma of the Sarvāstivāda sect. The sources are in some disagreement as to who his teachers were—according to Paramārtha, Vasubandhu's 6th century Chinese translator, Vasubandhu's teacher was a scholar by the name of Buddhāmītra,⁵ whereas other sources say that he studied under the Sautrāntika teacher Manoratha and never mention Buddhāmītra. The medieval Tibetan doxographer Bu-ston relates that he was a student of the master Saṅghabhadra, a staunch defender of neo-orthodox Kashmiri Vaibhāṣika scholasticism. Whether or not Saṅghabhadra actually was his teacher, Vasubandhu was firmly grounded in the Abhidharmic doctrines of his era, though tending already in the early phase of his thought towards a Sautrāntika perspective.

For this reason, the two scholars came to develop an intense rivalry and were often pitted against each other in debate.⁶ Later in his career, however, Vasubandhu had largely lost his zest for competitive debating—it is reported that he brushed off a challenge to debate Saṅghabhadra with a caustic witticism showing that there was no friendship between the two: "Though the lion retires far off before the pig, nonetheless the wise will know which of the two is best in strength."⁷

⁴STEFAN ANACKER, *Seven Works of Vasubandhu: The Buddhist Psychological Doctor*. New Delhi: Motilal Banarsidass, 1998, p. 11–12.

⁵SARAO, *ibid.*

⁶Viz. Anacker's discussion of whether or not Saṅghabhadra was really his teacher (ANACKER, *ibid.*, pp. 15–16). However, the Tibetan hagiographies of Vasubandhu are in agreement that he was.

⁷ANACKER, *ibid.*, p. 23.

1.1 About Vasubandhu

Vasubandhu's ironic eulogy for Saṅghabhadra shows that he felt him to have been a sophistic debater lacking in the profound insight that he valued: "Saṅghabhadra was a clever and ingenious scholar. His intellectual powers were not deep, but his dialectics were always to the point."⁸

This remark, however, is more than merely a matter of personal animosity. It brings to the fore the ideological divide between the non-Mahāyāna and Mahāyāna inflections of philosophical-religious thought. For Saṅghabhadra, dialectic is apologetic, whereas Vasubandhu employs it in a mainly anti-apologetic rôle. Against Saṅghabhadra's orthodox dogmatism, Vasubandhu is a figure of transition and a creatively deconstructive thinker.

The early works of Vasubandhu are commonly classified as belonging to the Sautrāntika school, e.g. the *Abhidharmakośa* (*Treasury of Higher Doctrine*) and its auto-commentary.⁹ The later Vasubandhu is however considered to be a Mahāyānist and an adherent of the idealist Mind-Only school. The Mind-Only school is variously referred to in the literature by the Sanskrit terms Yogācāra, Cittamātra and Vijñānavāda. I am assuming for the sake of simplicity that these names can be used interchangeably, but some commentators assert that the terms designate philosophically distinct affiliations of Mahāyāna thought, e.g. NAGAO, who uses Yogācāra as a term for the beginnings and Vijñānavāda for the later evolution of the school.¹⁰

Some of the important Mahāyāna *śāstras* of Vasubandhu's later phase are the *Karmasiddhiprakaraṇa* (*Discussion for the Demonstration of Action*), the *Viṃśatikā-kārikā* (*Twenty Verses of Mind-Only*) and its auto-commentary, the *Trimśikā* (*Thirty Verses*), the *Madhyāntavibhāṅgabhāṣya* (*Commentary on the Separation of the Middle from Extremes*) and the *Trisvabhāvanirdeśa* (*Treatise on the Three Natures*). However, even his later Mahāyāna works evince many Abhidharmic themes.

It has been conjectured (e.g. by FRAUWALLNER) that Vasubandhu is a composite figure. The issue of the identity of Vasubandhu remains to this day a major topic of controversy, but for the theses being argued here, it

⁸ANACKER, *ibid.*

⁹Also cited henceforth as the *Kośa*.

¹⁰GADJIN M. NAGAO; LESLIE KAWAMURA and GADJIN M. NAGAO, editors, *Mādhyamika and Yogācāra: A Study of Mahāyāna Philosophies*. SUNY Series in Buddhist Studies, 1991, p. 187.

will be sufficient if the Vasubandhus of the *Kośa* and the *Viṃśatikā* are the same author. This circumstance is fortunately not under dispute—according to Frauwallner’s distribution, both works belong to “Vasubandhu the Younger.”¹¹

1.2 The *Viṃśatikā* in a Nutshell

As it will not be possible to comprehensively examine all of the *Viṃśatikā*’s arguments in their minute details, I will only give a lightning tour of its key points and excerpt the epistemological themes of Vasubandhu’s thought in this treatise. The *Viṃśatikā* is a *locus classicus* of the Mind–Only school, and is written in the style of a debate, presenting the idealist thesis of vijñāpti-mātra and defending it against various interlocutors who argue realist views: “The goal of *Viṃśatikā* is to repudiate the view that there is an external world corresponding to the images of objects.”¹²

Vasubandhu indicates in **I** that he uses the nomenclature *citta*, *manas*, *viñāna* and *viñāpti* interchangeably. The translations of these terms are respectively ‘mind,’ ‘cognition,’ ‘awareness,’ and ‘percept.’ Given that other Indian schools of philosophy do distinguish some of these terms quite sharply, Vasubandhu is making a far from trivial move in simply equating their meanings. Doesn’t it make a considerable difference as to whether one interprets the doctrine of Mind–Only as mentalism (as the sole existence of consciousness)¹³, or as positivism (all knowledge is based on sense experience)? Perhaps not. The treatment of these terms as exact synonyms implies far-reaching consequences for the Mind–Only understanding of the nature of experience and function of consciousness. The fact that Vasubandhu amalgamates so many different terms indicates that mentalistic vocabulary is probably an implicit locus of philosophical synthesis.

The *Viṃśatikā* begins in **1** with a succinct statement of the fundamental principle that everything is perception–only, and that the appearance of the non–existent external referent (*bāhyārtha*) of perception can be compared to

¹¹MEJOR, *ibid.*, p. 10.

¹²BINA GUPTA, *Cit Consciousness*. Boston: Oxford University Press, 2003, p. 72.

¹³DRAGONETTI and TOLA, *ibid.*, p. 94.

the optical illusions seen by the *taimirikas*, i.e. those persons who perceive illusory hairs or moons in their field of vision owing to a medical disorder of the eyes—a famous statement that epitomizes the Mind–Only idealist view.¹⁴ Wood characterizes this view essentially as a brand of idealist phenomenalism—the epistemologically naïve, common–sense apprehension of an external world is (on that particular count) wildly inaccurate, because people actually only perceive their own percepts.¹⁵ They are familiar only with the phenomenal workings within their own minds.

Several caveats before we proceed with the discussion—in contemporary scholarship, the primacy of the idealist interpretation has been at times hotly contested, e.g. by LUSTHAUS, WAYMAN, ANACKER and KOCHUMUTTOM. These scholars advance revisionist readings¹⁶ that in recent years have gained an increasing amount of currency. The revisionist interpretations generally do *not* take Vasubandhu to deny external objects,¹⁷ thereby placing themselves in opposition to the “traditional interpretation” advocated by many Western scholars such as WOOD, as well as by medieval Tibetan doxographical accounts of the Cittamātra system of tenets. I will have more to say about the topic of these variant interpretations later on in this paper, but for the time being, I will adopt the frame of traditional interpretation as so not to prematurely introduce unnecessary complexities into the discussion. Interpretive frame–shifts will be less confusing once the fundamentals are in place.

In verse 2, Vasubandhu immediately encounters the first objection of the realist—if they are mere mental creations, how can objects be determinate and definite as to time and place? After all, some of the most salient characteristics of physical objects are their apparent spatiotemporal determinacy, stability and continuity (*niyama*), their actuality or causally efficacious functioning (*kṛtakriyā*), and their public perceptibility, i.e. the indetermination (*aniyama*)¹⁸ of mental continua with regard to public percepts. External

¹⁴See DRAGONETTI and TOLA, *ibid.*, p. 78.

¹⁵THOMAS E. WOOD, *Mind Only: A Philosophical and Doctrinal Analysis of the Vijñānavāda*. Motilal Banarsidass, 1994, p. 93.

¹⁶Viz. section 3.1.1, p. 73.

¹⁷E.g. ANACKER, *ibid.*, p. 159.

¹⁸Wood’s analysis of this point is somewhat muddled, cf. WOOD, *Mind Only*, *ibid.*, p. 165.

objects, argues the realist, are not perceived in an arbitrary fashion because their behavior conforms to certain objective regularities and constraints—they do not shift about unpredictably, vanish and reappear at random, or gratuitously alter into completely different objects.

Vasubandhu does not deny that the observed world evinces such regularities. He merely questions whether they necessarily imply the metaphysical¹⁹ hypothesis of an objectively existing external world, especially since this hypothesis could be held to imply the anathematic existence of acausal objects. He agrees with the requirement that experience be subject to causal constraint, but with an internalist twist—that the conditioning factors are to be found in the mind alone, and not in an external world.

In accordance with Buddhism’s generally Humean notion of causality, the phenomenal laws governing the behavior of the supposedly external objects are no more and no less strictly necessary and universal than the inner laws of own subjectivity. Their lawlike behaviour can be accounted for without any appeal to a transcendently objective realm. Vasubandhu claims that the dream hypothesis, despite seeming counterintuitive at first blush, ultimately offers a better explanation for the regularities in our experience than metaphysical realism.

Verse 3 introduces Vasubandhu’s famous analogy of perception “as in dreams” (*svapnavat*). Consciousness projects percepts as external to the mind. The mere experience of objectivity therefore does not suffice as proof that the objects of perception exist independently.²⁰ In the special case of dreams, even a hard-boiled physical realist will have no difficulty in saying that phenomena are perceived in absence of contact with an external world. But Vasubandhu’s thesis is more than merely an example of argument from illusion—he proposes that this inside-out mode of perception, far from being

¹⁹We follow Essler’s convention of distinguishing Kant’s two senses of the word “metaphysics”—*métaphysics* as epistemological reflection on the constitution and limits of experience, and *metaphysics*, or theorizing about trans-experiential realities. See e.g. WILHELM K. ESSLER; GERHARD PREYER, editor, *Unser die Welt*. Humanities Online, 2001 (URL: http://publikationen.ub.uni-frankfurt.de/volltexte/2007/4545/pdf/Essler_UDW_ccl.pdf) – accessed on June 26, 2008, p. 119.

²⁰A. K. CHATTERJEE, *The Yogācāra Idealism*. Motilal Banarsidass, 1975, p. 61.

an exceptional case, is in fact the general rule. Dreaming is the paradigmatic example for perception.

As for the question of spatial and temporal location, Vasubandhu offhandedly dismisses the realist objection, pointing out that the spatiotemporal determination experienced in dreams is perfectly sufficient to account for the perception of an apparently external world. In attributing the structure of experience to purely internal substrates, and absorbing the transcendental object into the mind, Vasubandhu makes objectivity wholly parasitic upon subjectivity.²¹ In this respect, he can be rightly said to veer sharply towards idealism.

The indetermination of mind-streams (non-exclusiveness of percepts), Vasubandhu argues, is just as in the case of hungry ghosts (*pretas*), who all see rivers of water as pus due to their identical dispositional bias of perception.²² That sentient beings perceive a common world proves only that their karmic propensities have the same common denominator. As an example, Vasubandhu mentions beings whose negative karmic propensities will eventually come to fruition as a rebirth in a mentally projected infernal realm. Thus, Vasubandhu argues that his *viññāpti-mātra* thesis is perfectly in accordance with the accepted Buddhist moral theory of *karma* (which we might characterize in the modern terminology of philosophical ethics as having a consequentialist orientation).

To Vasubandhu, causality and lawlike regularities, being merely empirical regulatives and therefore wholly internal to experience, do not in and of themselves suffice to offer conclusive proof of objectivity. In 4, he compares the efficacy of action (*arthakriyā*)²³ to nocturnal emission of semen. We might unpack this rather risqué example as trying to illustrate how even wholly imaginary actions (e.g. having sexual intercourse in a dream) can nonetheless produce pragmatic effects (the emission of semen).²⁴

²¹See J. N. FINDLAY, *Kant and the Transcendental Object*. Clarendon Press, 1981, p. 149.

²²WOOD, *Mind Only*, *ibid.*, p. 97.

²³The term actually means “accordance with the object,” see BIMAL K. MATILAL, *Perception: An Essay on Classical Indian Theories of Knowledge*. Oxford University Press, 1986, p. 370.

²⁴DRAGONETTI and TOLA, *ibid.*, p. 82.

Vasubandhu expands upon this example in his ingenious hell-guardian argument in **5**, where he urges that the demonic guardians (*naraka-pālas*) who torture their victims are nonexistent because they themselves are not being tortured. It is an axiomatic assumption of early medieval Buddhist cosmology that hell-dwellers were reborn in a hellish realm in order to experience infernal sufferings as retributions for their past actions. But since the *naraka-pālas* inflict suffering upon others rather than experience it themselves, it follows that it is impossible for their true manner of existence to accord with their appearance of being real, sentient beings. Vasubandhu thus concludes that hell and its guardians are mental projections, suggesting that the doctrine of karma logically implies his idealist thesis.²⁵

Moreover, if hell, the worst logically conceivable case of suffering, is inadmissible as a Moorean proof for the metaphysically objective existence of hell, then the same applies *a fortiori* to all other possible states of experience. Vasubandhu even coöpts such realist proofs as support for his own thesis. Hell, Vasubandhu would diagnose, is nothing other than the painful symptom of a very severe case of Johnsonian stone-kicking.²⁶

In response to Mach's sardonic *aperçu*²⁷ about the Pyrrhonist in Molière's *Mariage forcé* who is beaten and does not go on saying "Il me semble que vous me battez," but takes his beating as really received, Vasubandhu might answer that his case against the metaphysical existence of an external world is predicated on a specifically *transcendental* sense of "seems talk." In modern terms, we might construe Vasubandhu's position of transcendental illusionism as advocating an internalist account of knowledge similar to the analysis of Cohen.²⁸ The hell-dweller argument tries to show that if the principle of ethical consequence is to be preserved, then suffering (such as receiving a beating)—and everything else that masquerades as the external

²⁵WOOD, *Mind Only*, *ibid.*, p. 66.

²⁶Samuel Johnson famously objected to Berkeley's idealism by kicking a stone and shouting "I refute it thus!"

²⁷ERNST MACH, *Die Analyse der Empfindungen und das Verhältnis des Physischen zum Psychischen*. Edition Classic Verlag Dr. Müller, 2006, p. 30.

²⁸See STEWART COHEN, *Justification and Truth*. *Philosophical Studies*, 46 1984. However, it has been argued (unconvincingly) that no Indian philosopher held any form of internalism (see MARK SIDERITS, *Replies to Garfield, Taber and Arnold*. *APA Newsletters* 6 2006:1).

world—must be a quasi-oneiric manifestation of mental causative potentials (*vāsanās*). In a dream, the dreamed tortures and terrors are experienced as very real indeed, but upon awakening, they evaporate. The dreamer recognizes that all of his experiences were, in truth, no more than projective appearances of his mind's inherent muddle.

Next, Vasubandhu gives an argument in **8** against the existence of two types of sense-base (*āyatana*)—sensory faculties and their external sensory fields—asserting that external sensory fields (visibles, tangibles, audibles, etc.) do not actually exist. Vasubandhu justifies this claim by means of a scriptural hermeneutic. He maintains that the statements regarding the existence of the sensory fields have a merely provisional meaning as metaphorical figures of speech set forth with the hidden (*neyārtha*) intention of accommodating realists to the Buddhadharma.

Taught in one way, Vasubandhu argues in **10**, the doctrine of the Buddha leads to the lower understanding of the insubstantiality of the personality (*pudgala-nairātmya*) and taught in its deeper meaning as Mind-Only, it leads to the higher understanding of the insubstantiality of the elements of experience (*dharma-nairātmya*). But aside from this hermeneutic justification, he also gives a rational line of reasoning—that the existence of external sensory fields implies metaphysical realism, which seems an acceptable enough theory at first glance, but is revealed upon closer examination to be unreasonable.

Vasubandhu then proceeds in **11–15** to give an inventive *reductio* demonstrating why the various forms of metaphysical realism fail to be a coherent alternative to his dream hypothesis of perception. The transcendental objects postulated by realism do not exist because it is impossible for them to be composed of atoms. Since Vasubandhu crystallizes the dispute over transcendental objectivity (i.e. the existence of a mind-independent external world) around the issue of atomism, he devotes a sizeable portion of the *Viṃśatikā* to a demonstration that the metaphysical existence of atoms is unproven—a treatment which is akin to the Kantian analysis of the issue, as we will explore in detail in Chapter 3. I shall argue that, unlike Kant, Vasubandhu also rejects the necessity of noumenal simples to the constitution of phenomenal reality. Kant's deep suspicion about the legitimacy of

such a philosophical move is due to his correct intuition that it would signify a final departure from realism. But this is of course precisely the paradigm shift that Vasubandhu wishes to urge.

In **16**, Vasubandhu refutes the causal theory of perception and then answers to a number of further realist objections against the dream theory of experience, having to do with how recollection of objects or differences in the dream and waking state can be accounted for. Just as those who are dreaming do not realize the inexistence of the objects in their dreams, he argues in **XXXIII**, those who lack world-transcending gnosis fail to realize insubstantiality.

In a similar vein, Essler remarks that just as people rarely realize they are dreaming while they are having a dream, they are likewise unaware of the extent to which they epistemologically constitute their world when awake.²⁹ Such is the nature of dreaming, Mach ironizes—while in a dream, one may reflect about the dream and recognize it as such by its oddities, but one immediately puts one’s mind to rest about them.³⁰ Vasubandhu’s comparison of this constitutional creativity of the mind to dream consciousness is suggestive of the language of the *Māṇḍūkya Upaniṣad*.³¹ It strongly hints at the transformative aim of the text—if it is really true that our world is like a dream, then we can hope to awaken from it.

Since his realist interlocutor in **18** is also Buddhist, Vasubandhu is in the position of using scriptural authority to illustrate his idea that minds do not require the intermediation of a mind-independent external world to influence each other. In the Mind-Only paradigm, the existence of a telepathic influence directly connecting the different mind-streams is not only invoked in order to absolve Mind-Only of solipsism or to explain anomalous cases, but is employed as a central explanatory mechanism for ordinary perception.³²

²⁹WILHELM K. ESSLER and ULRICH MAMAT, *Die Philosophie des Buddhismus*. Wissenschaftliche Buchgesellschaft, 2005, p. 210.

³⁰MACH, *ibid.*, p. 207.

³¹GUPTA, *ibid.*, p. 34.

³²WOOD, *Mind Only*, *ibid.*, pp. 171-172.

1.3 Rationale and Method of the Investigation

In realism, common perceptions are accounted for by the external object, which causally determines the sensory core of perception.³³ In Mind–Only idealism, the external object is merely a common locus item.³⁴

In the intriguing argument of the forest–dwelling seers in **20**, Vasubandhu attempts to rebut the charge of solipsism by proposing that mental states and perceptions exercise a direct causal influence on other consciousnesses, as demonstrated by a scriptural example involving the extraordinary mental powers of certain forest hermits. This causal influence places the various minds in immediate mind–to–mind contact (*paras-pataḥ*) with each other. Despite that we are unaware of this contact, Vasubandhu suggests, it is the means by which we intersubjectively constitute a *folie simultanée* that then appears to us as the objective world.³⁵

In the penultimate verse **21**, Vasubandhu directly addresses the other minds problem. Not only do we not truly know other minds, we do not even know our own. Essentially, Vasubandhu frames the other minds problem as a special case of the more general problem of the epistemic status of the transcendental subject, for which he offers a deeply skeptical response.³⁶

1.3 Rationale and Method of the Investigation

Why single out Vasubandhu’s argument against atomism for further examination? The *Vimśatikā*’s argument against atomism demarcates a crucial juncture both in Vasubandhu’s own thought as well as in Northern Buddhist thought in general—the two non–Mahāyāna schools of Northern Buddhism (the Sarvāstivāda/Vaibhāṣika and the Sautrāntika) commonly accept the existence of atoms, whereas the two Mahāyāna schools, the Yogācāra/Citta-

³³MATILAL, Perception, *ibid.*, p. 230.

³⁴ALEXANDER BERZIN, Basic Features of the Gelug-Chittamatra System. (URL: http://www.berzinarchives.com/sutra/sutra_level_5/basic_feat_gelug_chittamatra_1.html) – accessed on April 11, 2008.

³⁵Vasubandhu’s *paras-pataḥ* may be compared to Husserl’s notion of the “harmony of the monads,” or intersubjective correlation of subjective constitution systems. Husserl regards objectivity as the ideal correlate of intersubjective experience (see EDMUND HUSSERL; ELISABETH STRÖKER, editor, Cartesianische Meditationen: Eine Einleitung in die Phänomenologie. Felix Meiner Verlag, 1995, pp. 109–111).

³⁶DRAGONETTI and TOLA, *ibid.*, p. 121.

1.3 Rationale and Method of the Investigation

mātra (Yogic Practice/Mind–Only) and the Mādhyamika (Middle Way) do not. Also, in using Vasubandhu’s argument as a mirror in which to study the epistemological interrelation of mind and object, I will offer some contemporary reflections on two perennial themes of philosophy—empiricism and Cartesian external world skepticism.

However, this effort runs into certain initial difficulties, concerning not so much the analysis of Vasubandhu’s anti–atomist argument in and of itself—which will prove fairly straightforward—but rather, having to do with the hermeneutic challenges of properly assessing its significance against the broader backdrop of classical Buddhist thought and analyzing it in the light of contemporary epistemology.

On the one hand, any attempt to draw out the meaning of Vasubandhu’s argument must take account of the unique historical context and the distinctive philosophical moves generated by the Buddhist program. On the other hand, an exegesis from a contemporary standpoint will necessarily be grounded, at least in part, within the matrix of the Occidental philosophical traditions, which *prima facie* seems very far removed from the worldview of Indian Buddhism around the 4th century CE.

Herbert V. Guenther has often remarked on the difficulty of applying Western philosophical categories to Eastern patterns of thought, warning that an overly facile characterization in Western terms runs the risk of blurring or even entirely misconstruing the distinguishing features of Buddhism.³⁷

Extrapolating grand trends and tendencies is tricky business in any philosophical context, and especially so when it comes to the history of Buddhist thought. One must be careful not to cavalierly colonize the texts of the Other. But a comparative analysis unavoidably requires a certain degree of creative extrapolation and generalization.

Clearly, in the worst case, such an approach may reveal little more than the expositor’s hermeneutic bias. Yet it would be equally naïve, in a philosophical sense, to desist from bringing in current vocabulary and concerns in an attempt to eliminate Western perspective from the equation.

³⁷See HERBERT V. GUENTHER, *Mentalism and Beyond in Buddhist Philosophy*. in: HERBERT V. GUENTHER, editor, *Tibetan Buddhism in Western Perspective: Collected Articles of Herbert V. Guenther*. Shambhala Publications, 1977, pp. 162–163.

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Although it would be possible to restrict oneself to a purely text–immanent interpretation of Vasubandhu’s *Viṃśatikā*, such a treatment of this type would be of little more than historiographical or antiquarian relevance. Indeed, it would be rather difficult to conceive of a philosophically relevant study of Vasubandhu’s position on atomism that does not attempt to line him up with Western thinkers and commensurate his ideas to familiar Western categories.

One challenge is therefore to employ the inescapable perspectival slant of a contemporary interpretation to good effect in bringing Vasubandhu’s arguments to bear upon topics of interest to present–day philosophers. As B. K. Matilal notes, contemporary writing on classical Indian philosophy must somehow strike a balance between the reconstruction of historical views and the critical examination of similar modern views.³⁸ Some knowledge of historical development will prove indispensable as a foundation for abstracting the underlying conceptual structure of Vasubandhu’s line of argument and reconstructing its main epistemological themes and issues. The project of philosophical re-synthesis in the guise of comparative analysis requires that the discussion fluidly shift back and forth between ideo–historical exploration and rational reconstruction.

In particular, I hope to identify some of the central philosophical features of Buddhist thought by casting the *Viṃśatikā* in an empiricist mold, juxtaposing Buddhist thinkers such as Gautama Śākyamuni and Vasubandhu with Kant as well with Avenarius and Mach, Kant’s 19th century empiriocriticist successors. The main reason why I do not elaborate the obvious parallels to Berkeley or Schopenhauer is not because it would be uninformative or inappropriate, but because the comparisons have already been extensively pursued elsewhere.³⁹ Instead, I will emphasize the comparison of Mind–Only epistemological idealism to the post–Kantian empiriocriticist phenomenism of Mach. Since Vasubandhu’s *Abhidharmakośa* phase of thought arguably already makes a Kantian turn and the *Viṃśatikā* represents a

³⁸MATILAL, Perception, *ibid.*, p. 2.

³⁹See CHATTERJEE, *ibid.*, pp. 204–215 and JAY L. GARFIELD, Western idealism through Indian eyes: A Cittamātra reading of Berkeley, Kant and Schopenhauer. *Sophia*, 31 1998:1.

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further critical step in his development, it seems that Mind–Only might profitably be re–evaluated as a continuation of the Kantian trajectory of critical empiricism (in other words, as an epistemology of “Experience–Only”)⁴⁰ rather than a reversion to the pre–Kantian idealism of Berkeley.

Another reason for reading Vasubandhu in an empiriocriticist vein is that both Mach and Yogācāra Buddhism may be said to have advocated a pure phenomenalism. The parallel to Mach is crucial to my interpretation due not only to his sophisticated (albeit unsystematic)⁴¹ phenomenalist point of view, but also to his notoriously die–hard skepticism about the theory of physical atomism, which will help to illustrate a plausible philosophical rationale for Vasubandhu’s anti–atomism. Just as the empiriocriticism of Mach and Avenarius may be regarded as an empiricism that has purified itself of transcendental objectivity and ontological absolutes, the Vijñāptimātra of Vasubandhu amounts to a Sautrāntika view that has eliminated the external object (*bāhyārtha*). I am aware that I am suggesting a deliberately prochronistic interpretation of Vasubandhu’s views. It is by no means an authoritative reading, but hopefully, an interesting and illuminating one.

The various philosophical ideas of the Indian ancients will be articulated largely from the perspective of analytic philosophy, while also attending to the unique concerns that they implicitly convey. The basic motivations of the classical Indian traditions seem largely alien to a contemporary philosophical audience because they were influenced by a very different historical setting and cultural outlook.⁴² Like most classical Indian philosophy, Buddhist thought of the early medieval era intimately fuses (and inevitably, often intimately *confuses*) rigorous philosophical analysis with dogmatic and sote-

⁴⁰In a similar vein, Siderits renders the doctrine of Vijñāptimātra as “Impressions–Only,” see MARK SIDERITS, *Buddhism as Philosophy: An Introduction*. Ashgate Publishing Limited, 2007, pp. 146–147.

⁴¹In fact, Mach deliberately disdains the systematic approach and even denies that he is a philosopher, preferring to practice a rather Rortyan strain of scientifically “edifying” anti–philosophy (see e.g. MACH, *ibid.*, p. 39).

⁴²The early medieval Buddhist worldview is vastly more archaic than the contemporary scientific one—many mythological elements and supernaturalist beliefs that moderns would dismiss as anachronistic superstition are taken at face value, e.g. hells, demons and magic.

1.3 Rationale and Method of the Investigation

riological concerns, to a degree rarely encountered in post–Enlightenment Western philosophy.⁴³

Moreover, Mahāyāna Buddhist thinkers are almost universally mystically inclined, and Vasubandhu, a mystic of the first water, is certainly no exception. An in–depth exploration of Mahāyāna mysticism would unfortunately be beyond the scope of this paper—a brief survey will have to suffice. But despite that for the purposes of this discussion, I will be singling out the philosophical aspect of Vasubandhu’s thought (i.e. the level of rational argument), I will not be able to avoid making some basic interpretative allowances for its religio–mystical dimensions. The subtle interplay of philosophical argument and mystical *anagagé* might seem difficult to reconcile to the modern philosophical mind. However, the lines of rational argument are fortunately easier to discern in the *Viṃśatikā* than in other writings of his later phase, e.g. the *Trimśikā* or the *Trisvabhāvanirdeśa*.

The exceedingly condensed, epigrammatic nature of Vasubandhu’s writing poses another interpretive challenge. In stark contrast to contemporary Western philosophy, which tends to valorize lengthy prose expositions that discursively expand upon their themes in exhaustive technical detail, the Indian philosophy of that period placed a premium on brevity and poetic elegance of expression. It had evolved a philosophical poetry, written in a strictly metered form typical of classical Sanskrit composition. Key philosophical themes were epitomized in gnomic verse and expanded upon in the author’s auto–commentary. The most brilliant examples of this style evoke an air of tension, paradoxicality and mystery with their austere reductions, unexpected double–turns and *double–entendre*, and constant shifting of the level of discourse.⁴⁴

Part of the reason for the use of this poetic form was to facilitate memorization, but another motivation is that verse can more easily convey elusive aesthetic subtleties and multiple levels of meaning. A poem can be read as a philosophical epitome, operating on the level of rational explanation, and on

⁴³One notable exception that integrates philosophical analysis and mysticism is Wittgenstein’s *Tractatus* (see e.g. 6.44 in LUDWIG WITTGENSTEIN; BRIAN MCGUINNESS and JOACHIM SCHULTE, editors, *Logisch-philosophische Abhandlung: kritische Edition = Tractatus logico-philosophicus*. Suhrkamp Verlag, 1989, p. 174).

⁴⁴GARFIELD, *Sophia* 31 [1998], *ibid*.

a deeper reading, function as a mystical pith instruction, which follows the entirely different *modus operandi* of deliberately perplexing the intellect so as to induce transcendence of conceptual limitations.

The paradoxical mode of expression is an integral part of the mystical attitude, and past a certain point, it defies interpretative reduction to a purely rational meaning. Vasubandhu concludes the *Viṃśatikā* in **22** with a Tractarian cliff-hanger—even he, the author himself, cannot fully understand the meaning of what he has written:

It is impossible for people like me to consider it [the doctrine of perception-only] in all its aspects, because it is not in the range of dialectics. And in order to show by whom it is known entirely as a scope of insight, it is said to be the scope of Buddhas.⁴⁵

1.4 Buddhism as Empiricist Mysticism

Unless it is read in the context of a meta-philosophical “grand narrative” or background hermeneutic, the technical analysis of Vasubandhu’s arguments against atomism will seem rather dry. The deeply apophatic finale of the *Viṃśatikā* offers a hint as to where the meta-narrative ought to begin. We will bring the hermeneutic lens of Vasubandhu as mystical proto-empirio-criticist into sharper focus by offering some intertextual reflections on the meaning of the silence of the Buddha.⁴⁶

This is the silence that Gautama Śākyamuni is said to have maintained with regard to the famous fourteen unanswered questions (*catvāri-avyākṛta-vastūni*) posed to the Buddha by the wandering ascetic Vatsagotra:

Whether the cosmos has a beginning, or not, or both, or neither.
Whether the cosmos has an end, or not, or both, or neither.

⁴⁵ANACKER, *ibid.*, p. 175.

⁴⁶In the terms of speech act theory, the Buddha’s “silence” can be characterized as a kind of illocutionary negation, i.e. non-assertion of a proposition that does not entail the affirmation of its opposite.

Whether the Tathagata exists after death, or not, or both,
or neither.

Whether the mind is identical with the body or different from it.⁴⁷

Although he held silence for many other reasons as well, Śākyamuni's silence about these questions of a specifically metaphysical nature is particularly significant, in that it prefigures the later Mādhyamika program of insubstantialism and null ontology.⁴⁸ Mādhyamika develops the Buddha's silence about absolutes into a profoundly meontological mysticism, deploying skeptical argument against all points of view in an attempt to demonstrate that the most important thing the Buddha said was nothing.

The fourteen unanswered questions moreover present a fascinating parallel to the Kantian antinomies of pure reason, where Kant raises *aporiai*⁴⁹ in demonstrating that the four ideas of rational cosmology each lead to two opposing positions that appear to be equally valid.

The first eight unanswered questions of Vatsagotra closely approximate the first Kantian antinomy of pure reason, as both reduce to *aporia* the question as to whether or not the world is spatiotemporally limited. The second of Kant's antinomies, which happens not to be among the fourteen unanswered questions of sūtric tradition, has to do with whether or not the world of experience is metaphysically constituted of simple or primitive elements, i.e. atoms. The atomists of the Abhidharma schools answer this question in the affirmative, whereas in the *Viṃśatikā*, Vasubandhu categorically responds in the negative.

As for what position Gautama Śākyamuni himself may have taken on atomism—although the earliest Buddhist corpus of texts, the Pali Canon, does not mention atomist doctrines⁵⁰ or offer any clues as to whether or not the Śākyamuni adhered to a theory of simples, in light of his silence on Vatsagotra's questions, one can easily picture what his response might have

⁴⁷NAGAO, *ibid.*, p. 37–38.

⁴⁸CANDRAKĪRTI, *Introduction to the Middle Way: Candrakīrti's Madhyamakavatara*, with commentary by Ju Mipham. Shambhala, 2002, pp. 5–6.

⁴⁹ROBERT AUDI, editor, *The Cambridge Dictionary of Philosophy*. Cambridge University Press, 1994, p. 29.

⁵⁰DRAGONETTI and TOLA, *ibid.*, p. 100.

been. I conjecture that he would have recognized the aporetic character of the issue and remained silent.

Concerning his own rationale for keeping silence about the fourteen questions, Śākyamuni does not have much to offer in the way of explanation, aside from the famous fire simile in the discourse (*sūtra*) of *Vaccagotta on Fire*. It seems that Śākyamuni intended the simile to specifically address Vatsagotra’s questions about the post–mortem status of a monk who has reached *nirvāṇa*, but it could also be construed, without too much of a stretch, to apply analogously to the other questions as well:

“And suppose someone were to ask you, ‘This fire that has gone out in front of you, in which direction from here has it gone? East? West? North? Or south?’ Thus asked, how would you reply?”

“That doesn’t apply, Master Gotama. Any fire burning dependent on a sustenance of grass and timber, being unnourished— from having consumed that sustenance and not being offered any other—is classified simply as ‘out’ (unbound).”⁵¹

Aside from the Kantian analogy, there is also a Machian parallel to the fire discourse. Mach uses examples that are strikingly similar to the sūtric simile when he accuses his fellow physicists of naïvely misconstruing concepts which properly apply strictly to sensations to refer to objective physical quantities. In the opinion of Mach, many putative scientific problems can be traced back to naïve category errors and unmasked as philosophical pseudo–questions:

‘Where does the light go when it has been extinguished and no longer fills the room?’ Such are the questions of a child. Confounded by the sudden shrinking of a hydrogen balloon, the child continues to search for the large body that had still been present just a moment ago. ‘Where does the warmth come from? Where does it go?’ Such childish questions coming from the mouths of

⁵¹THANISSARO BHIKKHU, MN 72. Online (URL: <http://www.accesstoinsight.org/tipitaka/mn/mn.072.than.html>) – accessed on June 23, 2008.

mature men determine the intellectual climate of the current century.⁵²

In view of Mach's quintessentially positivist theory of the pseudo-problem (*Scheinproblem*) and its purported root cause of metaphysical thinking, one might deduce that he would be very reluctant to acknowledge the existence of genuine *aporiai*, i.e. philosophical conundrums that are fundamentally and intrinsically intractable. Mach believes that philosophical problems are either solved or discovered to be nonsensical and futile.⁵³

It is certainly not too much to assume that Śākyamuni was aware of the existence of pseudo-problems. Therefore, we may guess that if Gautama Śākyamuni had believed the fourteen unanswered questions to be no more than pseudo-problems, he would have plainly said as much. Panikkar conjectures Śākyamuni's silence about the questions to be not an epistemic, but an *ontic* apophaticism of a metaphysically *avyākta* nature.⁵⁴ In Indian philosophy, the term *avyākta* also carries the connotations 'unmanifest,' 'all-pervading,' 'formless,' 'non-differentiated,' 'indeterminate' and 'unexpressed.' If understood in an ontological sense, we can see how *avyākta* might perhaps be comparable to Anaximander's concept of the *apeiron*. Moreover, it is worth noting that the notion of *avyākta* can be considered in some ways a precursor of the concept of *śūnyatā*, which later attained its full development in Mahāyāna thought. The ontologically negative orientation of *śūnyatā* is a Mahāyānistic reprise of the early Buddhist *anātman* principle.⁵⁵

Therefore, it may be argued that the Buddha's silence was more than merely a positivistic *epoché* about the metaphysicalities beyond the limits of experience—it was the metaphysical silence, or apophaticism of the centerlessness and ineffability of experience itself, in its immanent immediacy. This is, generally speaking, the Mādhyamika position on the issue.⁵⁶

⁵²MACH, cited in MANFRED SOMMER, *Evidenz im Augenblick: Eine Phänomenologie der Reinen Empfindung*. Suhrkamp Verlag, 2001, pp. 295–296, my translation.

⁵³MACH, *ibid.*, p. 298.

⁵⁴RAIMON PANIKKAR, *Gottes Schweigen. Die Antwort des Buddha für unsere Zeit*. Fischer Taschenbuch Verlag, 1996, pp. 47–49.

⁵⁵NAGAO, *ibid.*, p. 170.

⁵⁶We must, however, concede the impossibility of a unified or definitive hermeneutic of Mādhyamika—it has been variously read by commentators in the Western philosoph-

We will not be able to conclusively establish whether Śākyamuni's own understanding of *avyākta* questions was similar to Mach's doctrine of the pseudo-problem⁵⁷ arising from superstitions, misunderstandings, category mistakes and misapplications of language, or whether he in fact considered that there are some truly unanswerable philosophical questions pointing towards a mystical reality of "metaphysical silence."

Even if the Buddha did not articulate an explicit positivism, the empiricist tendency of eliminating metaphysics and adverting to experience is evident. Inasmuch as his silence about the fourteen questions is interpreted as a dismissal of pseudo-problems (a wholly justified interpretation) we may consider it to be the germ of a strong proto-positivist subtext in Buddhism. There are quite a number of writings in early Buddhism that clearly state empiricist viewpoints, e.g. that speculative theories which go beyond the limits of experience generate confusion and vexation rather than knowledge.⁵⁸ In early Buddhism, one finds—other than instances of the tetralemmatic negation (*catuṣkoṭi*)—little direct evidence of the deeply paradoxical formulations and the penchant for puzzling dialectic that were later to become the signature style of the Mahāyāna schools. On the contrary—Śākyamuni either speaks clearly or keeps silence.

Though he is known in many instances to have expressed a dislike of philosophical debate, I do not conceive Gautama Śākyamuni to have been a rigorous misologist. Rather, I construe his position to have been that constructive philosophical inquiry and theorizing have a primarily diagnostic or therapeutic purpose—in the language of Buddhist simile, they are rafts that must be abandoned once one has crossed over to the further shore,⁵⁹ or ladders that should be cast away after they have been climbed.⁶⁰ This

ical tradition along Kantian lines (MURTI), as nihilism (WOOD and NARAIN), deconstructivism (MABBETT), pure criticism (CHATTERJEE), skeptical mysticism (MATILAL), anti-essentialism (GARFIELD), common-sense realism (ARNOLD) or as anti-realism (SIDERITS), just to name a few exegeses that merit attention.

⁵⁷See e.g. MACH, *ibid.*, p. 298.

⁵⁸DAVID J. KALUPAHANA, A Buddhist Tract on Empiricism. *Philosophy East and West*, 19 1969:1, p. 66.

⁵⁹For a statement of the raft simile in the Nikayas, see MN 22.

⁶⁰Viz. Wittgenstein's famous ladder simile in 6.54 (WITTGENSTEIN, *ibid.*, p. 178), evidently patterned after the Buddhist raft simile.

soteriological instrumentalism is a characteristic feature of the Buddhist doctrine, and, especially in the Mahāyāna, is extended into an epistemological instrumentalism. This is also Vasubandhu's interest. In the *Viṃśatikā*, he introduces concepts not as absolute truths, but solely as an expedient means for dissolving the conceptual rigidities of the metaphysical realist.⁶¹

The Buddhist skeptical mysticism was later to attain its fullest expression in the Prajñāpāramitā corpus of scriptures and their various exegeses. The central theme of this corpus is the wisdom (*prajñā*) of voidness (*śūnyatā*). The notion of *śūnyatā*, though already present in some writings of early Buddhism, is taken up and analytically developed within the critical–skeptical framework of the Mādhyamika school of philosophy, into the doctrine that the dependently arising elements (*dharmas*) of empirical experience are ineffable (*anabhilāpya*) and void (*śūnya*)—or to restate the same matter in terms more appropriate to mysticism—apophatically negated. Phenomena in other words *cannot be said* to have essences, core bearers, intrinsic identities, existence as unitary objects, and so on.⁶² The Prajñāpāramitā radicalizes the metaphysical silence about what lies beyond the limits of experience into a meontology of metaphysical silence.

Based on this distinction of a mystical and a positivistic layer to the silence of the Buddha,⁶³ we can attempt to hermeneutically project the Buddhist epistemological discourse along two parallel and mutually complementary avenues. The “cataphatic” discourse along the *via positivistica* (i.e. the positivistic avenue exemplified by the critically purified Abhidharma approach) attempts to constructively epistemologize experience, whereas the *via negativa* (paradigmatically, the Mādhyamika) tends to frame its epistemology in terms of a skeptical and deconstructive practice.

The hypothesis that there came to be these two closely related but nonetheless distinct understandings of the Buddha's silence can provide us with a

⁶¹ANACKER, *ibid.*, p. 3.

⁶²Cf. JAY L. GARFIELD, *The Fundamental Wisdom of the Middle Way: Nāgārjuna's Mūlamadhyamakakārikā*. Oxford University Press, 1995, p. 90, who argues the subtly different thesis that they *lack* these things.

⁶³The distinction between “mystical” and “positivistic” silence that is being developed here aligns approximately with Siderits' two types of interpretation of the doctrine of emptiness, metaphysical and semantic—see SIDERITS, *Buddhism as Philosophy*, *ibid.*, pp. 182–183.

model for plotting the structural dynamic of the *Vimśatikā*. We will designate the the *via positivistica*'s métaphysical silence about the metaphysical as the “Cartesian *epoché*,” indicating that a bracketing of the transcendental object is taking place. This catchphrase is meant to suggest characteristic modes of philosophical expression such as Cartesian external world skepticism, and to hint at the notion of phenomenological *epoché* developed by Husserl in his *Cartesian Meditations*.⁶⁴

The status of the transcendental subject is left untouched by the Cartesian *epoché*, allowing for various modalities of metaphysically negating or asserting it that lead to weaker or stronger types of idealism. However, we hypothesize that the weaker modes of idealism (i.e., those obtained by metaphysical negation of the transcendental subject) generally fall closer to the centerline of the *via positivistica* because they make an effort to approximate a phenomenalist middle ground between realism and idealism. By metaphysically negating the transcendental subject, they are trying to counteract their inherent tendency to gravitate towards ontological idealism.⁶⁵ These are in other words idealisms trying to disguise themselves as forms of neutral monism or pluralism.⁶⁶

The metaphysical silence of the Buddhist *via negativa*, on the other hand, indicates the apophatic negation of the subject.⁶⁷ It will simply be equated

⁶⁴HUSSERL, *ibid.*, pp. 20–21.

⁶⁵Mach is an example of this position—he vigorously rejects the the transcendental ego and defends himself against the accusation of Berkeleyan idealism by arguing that in his system, the elements of experience depend only on each other for their existence, not on God. See MACH, *ibid.*, pp. 292–295. Carnap also feels that Mach is in denial about idealism—he argues that Mach's choice of a non-autopsychological base of constitution (“nicht-eigenpsychische Basis”) for experience does not fit into the broader picture of his views (RUDOLF CARNAP, *Der Logische Aufbau der Welt*. Felix Meiner Verlag, 1998, p. 87).

⁶⁶See LEOPOLD STUBENBERG, Neutral Monism. in: EDWARD N. ZALTA, editor, *The Stanford Encyclopedia of Philosophy* (Spring 2005 Edition). 2005 (URL: <http://plato.stanford.edu/archives/spr2005/entries/neutral-monism/>) – accessed on July 19, 2008.

⁶⁷A brief digression on meaning and levels of language—if the term “metaphysical silence” is to indicate as intended, the manner of its use must be understood to be strictly a-linguistic. A métaphysical silence about the metaphysical is a silence that can be spoken about by moving to a higher level of reflection. As opposed to this, the term “metaphysical silence” is meant to indicate an *absolute* silence that *cannot* be spoken about, i.e. a silence completely out of scope at any level of language or reflection (see ESSLER and MAMAT, *ibid.*, pp. 162–163). But we immediately observe that the previous sentence leads to

with the terms *sūnyatā*, *dharma-nairātmya* and *anātman*. Along with *pratītya-samutpāda* (dependent origination), the doctrine of *anātman* must count as one of the most distinctively Buddhist doctrines, the *anātman* doctrine may be viewed as a challenge to the primacy of transcendental subjectivity in the orthodox Vedic philosophies (*āstika darśanas*). While there is no evidence that early Buddhism rejected any kind of metempirical self, it is important to keep in mind that none of the arguments attempting to warrant the opposite thesis (that Buddhism acknowledged an *ātman*) are substantive,⁶⁸ nor is there any evidence that Śākyamuni taught an *ātman* theory.⁶⁹

That there is no evidence either way of course does not prove the hypothesis that his doctrine of *anātman* involved an *epoché* of transcendental subjectivity, but at least allows for the possibility.⁷⁰ As for the empirical reality of human existence, Buddhism almost uniformly proposes a strictly bundle-theoretic account (with the exception of the Pudgalavāda schools of early Buddhism which maintained the ultimate reality of a personal self). The bundle theory of personhood is also a recurrent theme of Western empiricism—we find it e.g. in the writings of Hume.⁷¹

In its most radical form, the the Buddhist *via negativa* may be construed as amounting to a thorough *epoché* of any and all types of subjectivity. The substantiality of the empirical self, the Cartesian and the Kantian *cogitos*,

antinomy. It is therefore impossible even to say that one cannot speak of metaphysical silence, and even this is saying too much, etc. . . . Diagonalization has come out to play here. The words “~~metaphysical silence~~” have no epistemologically discernable meaning, other than that they are struck through.

⁶⁸CLAUS OETKE, “Ich” und das Ich: Analytische Untersuchungen zur buddhistisch-brahmanischen Atmankontroverse. Franz Steiner Verlag, 1988, p. 157.

⁶⁹NAGAO, *ibid.*, p. 162.

⁷⁰In rough terms, we construe *ātman* to be any self-established metempirical position affording a “God’s eye view” of of experience (see ESSLER and MAMAT, *ibid.*, pp. 10–11).

⁷¹In some ways, the Buddhist doctrine of *anātman* resembles of the ideas of contemporary analytic philosophers who have rejected the belief in a substantive self, such as Peter Unger and Derek Parfit, see DEREK PARFIT, *Reasons and Persons*. Clarendon Press, 1984 or PETER UNGER, *I do not Exist*. in: G. F. MACDONALD, editor, *Perception and Identity: Essays Presented to A. J. Ayer with his Replies to them*. Macmillan Press, 1979.

as well as the transcendental ego of Husserl and the Tractarian notion of the transcendental subject as world–limit, are all to be apophatically negated.⁷²

Buddhism seeks to achieve egolessness by “dissolving” the transcendental ego into the stream of empirical consciousness.⁷³ After subjectivity has been bracketed, there remains only the pure “difference” of experience without any unitary forms of subjectivity or objectivity which could serve as a foundations for constructing a world or a self. As it is in fact the *ātman* which is the source of all forms of unity⁷⁴ and ontological categories falsely projected upon experience, bracketing the *ātman* also eliminates these false projections.

The *ātman* and its cognates therefore become the Buddhist soteriology’s main targets of attack. Early Buddhist scholasticism pursues the positivistic trajectory and attempts to eliminate the subject by a reductive analysis of the elements of experience into objectified least parts. This program is played out as an atomistic sense–data phenomenalism. Vasubandhu, however, puts this Abhidharmic reductionist program to an end by reasoning against transcendental objectivity—a maneuver that brings him closer to the Upaniṣadic monism of the *āstika* pattern, but also to the original *via positivistica* of Buddhism that had been derailed by the metaphysical realism of the Abhidharmikas.

In the Western history of philosophy, we can identify the epistemology of Mach as an example of this hypothetical Buddhist *via positivistica*. Mach, though tracing the sources of his inspiration to Hume, Lichtenberg and

⁷²These concepts are very different in their details, but they have one point in common—none of them are given to empirical experience. Carnap’s concept of “I” in the *Aufbau* must admittedly be granted a partial exemption from this general critique. Carnap defines the “I” as the class of elementary experiences, i.e., as their common, unifying property rather than their mere sum or collection (CARNAP, *Aufbau*, *ibid.*, p. 226). He insists that the “I” is a unity and not a mere bundle of experiences. This class of elementary experiences would be unobjectionable from a Buddhist point of view if assumed to be strictly *extensional*—as Carnap’s statement that the ego is not a primordial fact of the given would seem to indicate. But if the “I” is taken to be an *intensional* class, as his talk of unifying properties suggests, there is no means of guaranteeing that it is the *unique* unifying property of all elementary experiences other than a blatantly metaphysical act of postulation.

⁷³GUPTA, *ibid.*, p. 3.

⁷⁴Kant would prefer to say that the unity of transcendental apperception is an *a priori* condition of experience. More precisely, it is the unitary character of both the transcendental subject and the transcendental objects that accounts for the cohesive nature of appearances, see FINDLAY, *ibid.*, p. 7.

1.4 Buddhism as Empiricist Mysticism

William James (giving special credit to Lichtenberg's famous correction to the Cartesian *cogito*: "Es denkt")⁷⁵ was aware of the general tendencies of Buddhist thought and held them in high esteem, as shown in one of Mach's letters to Fritz Mauthner.⁷⁶

Nowhere does Mach propound an overtly soteriological aim in the vein of the Buddhist *nirvāṇa* (the complete cessation of suffering and freedom from afflictive states of mind) or the Pyrrhonian *ataraxia* (the happiness, freedom from worry and imperturbability arising from the skeptical suspension of belief), nor does Mach have a fully evolved apophatic mysticism as does the Mādhyamika.⁷⁷ His main focus as a physical scientist is a positivistic one—employing quantitative method to investigate the functional relationships between the elements of experience.⁷⁸

If Mach is able to mentally envision the refraction angles of the color spectrums that are generated by shafts of white light falling onto a prism, if he can predict where the Fraunhofer lines will appear and what changes will occur if the prism is shifted or if a thermometer touching the prism gives a different reading, he is satisfied. Because he views the quantitative laws of physics as mere regulatives of his empirical sensory intuition, he feels that he knows everything he can expect to know.⁷⁹

Early Buddhism, on the other hand, evolved in a historical setting in which the quantitative scientific method had not yet been developed. As a result, the aim of the Buddhist empiricism of functional relation naturally gravitated towards acquiring moral and mystical insights into the dependent arising of experience, which were elaborated into the characteristic doctrines of *karma* and selflessness.

⁷⁵In full, Lichtenberg's aphorism reads "One should say, 'There is thought,' just as one says 'there is a flash of lightning.'" ("Es denkt, sollte man sagen, wie man sagt: es blitzt."). Cited in MACH, *ibid.*, p. 23.

⁷⁶SOMMER, *Evidenz im Augenblick*, *ibid.*, pp. 345–346.

⁷⁷Mach does, however, relate that two or three years after reading Kant's *Prolegomena*, he had a formative mystical experience involving the uselessness of things-in-themselves. One bright summer day, the world suddenly seemed to him as an coherent mass of sensations, that in himself only came to cohere more strongly. MACH, *ibid.*, p. 24.

⁷⁸MACH, *ibid.*, p. 28.

⁷⁹MACH, *ibid.*, p. 258.

Nevertheless, as a key point of comparison to Buddhism, we have Mach's famous dictum "The ego cannot be saved." Mach reflected upon this insight as an ethical saving grace rather than a disaster—he believed that it would help to value things according to their real importance and inspire a more emancipated and altruistic way of life.⁸⁰

The Machian and the Buddhist worldviews are versions of what Sommer characterizes as the "inversion of gnosis." If by gnosis we are to understand a mystical knowledge of the metempirically transcendent reality of *ātman* by turning *away* from the world of empirical experience—as is the declared aim of Upaniṣadic mysticism—then the "inversion of gnosis," its polar opposite, would be a negative immanence mysticism that tries to attain knowledge of *dharma-nairātmya* by turning *towards* the world of experience. In inverse gnosis, the world is no longer believed to be that which separates us from true knowledge. Rather, it is considered that which we are separated *from* by the false dualisms of an internal and an external world, of qualia and substances, sensations and atoms.⁸¹

The hypothesis that a *via positivistica* was operational in the earliest forms of Buddhism can help to account for the strong Buddhist tendencies towards phenomenalism and epistemological idealism, which are remarkably suggestive of the empiriocriticist views of Avenarius and Mach. The Carnap of the *Aufbau* is also firmly rooted in the Machian tradition. His Vienna Circle empiricism contends that the concept of objective reality cannot be epistemologically constituted, and that nothing meaningful can be said either way about the things-in-themselves (*Dinge an sich*).⁸²

To recapitulate the "grand thesis" that is being staked out here: Vasubandhu and the empiriocriticists (including most of their positivist successors) have merely taken different on-ramps onto the same philosophical highway. Mach's epistemology has been argued by some to be influenced by the Mādhyamika.⁸³ In this exposition we will be following up on a slightly

⁸⁰MACH, *ibid.*, p. 20.

⁸¹SOMMER, *Evidenz im Augenblick*, *ibid.*, pp. 51–52.

⁸²CARNAP, *Aufbau*, *ibid.*, p. 247.

⁸³See e.g. WILHELM K. ESSLER, *On Absoluteness and Relativity: Modern Philosophy in Ancient Times*. Online, March 2007 (URL: <http://www.vfphil.de/pdf/essler-vortrag-delhi.pdf>) – accessed on July 3, 2008, p. 2.

different lead—the conjecture of a philosophical continuity between Mach and Mind-Only.⁸⁴ Admittedly, every interpretive scheme is eventually unraveled by a sufficiently close attention to the facts—this one is certainly no exception to the rule. However, Indian philosophy is such a dense and confusing topic that we will be unable to make much headway into it unless we cut some broad aisles through the undergrowth.

Following the lead of Dharmakīrti and Śāntarakṣita, Tibetan doxographers have traditionally rendered Buddhist doctrine as a ladder of philosophical views, using the method of an ascending scale of analysis to move from common-sense realism towards more rarefied epistemological views.⁸⁵ Since this has proven to be a useful approach, we will also be adopting it for the presentation of Vasubandhu’s argument in this thesis.

The itinerary for the following chapters will be to tease out the unifying strands of phenomenalism and nominalism that run throughout the different schools and historical evolutions of Indian Buddhist epistemology. We will explore how these themes were initially worked out into an atomist metaphysics, and in a later stage of development “empiricritically” revised by Vasubandhu into a non-atomistic idealism that in many respects may be considered a chip off the block of modern empiricism. We will be focusing our discussion mainly on the epistemological rationale for this critical turn. But the hermeneutic background assumption for this analysis will be that the *Viṃśatikā*’s skeptical recovery of the hypothetical Buddhist *via positivistica* is ultimately motivated by a profound shift—evident throughout the later Mahāyāna phase of Vasubandhu’s thought—towards the *via negativa*. While the métaphysical higher ground of Vijñāptimātra—the restoration of idealis-

⁸⁴An even grander thesis that won’t be argued in detail but will be present as an implicit *leitmotif* is the idea that radical empiricism (*via positivistica*) might be integrated with apophatic mysticism (the *via negativa*) into a 21st century “minimal reconstruction” of Śāntarakṣita’s Yogācāra–Mādhyamika synthesis—see ŚĀNTARAKṢITA and JAMGÖN MIPHAM, *The Adornment of the Middle Way*. Shambhala Publications, 2005. Regarding Mahāyāna synthesis, see also IAN CHARLES HARRIS, *The Continuity of Madhyamaka and Yogācāra in Indian Mahāyāna Buddhism*. E.J. Brill, 1991, p. 4, who argues *ad extenso* against the widespread scholarly view that the Indian Mādhyamika and Yogācāra present two radically opposed sets of doctrines.

⁸⁵ŚĀNTARAKṢITA and MIPHAM, *ibid.*, p. 34.

tic phenomenism⁸⁶—may the final rung of Vasubandhu’s epistemological ladder, it is not his ultimate position, but rather, a provisional antidote (*pratipakṣa*) to substantialism—a raft to be abandoned after it has been used for its intended purpose.⁸⁷

Before we can explore Vasubandhu’s strategy for regaining the Cartesian *epoché* and fully draw out the empiriocriticist parallels to the *Vimśatikā*’s argument contra atomism, it will be advantageous to examine the Abhidharmic context of its thought. We cannot expect to reasonably form an opinion on Vasubandhu’s arguments without a careful reading of his realist opponents.

⁸⁶While the characterization of Mind–Only as a species of phenomenism will prove to be a useful approximation, it should be taken with a grain of salt. In its anti–reductionism and its tendencies towards fictionalism about sense–data, the transcendental illusionism of Mind–Only oversteps the margins of phenomenism.

⁸⁷Harris opines that the strongly idealistic flavor of the *Vimśatikā* is mainly attributable to the use of a provisional mode of discourse and goes on to contend that the treatise does not, as is commonly assumed, expound a doctrine of the sole existence of the mind (HARRIS, *ibid.*, p. 173). Kochumuttom lends additional support to the hypothesis that Yogācārins do not believe consciousness to be the absolute mode of reality (THOMAS A. KOCHUMUTTOM, *Buddhist Doctrine of Experience: A New Translation and Interpretation of the Works of Vasubandhu*. New Delhi: Motilal Banarsidass, 1989, p. 226), though I think he is wrong about Yogācāra being a form of realism (*viz.* section 3.1.1, p. 77).

2 The Atomist Metaphysics of the Abhidharma

I am sitting with a philosopher in the garden; he says again and again “I know that that’s a tree,” pointing to a tree that is near us. Someone else arrives and hears this, and I tell them: “This fellow isn’t insane. We are only doing philosophy.”

(Ludwig Wittgenstein)

IN THE TRADITIONAL and modern commentarial literature, the epistemologies of the two Abhidharmika schools are universally described as being realistic or substantialistic. While the Mahāyāna schools can be viewed as idealist and skeptical variations on the basic Buddhist themes of phenomenalism and nominalism, the non–Mahāyāna schools of Abhidharma comprise their realist inflections. However, given that the nature of realism is a hotly debated topic in contemporary philosophy, what exactly is meant by this claim? A brief review of realism is in order.

2.1 Realism and Atomism

Although there are many different philosophical senses of realism, in the present context, we are only interested in the sense of realism that concerns the everyday world of macroscopic physical objects and its constituents. As we shall see, the position of the Buddhist atomists may be construed as an attempt to formulate an ontologically realist epistemology that deconstructs common–sense realism about ordinary objects—as opposed, for example, to the atomism of the Indian Nyāya–Vaiśeṣika school, which attempts to defend their objective existence.

2.1 Realism and Atomism

Realist claims can be grouped into two broad types—(1) the existence dimension involves claims that physical objects exist extramentally, as do the facts pertaining to them, whereas (2) the independence dimension has to do with claims that physical objects are independent of beliefs, linguistic practices and conceptual schemes. Realisms vary considerably in their degree of ontological commitment, but as a general rule of thumb, the more naïve (i.e., pre-critical) the realism, the larger its ontological menagerie.

Chatterjee ventures that all forms of realism must have atomistic ontologies because they are necessarily committed to some form of pluralism or other.¹ Non-atomistic systems of thought such as absolute monism (e.g. Advaita Vedānta) or subjective idealism (e.g. Cittamātra) can evince realistic tendencies, but according to Chatterjee do not qualify as unreserved realism.² Clearly, realism implies a commitment to an ontology of *some* cardinality, but why should it necessarily restrict itself to a *denumerable* ontology? In fact, it needn't, and realism often employs more powerful ontologies. But for the purpose of this investigation, we will define the atomistic hypothesis, in general terms, as the view that the ontological constitution of matter, stuff, *hylé* (or whatever else one wishes to call it) is ultimately *discrete*.

It is also important to distinguish realisms employing foundationalist theories of epistemic justification, which due to their epistemic atomism are prone to lead to an atomistic ontology, from those forms of realism employing a coherence theory of justification, which are holistic, i.e. epistemically non-atomistic, and therefore far less likely to lead to an ontological atomism.³

If and when epistemological atomism slips into ontological atomism, as it almost invariably does (though we will see that there are exceptions to the rule), then atomism entails realism. The reverse case—that realism entails atomism—only holds for *foundationalist* varieties of realism with denumerable material bases of constitution.

Moreover, we can categorize realisms into two types, according to whether they adhere to a two-term or a three-term theory of knowledge.

¹CHATTERJEE, *ibid.*, p. 65.

²CHATTERJEE, *ibid.*, p. 66.

³MICHAEL WILLIAMS, *Problems of Knowledge*. Oxford University Press, 2001, p. 117.

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The defining characteristic of the two-term theory is that bare perceptual evidence is inherently veridical in a quite strong sense. For the purposes of the present investigation, we will define two subtypes—(1) direct realism and (2) sense–datum realism. Direct realism (1) holds that physical objects themselves are directly apprehended, i.e. when we say we see a tree, we are not merely seeing sense–data—we are seeing the *tree itself* as an integral whole.⁴ In sense–datum realism (2), we are directly seeing the sense–data, which are accorded intrinsic credibility—one’s awareness of a sense datum is immediate and infallible. Sense–data are moreover held to be ontological ultimates. Thus, the evidentially given sense–data are immune to skeptical assault and constitute objectively true foundational knowledge.⁵

Representational realism (the three-term theory) holds that the “veil of perception”—a representation, aspect or sensation—intervenes between the perceiving consciousness and the object.

A metaphysical realism is any position that has not yet overcome the category of the *Ding an sich* or the transcendental objectivity. The “transcendental realist” (to use Kant’s terminology) believes that he directly experiences absolute reality. But the way we are defining it here, realism is metaphysical even if the transcendental object is never experienced in itself (as is the case in critical realism) because some degree of objective backing is still held to be required as a condition of the possibility of phenomenal experience. Critical realism relies on the transcendental reduction to distinguish which parts of experience are supplied by the mind from the parts that are given in sensory intuition.

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The view of pure or radical phenomenalism can be characterized in several ways: (1) epistemically, that things are just as they are known to be in experience and that there is nothing metaphysical to be said about them—

⁴“The tree with its grey, hard, rough trunk, its many twigs moving in the wind, with its smooth, shiny, soft leaves initially appears to us as an indivisible whole.” (MACH, *ibid.*, p. 84, my translation.)

⁵WILLIAMS, *ibid.*, pp. 105–106.

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(2) ontologically, that there is no real difference between phenomena and their essences, or even that phenomena are essenceless—or (3) semantically, “that propositions asserting the existence of physical objects are equivalent in meaning to propositions asserting that subjects would have certain sequences of sensations were they to have certain others.”⁶

In other words, radical phenomenism holds that physical objects are in a real sense constituted strictly by the sense–data of perception (and not vice versa), and that propositions about physical objects reduce to propositions about clusters of sensations or sensibilia. Knowing is grounded in the evidence of the senses, which is foundational and immediate. The bare sensations are self–disclosing (and in the case of Mind–Only, self–cognizing).⁷ Familiar objects such as material bodies, objects, wholes have only a nominal, conceptually imputed existence. In reality, they are merely bundles of sensory perceptions that are construed as objects. Phenomenism therefore disputes the claim that objects exist independently of sensory awareness. If no such awareness were to exist, all existence claims about entities would be false.⁸

In what must be acknowledged as one of the “great texts” of early Buddhist epistemology, the *Bahiya Sutta*,⁹ we find a paradigmatic example—Gautama Śākyamuni advises the bark–cloth–wearing ascetic on how to train himself in a phenomenistic mode of awareness. Bāhya, who is an advanced contemplative, receives only a very brief instruction, to the effect that his sense of ego will disappear as soon as he succeeds in correctly taking account of just his naked sensory impressions and thoughts and no more than that:

In reference to the seen, there will be only the seen. In reference to the heard, only the heard. In reference to the sensed, only the sensed. In reference to the cognized, only the cognized. That is how you should train yourself. When for you there will be only the seen in reference to the seen, only the heard in reference to the heard, only the sensed in reference to the sensed, only the

⁶AUDI, *ibid.*, p. 576–577.

⁷MATILAL, *Perception*, *ibid.*, p. 6.

⁸MATILAL, *ibid.*, p. 15–16.

⁹The *Bahiya Sutta* is from the *Udana* of the Pali Canon, one of the oldest strata of Buddhist scripture.

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cognized in reference to the cognized, then, Bahiya, there is no you in terms of that . . .¹⁰

Read as an example of “inversion of gnosis,” this *sūtra* is a classic demonstration of the *anātman* perspective in operation. Bahiya is being instructed to bracket his subjectivity.¹¹ Whereas for Husserl, phenomenological reduction involves only the suspension of empirical subjectivity, the *epoché* of *anātman* is more far-reaching in that it entails a suspension of even the transcendental subjectivity. The changing acts of knowing are purely empirical and do not refer back to an unchanging transcendental knower. Knowing exhausts itself in the known. All traces of subjectivity are dissolved by the projection of consciousness into experience in its momentariness and concreteness. The transcendental subjectivity’s construction of superimposed noemata is brought to a halt and the thusness of the experiential flux revealed.

Mach arrives at a somewhat similar view of things in *Analyse der Empfindungen*, albeit not by a contemplative route but by a speculative thought experiment. After its semantic scope is successively expanded until it encompasses the totality of phenomena, he imagines that the ego is finally dissolved. It is recognized to be a provisional concept, having at best a merely pragmatic utility—rather than a veridical representation of some metaphysical absolute underlying or overlooking the functional fabric of sensations that is revealed in the final analysis to be truly fundamental—colors, sounds, warmths, pressures, spaces, times, etc.:

The contradistinction of ego and world, between sensation or appearance and thing then drops away, and now it is merely a matter of the interrelationship of the elements $\alpha \beta \gamma \dots$ A B C . . . K L M . . . , of which this contradistinction had been only a partially applicable and incomplete expression.¹²

¹⁰THANISSARO BHIKKHU, Ud 1.10 Bahiya Sutta. (URL: <http://www.accesstoinight.org/tipitaka/kn/ud/ud.1.10.than.html>) – accessed on June 21, 2008.

¹¹Cf. ESSLER and MAMAT, *ibid.*, pp. 143–145, who read this *sūtra* as an instruction on how to bracket the object.

¹²MACH, *ibid.*, pp. 10–11, my translation.

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As does the Buddhist theory of the elements of experience (*dharmas*), Mach advocates a form of sensation pluralism.

The *Rohitassa Sutta* of the Nikayas shows evidence that early Buddhism rejected cosmological world-concepts in favor of a phenomenalist microcosm or body-world constituted by the totality of sense-impression at any given moment:

Yet it is just within this fathom-long body, with its perception and intellect, that I declare that there is the cosmos, the origination of the cosmos, the cessation of the cosmos, and the path of practice leading to the cessation of the cosmos.¹³

The sūtric doctrine of the microcosmos of the “fathom-long body” is again strikingly paralleled by the Machian notion of the *Körperwelt*—a clever *double-entendre* capturing how the world appears from the perspective of common-sense realism—as a “world of bodies,” i.e. the totality of physical objects—as well as how it appears from the less intuitive but epistemologically more sophisticated point of view of phenomenism—as a “body-world,” i.e. the logical space of sensibilia comprised by the human body.

In keeping with Buddhism’s soteriological pattern of inverse gnosis, the macrocosm is not only reduced to the mind-body microcosm, but the latter comes to be contemplated in its empirical aspect of functional flux and dispersive difference, as aggregates or bundles (*skandhas*) lacking any kind of real inner unity.

This phenomenizing reduction of the macrocosm to the microcosm is an important prototype in early Buddhism of the later Mind-Only program of subjective idealism. Vasubandhu’s refutation of Abhidharmic realism in the *Viṃśatikā* arguably represents an attempt to urge a return to this earlier ideal type of non-atomic phenomenism—a revival with a twist. In verse **16** of the *Viṃśatikā*, we rediscover the *Bahiya Sutta*’s grand theme (in the seeing, only the seen) iterated in an idealistic inversion—in the percept, only the perception (*pratyakṣa*):

¹³THANISSARO BHIKKHU, *Rohitassa Sutta* - AN 4.45 (PTS: A ii 47). Online (URL: <http://www.accesstoinsight.org/tipitaka/kn/ud/ud.1.10.than.html>) – accessed on June 21, 2008.

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The awareness of perception is as in dreams. When it exists, the object of perception does not exist.¹⁴

Nominalism Buddhist doctrine has a characteristic tendency to analyze perception and knowledge in terms of particulars, and does not accept the existence or instantiation of abstract entities such as real wholes or universals, as do other *darśanas* (e.g. Nyāya). In the context of the theory of perception, Matilal describes nominalism as the view that we are directly aware of sensible quality–particulars. These qualities do not exist apart from their instantiations, and their instantiations do not exist independently of our sensation of them.¹⁵

The development of nominalist views about *perception* is closely connected with the articulation of an *ontological* nominalism in the context of the Buddhist “bundle theory” of the body–world and its associated “no–ownership” stance on personal identity. In the *Milindapañha*, the monk Nāgasena’s famous dialogue with King Menander, Nāgasena maintains that under analysis, he does not exist as a person, and that his name “Nāgasena” is therefore a strictly nominal designation for the psycho–physical bundles, just as the conceptual label “chariot” is applied to a phenomenon that does not withstand a decompositional analysis. Since there is no more to the chariot than its parts, and none of the chariot’s parts are the chariot, Nāgasena conveys, in reality there is no such thing as a chariot.

Siderits submits that Nāgasena’s argument is proposing a kind of mereological reductionism.¹⁶ Examining a number of different readings of the chariot dialogue, Oetke makes the case that the argument is semantically underdetermined. He believes that it is far from clear precisely what philosophical argument Nāgasena is trying to make.¹⁷ However, he for some reason misses the parallels drawn by Kapstein to instances of the chariot simile in the *Kātha Upaniṣad*¹⁸ as well as in Plato’s *Phaedrus*. In this light,

¹⁴WOOD, *Mind Only*, *ibid.*, p. 100.

¹⁵MATILAL, *Perception*, *ibid.*, p. 6.

¹⁶SIDERITS, *Buddhism as Philosophy*, *ibid.*, pp. 53–55.

¹⁷OETKE, “Ich” und das Ich, *ibid.*, pp. 170–172.

¹⁸See *Kātha Upaniṣad* III.3–4 in BETTINA BÄUMER, *Upanishaden: Befreiung zum Sein*. Wilhelm Heyne Verlag, 1994, p. 216—the *ātman* is likened to the lord of the chariot,

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I conjecture that purely deconstructive intent offers a plausible reason for why Nāgasena's argument seems underdetermined. Instead of advancing any constructive thesis of his own, he is merely attempting to subvert a classic Upaniṣadic example of *ātman* theory, i.e. to demonstrate that in actual fact, the example shows the opposite of what its proponents intend it to illustrate. Kapstein, however, argues that Nāgasena's chariot argument is proposing a logical constructivist view of personal identity, and contends that it represents a possible precursor to Vasubandhu's argument against atomism.¹⁹

The logico–epistemic tradition of Yogācāra worked out a more technical elaboration of this nominalism in the so–called *apoha* (exclusion) theory presented by Dharmakīrti in the *Pramāṇavārttika*. Here, universals are interpreted as absences or eliminations—e.g., the class of trees is defined as the mere exclusion of non–trees,²⁰ which is another way of saying that trees are merely whatever is labeled as a tree, without committing to ontological proliferations such as an underlying universal of “tree–hood,” an extensional set of all trees, and so forth. In articulating the relation of abstract concept to concrete particular along strictly linguistic lines, i.e. one of naming or conceptual imputation, the Buddhist *apoha* theory avoids trading in metaphysicalites such as instantiation, exemplification or inherence.

These examples are only to illustrate that ontological nominalism, or the principle that existence, reality and actuality are in the proper sense attributed only to particulars (if at all), is a deeply rooted aspect of the Buddhist philosophical pattern.

As we will later see in more detail, the “sense–data mosaic” theory of experience is one of several ways that the Buddhist phenomenalism has been integrated with nominalism.

insight to the charioteer, the body to the chariot itself, thought to the reins, the senses to the horses, and the objects of perception to the chariot's track.

¹⁹MATTHEW KAPSTEIN, Mereological Considerations in Vasubandhu's “Proof of Idealism”. in: Reason's Traces: Identity and Interpretation in Indian and Tibetan Buddhist Thought. Oxford University Press, 2001, pp. 88–91.

²⁰Cf. SIDERITS, Buddhism as Philosophy, *ibid.*, p. 220.

The Rise and Fall of Sense–Datum Atomism A realistic sense–data nominalism allows for two possible accounts of the nature of physical objects—a regressive or a progressive theory. The *regressive* theory (that the physical object gives rise to sense–data) leads to representationalism, the *progressive* theory (that the physical object is a construction from sense–data) leads to phenomenalism, or presentationalism.²¹ The aim of Vasubandhu’s argument against atomism in **11–16** will be to demonstrate that neither of these accounts work in a realist mode.

To fill in some philosophical substructure for Vasubandhu’s delivery of this *coup de grâce* to metaphysical realism, we will briefly survey Indian atomism, reviewing the Vaiśeṣika doctrine and theorizing about the possible rationale for the development of Buddhist atomism. Following the path of reasoned eclecticism, we shall then construct two Weberian “ideal types” or models of Abhidharma synthesized from four streams of commentary—(1) modern Western scholarship of Indian Abhidharma (mainly STCHERBATSKY, FRAUWALLNER and VON ROSPATT), (2) Gelug doxography and contemporary commentary (HOPKINS, BUESCHER), (3) other modern philosophical reconstructions of Abhidharma (notably MATILAL, CHATTERJEE, GRUPP and GUENTHER), and (4) historical review of atomism in Western philosophy (PYLE).

The main focus of the discussion will be to investigate the Abhidharmic evolution of the concept of substance in the light of its critiques of time and perception. We will illuminate how this critical dynamic forced an initial shift from a progressive to a regressive theory of mind–independent physical objects, setting the stage for Vasubandhu’s abandonment of even the regressive theory.

The philosophical ground covered by this evolution is roughly equivalent to the trajectory leading from Hume through Kant to Mach.²² On an ideohistorical time scale, this is no mean achievement. But the argument we are making here is stronger. We are setting out to retrace this trajectory

²¹MATILAL, Perception, *ibid.*, p. 232.

²²Sometimes this continuity of empiricist thought is referred to as the “Hume–Mach tradition,” see e.g. GEORG HENRIK VON WRIGHT, *The Tree of Knowledge and Other Essays*. Brill Academic Publishers, 1993, p. 56.

as it is reflected in the philosophical voyage of a *single* thinker—in the 4th century CE.

2.3 The Origins of Buddhist Atomism

We will have to leave the questions of where the doctrine of atomism first originated—in ancient India or in Greece—and whether there was any exchange of ideas between these cradles of philosophy for others to answer. Democritus, the first known Greek atomist, can be dated to approximately 460 BC, whereas Kaṇada, the probable originator of atomism in India, lived possibly a century or so earlier. However, for the purposes of our investigation, it will suffice to point out that ancient India was home to numerous atomist doctrines. The theory of atomism (*paramaṇuvāda*) emerged in the *āstika* schools of Indian philosophy (e.g. Vaiśeṣika) as well as in the *nāstika* schools (e.g. Jainism).

Vaiśeṣika Atomism Kaṇada's atomism, set forth in his *Vaiśeṣika Sūtra*, was one of the most influential doctrines. Pace Kaṇada, every physical object is constituted by a finite number of *paramaṇus*—immutable, eternal, self-subsistent, indestructible, and individually distinct atoms.²³ These atoms have a spherical shape and touch each other. Vaiśeṣika proposes a theory of atomic permanents, like the atomism of the Jains, who also believed that eternal and immutable atoms flowed through events.²⁴

The Vaiśeṣika doctrine of permanents somewhat resembles the view of Democritus, who submits a reductionist material constitution theory. Democritus believes that the objectively existing compound bodies to be aggregates of atoms, which are eternal, true units, and characterized by solely by primary qualities. Atoms and the empty space they are located exist *eteêi*

²³M. HIRIYANNA, *The Essentials of Indian Philosophy*. Motilal Banarsidass, 1995, pp. 86ff.

²⁴L.C. JAIN and G.C. PATNI, *Exact Sciences from Jaina Sources Vol. 2: Astronomy and Cosmology*. Rajasthan Prakrit Bharti Sansthan, Jaipur; Sitaram Bhartia Institute of Scientific Research, New Delhi, 1983, pp. 6–7.

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(in reality), whereas colors and other sensible qualities exist only *nomôî* (by convention).²⁵

The early Vaiśeṣika atomism of Kaṇada later came to be elaborated by Vātsyāyana, a contemporary of Vasubandhu, who speculated that atoms are *absolutely* imperceptible, i.e. infinitesimal. Composite entities are integral wholes in their own right, inhering in the conglomerate (*piṇḍa*) of their atoms but having different qualities from them. The discrete atoms serve as the material base of constitution in which the real integral wholes can inhere. The perception of the integral whole (*avayavin*) takes place simultaneously with the perception of certain of its parts, e.g. even though one sees a tree in aspect, one can be said to be seeing the whole tree. In Vātsyāyana's mereology, atoms are never found in isolation. Two atoms (or least parts) cohere into a dyad-atom (*dvyaṇuka*) or least whole of atomic size, and all further combinations are formed from these dyad-atoms.²⁶

This strange construction is motivated by the difficulty that a least part is spatially partless and therefore unable to be spatially adjoined to other least parts. The dyad-atom is held to solve this problem because it has parts and can connect to other dyad-atoms in the usual fashion.²⁷

Buddhist Atomisms The Buddhist atomistic doctrines are considered by some to be among the most difficult atomist theories, their many subtleties and contradictions being a source of much polemical debate within Indian philosophy.²⁸ I will not be able to fully explore all of the aspects and issues related to the various differentiations of atomism among the many Buddhist sects. Within the compass of this thesis, I will therefore restrict myself to a survey of the most basic doctrines and developments.

In the fold of Indian Buddhism, atomist doctrines can be found in the Sarvāstivāda system of tenets, as well as in the early Sautrāntika (in Gelug doxography, the school of "Sautrāntika Following Scripture") and late Sautrāntika ("Sautrāntika Following Reasoning") systems. All three atomist

²⁵ ANDREW PYLE, *Atomism and its Critics: From Democritus to Newton*. Thoemmes Press, 1997, p. 100ff.

²⁶ ANACKER, *ibid.*, pp. 128–129.

²⁷ MATILAL, *Perception*, *ibid.*, p. 380.

²⁸ DRAGONETTI and TOLA, *ibid.*, p. 100.

2.3 The Origins of Buddhist Atomism

systems of Buddhist thought each in different ways hypothesize that the familiar physical objects of the external world are somehow constituted by ultimate simples. They maintain that all ultimate truths can be classified either as partless simples, as absences, or as cessations, and that all conventional truths reduce to their ultimate constituents.

A distinguishing feature of the Buddhist schools versus non-Buddhist doctrines of atomism can be found in their rejection of the realists' inherence (*samavāya*) theory of wholes. In fact, the Buddhist positions reject *all* theories of constitution with the exception of mereological summation.

In modern analytic philosophy, the strongly reductionist stance that there exist only partless entities is commonly referred to as *mereological nihilism*.²⁹ More precisely, the Vaibhāṣika and early Sautrāntika atomisms can be characterized as varieties of impure physicalistic mereological nihilism (atoms are physical and interact with each other), whereas the late Sautrāntika position can be classified as a pure mereological nihilism.³⁰

The position of mereological nihilism maintains that only elementary building blocks without proper parts have real existence—all seemingly discrete and integral wholes such as macroscopic objects in fact exist only as nominally designated aggregates or conglomerates, i.e. no differently than scattered mereological sums of atoms.³¹

Interestingly, there is not much controversy among commentators in that the epistemologies of all three types of Abhidharma scholasticism are considered to be different inflections of the same underlying hybrid theme of pluralistic atomism and reductionist realism.

Why and how did Buddhism initially articulate the doctrine of atomism? As we have already pointed out, the earliest strata of Buddhist writings exhibit no evidence of such doctrines. Therefore, the atomist doctrine was almost certainly a later addition and not an actual historical teaching of

²⁹JEFFREY GRUPP, Mereological nihilism: quantum atomism and the impossibility of material constitution. *Axiomathes*, 16 2006, p. 245.

³⁰GRUPP, *ibid.*, pp. 286–287.

³¹Armies and forests are stock examples of scattered mereological sums, see also JADUNATH SINHA, *Indian Realism*. Motilal Banarsidass, 1999, p. 198.

Gautama Śākyamuni (though Mahāvīra, the contemporaneous founder of Jainism, almost certainly *did* teach atomist doctrines).³²

There are three possible lines of explanation for the development of Buddhist atomism—(1) a physical atomism that was borrowed from non-Buddhist *darśana*, (2) a phenomenalist origin in minimal sensory magnitudes, and (3) a nominalist or mereological origin. According to the phenomenalist line of explanation (2), which we construe as an *epistemological* hypothesis about limit-constructs of *sensation*, the atoms are the sensations at the absolute threshold of vision, hearing, touch, etc., i.e. the “pixels” of a sensory field. While the 19th century psychophysics of Fechner was the first attempt to scientifically measure such thresholds and quantitatively determine functional relationships between stimuli and sensations,³³ it is not unreasonable to assume that the pre-scientific epistemologists of early Abhidharma were well aware of the existence of sensory limits. The nominalist line of explanation (3) is best construed as a mereological hypothesis about limit-constructs of *composition* where the Buddhist whole-part nominalism (the whole is unreal, its parts are real) comes to be radicalized into a mereological nihilism (the whole is unreal and only its self-subsistent least parts are real).

2.4 The Vaibhāṣika School

In its living details, the Vaibhāṣika doctrine of atomism has a much richer and messier philosophical texture than the abstract type we are presenting here. The Vaibhāṣika stance on perceptual experience may be described as a form of physicalistic sense-datum positivism. They believed that it was possible to separate the objective constituents of perception from the epistemic object and developed a theory of atomic substance (*dravya*).³⁴ Their theory of atoms (*paramaṇuvāda*) proposes a direct realism operating over an

³²See ESSLER and MAMAT, *ibid.*, pp. 16–16.

³³SOMMER, *Evidenz im Augenblick*, *ibid.*, p. 54.

³⁴HERBERT V. GUENTHER, *Philosophy and Psychology in the Abhidharma*. Shambhala Publications, 1976, p. 190.

ontology that hybridizes all three types of atomism—physical, phenomenalist, nominalist and physical.

The Vaibhāṣika account of perception is strongly presentationalist in flavor. Extramental objects present themselves directly to an observing consciousness–moment, without intervening representational synthesis. In other words, when observing a macroscopic object, one actually directly observes its atomic constituents in aggregate. Vaibhāṣika believes that these percepts are as real as the perception itself, and that the external world is directly grasped in non–conceptual perception.³⁵

The atomist doctrine of the Vaibhāṣika sect passed through three major phases of ideo–historical development.

The mature doctrine of atomism as presented in Vasubandhu’s *Kośa* may be traced back to the *Mahāvibhāṣā*, an encyclopaedic compendium of the Abhidharma of the Sarvāstivāda schools, dating to the 1st or 2nd century CE.³⁶ However, the first recorded mentions of a Buddhist doctrine of atomism must be credited to Dharmaśrī, the author of the *Abhidharmasāra*. This massive synthesis of extant Abhidharmic doctrine was the first commentarial work to forge the Sarvāstivāda doctrines into a system of scholastic thought. The *Abhidharmasāra* was to remain the paradigmatic model for such compendia even up until the era of Vasubandhu and Saṅghabhadra.³⁷ It has been shown that the systematic presentation and structure of the *Abhidharmakośa* is derived in large part from the *Abhidharmasāra*.³⁸

Vasubandhu’s *Kośa* and Saṅghabhadra’s contemporaneous but considerably more voluminous *Nyāyānusāra* (a polemic rejoinder to the *Kośa* in 120,000 verses) form the apex of the classical Abhidharma of the Śrāvaka-yāna, or non-Mahāyāna schools of Buddhist thought. Further developments of Abhidharma were to take place mostly in the context of Mahāyāna system-

³⁵MATILAL, Perception, *ibid.*, p. xiii.

³⁶DRAGONETTI and TOLA, *ibid.*, p. 100.

³⁷ERICH FRAUWALLNER, Die Entstehung der buddhistischen Systeme. in: Nachrichten der Akademie der Wissenschaften in Göttingen I. Philologisch-Historische Klasse. Vandenhoeck & Ruprecht, 1971, p. 124.

³⁸FRAUWALLNER, *ibid.*, p. 122.

atizations, e.g. the *Abhidharmasamuccaya* of Vasubandhu's half-brother, Asaṅga the Yogācārin.³⁹

2.4.1 Time, Space and Atom in Vaibhāṣika

Although some commentators characterize Vaibhāṣika as having a theory of atomic permanents, this is somewhat too simplistic. Anacker notes that for Dharmaśrī, atoms are momentary, though they may form “series,”⁴⁰ or causal chains of momentary events. Time is also atomized into a series of discrete instants, but the duration of these moments is so brief that the illusion of continuity is generated, as is the case with the frames of a motion picture following in rapid succession.⁴¹ The atomizing approach has the greatly attractive feature of not having to account for the genidentity of macroscopic physical objects,⁴² as under analysis, the appearance of a physical object persisting in time simply explodes out into the causal chain of momentary instants of its atomic decomposition.

The Vaibhāṣika are known as Sarvāstivādins due to their canonical tenet that “everything exists” (*sarvam asti*), meaning the existence of entities in past, present and future. The epistemological rationale for this principle is the wish to defend a form of externalism—because knowledge is always knowledge of the real, the intentional objects of epistemically valid cognitions must somehow exist.⁴³

The *Kośa* offers up a number of other arguments in favor of the *sarvam asti* thesis, including causal and moral rationales such as that past entities

³⁹ASANGA, *Abhidharmasamuccaya*. Asian Humanities Press, 2001.

⁴⁰ANACKER, *ibid.*, p. 126.

⁴¹The discrete concept of time was simply taken for granted—there is no evidence that any of the Sarvāstivādin sects believed time to be infinitely divisible, see ALEXANDER VON ROSPATT, *The Buddhist Doctrine of Momentariness*. Franz Steiner Verlag, 1995, p. 98.

⁴²See KURT LEWIN, *Der Begriff der Genese in Physik, Biologie und Entwicklungsgeschichte*. in: ALEXANDRE MÉTRAUX, editor, *Werkausgabe*. Volume 2, Klett-Cotta, 1983, also MARTIN BECKER, *Zum Begriff der Genidentität - Eine Untersuchung der Wissenschaftstheoretischen Schriften von Kurt Lewin*. Master's thesis, Johann Wolfgang Goethe University, Frankfurt am Main, 1998.

⁴³DAVID BASTOW, *The Mahā-Vibhāṣā Arguments for Sarvāstivāda*. *Philosophy East and West*, 44 1994:3, p. 490.

must exist in order for present effects to be brought about, and that future entities must exist or else actions would not have consequences.

Time As the Sarvāstivāda Abhidharma continued to evolve, it became increasingly aware of the problem of time. The concept of an immutable entity migrating through the stages of time was no longer acceptable,⁴⁴ as eternal substances were held to be contrary to the fundamental Buddhist doctrine of transience (*anityatā*). Due to this doctrinal concern, the Vaibhāṣika Abhidharmikas were under pressure to evolve more sophisticated accounts of substance and time.

All elements of experience (*dharmas*), including atoms, persist in the three periods of past, present and future. In modern terms, the *sarvam asti* principle may be described as a “block universe” account of space–time, as it affords equal ontological status to all moment–entities regardless of their time.⁴⁵ The Vaibhāṣika advanced four major accounts of temporality, credited to the encyclopaedists of the *Mahāvibāsā* who originated them: Dharmatrāta, Ghoṣaka, Vasumitra, and Buddhadeva.⁴⁶

The *Kośa* attributes to Dharmatrāta the time theory of “change of existence” (*bhāva–parināma*), turning on a substance–existence account of change. The existence (*bhāva*) of an element is an accident that can arise and cease, whereas the substance (*dravya*) is eternal. This view is immediately dismissed as a guise of the previously refuted non–Buddhist Sāṃkhya system.

Ghoṣaka is attributed with the view of “change of aspect” (*lakṣaṇa–parināma*), which asserts that entities have three temporal aspects or qualities (*lakṣaṇas*)—pastness, presentness and futurity. A future entity is merely an entity that is appearing under its future aspect and hiding its past and

⁴⁴ERICH FRAUWALLNER; ERNST STEINKELLNER and SOPHIE FRANCIS KIDD, editors, *Studies in Abhidharma Literature and the Origins of Buddhist Philosophical Systems*. State University of New York Press, 1995, p. 192.

⁴⁵See SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 116, A. CHARLENE MCDERMOTT, *The Sautrāntika Arguments against the Traikālyavāda in the Light of the Contemporary Tense Revolution*. *Philosophy East and West*, 24 1974:2, p. 194.

⁴⁶THEODOR STCHERBATSKY, *The Central Conception of Buddhism*. New Delhi: Motilal Banarsidass, 1988, p. 78.

present aspects. The *Kośa* rejects this theory, reasoning that it implies a contradictory compresence of past, present and future in the same entity.

Frauwallner observes that the last two theories, the views of Vasumitra and Buddhadeva, account for time exclusively in terms of external connection, most likely in an attempt to avoid the difficulties inherent in Dharmatrāta's and Ghoṣaka's substance-oriented theories of time.⁴⁷

Buddhadeva proposes a relational theory of time, where temporality is accounted for as a change of contingency (*apekṣā-parinaṃa*). Change is governed by a tenseless binary relation between entites (*dharma*s), such as “*x* is earlier than *y*,” that imposes a partial order upon them.⁴⁸ An examination of the *Kośa*'s refutation of the theory of Buddhadeva reveals it to be identical to the classic McTaggart argument against the reality of time. If events are ordered by a two-term relation into what amounts to a McTaggart B-series, then each event comes to have all of the McTaggart A-determinant properties—the present moment is also future because it is later than another moment, and past because it is earlier than a later moment. The Vaibhāṣika deployment of McTaggart argument against temporal order drops a strong hint about the developmental trajectory of Abhidharma views on the reality of time.

The theory of Vasumitra is described as “change of position” (*avāstha-parinaṃa*).⁴⁹ The *Kośa*'s explanation and critique of the four Vaibhāṣika theories of time concludes that the theory of Vasumitra is the correct view.

Frauwallner conjectures that the positional theory is a conglomerate of two contradictory theories of temporality—each proposed by a scholar named Vasumitra—which were conflated in later doxography. He points out that the abacus analogy⁵⁰ used to show the intent of the theory logically excludes the ideas of efficiency and change.⁵¹

⁴⁷FRAUWALLNER, *Studies in Abhidharma Literature and the Origins of Buddhist Philosophical Systems*, *ibid.*, p. 189.

⁴⁸STCHERBATSKY, *ibid.*, p. 80, see also MCDERMOTT, *ibid.*, p. 196.

⁴⁹STCHERBATSKY, *ibid.*, p. 78.

⁵⁰An abacus bead acquires a different place-value depending on the position it is placed in—units, tens, or hundreds.

⁵¹FRAUWALLNER, *Studies in Abhidharma Literature and the Origins of Buddhist Philosophical Systems*, *ibid.*, p. 190.

But the assumption that Indian Buddhist doxographers conflated two different Vasumitras is scarcely credible, especially not when it comes to such a central theme in the Vaibhāṣika philosophy of time. It is more reasonable to hypothesize that the conglomeration of seemingly contradictory views was a synthesis attempted by a single scholar.

The general scheme of Vasumitra's synthesis as I conceive it is that of strongly reductionist reformulation of the concept of time in terms of change and causality. Temporality itself is effective action in the infinitive, and the tenses past, present and future are the modal positions of this "causal arrow." An entity is real iff it is effective, which holds for any of the following three cases: its efficiency is actually being discharged (present),⁵² if it is possible for its efficiency to be discharged (future), or if it is not possible for its efficiency to be discharged (past). The temporal position of a future or past entity in other words depends on whether it is possible or impossible for the entity to discharge an effect. Moreover, the position is considered to be external to the entity, rather than a property or accident of it—in other words, it is the entity's modal context. Past and future entities are held to exist *de re*.

Thus, Vasumitra's "temporal eliminativism" refines the philosophically naïve eternalist account of time taken over from the Vaiśeṣika atomism into a considerably more sophisticated modal account which explains how entities can meaningfully be said to exist in past, present and future without resorting to metaphysicalities such as absolute time and eternal existence. Vasumitra's account is still straightforwardly realist, but it does away with the dimension of time.

A present entity is a real actuality, past and future entities are possible and impossible real actualities, respectively. The concept of substance is identified with function, and the coming into appearance of an element is explained as the presence of the necessary conditions for its function. In this, we see the idea being reflected that the criterion of reality is efficiency (*arthakriyākāritva*)—a basic Abhidharmic theme which is agreed upon all the way through to Cittamātra and beyond. The debate on this issue can

⁵²In this case, it is said to have actuality (*kāritra*).

now be crystallized around the Vaibhāṣika and Sautrāntika defense of an externalist version of this principle.

So far from being a mistaken and inconsistent conflation of separate theories, as Frauwallner uncharitably claims, Vasumitra's theory should be considered a novel and significant development in the Abhidharmic critique of time.

Nonetheless, there remains a major philosophical tension in the theory of Vasumitra. Why is it that we only ever experience the present, if the past and future are essentially equally real?⁵³ One way that Sautrāntika attempts to resolve this tension is to retain Vasumitra's modal account of time but abandon modal realism about the past and future, thus arriving at its characteristic doctrine of momentariness (*kṣaṇikavāda*), about which we will later have more to say.

Space The Vaibhāṣika system asserts that atoms are partless, that there are intervals of empty space (interstices) between atoms, and that the substance-atoms do not touch when aggregated.⁵⁴ This is also asserted by some Sautrāntikas, e.g. by Saṃgharakṣita.⁵⁵

However, the Sautrāntika critic Yaśomitra maintains that in the Vaibhāṣika view, substance-atoms are without the quality of impenetrability or resistance (*pratighāta*), which entails the quality of covering or spatial extension (*avarṇa-lakṣaṇa*).⁵⁶ Obstruction is an emergent quality of the aggregate-atom (*saṃghāta-paramaṇu*), as is spatial extension. The *saṃghāta-paramaṇu* is argued by the Vaibhāṣika to be both extended and partless.

The Vaibhāṣika substance-atom resembles the view of Hume, in that Hume also takes perception to be ultimately constituted of simples or *minima sensibilia*: "A single visual atom, in itself, has no extension, but combinations

⁵³STCHERBATSKY, *ibid.*, p. 80.

⁵⁴JEFFREY HOPKINS, *Maps of the Profound: Jamyang Shayba's Great Exposition of Buddhist and Non-Buddhist Views on the Nature of Reality*. Snow Lion Publications, 2004, p. 225.

⁵⁵HOPKINS, *ibid.*, p. 402.

⁵⁶JOHN B. BUESCHER, *Echoes from an Empty Sky - the Origins of the Buddhist Doctrine of the Two Truths*. Snow Lion Publications, 2005, p. 77.

of atoms do. The perception of an object composed of two or more atoms is complex, since it is a perception with more than one spatial part.”⁵⁷ According to Ayer, Hume contends that the impression of any physical extension must be compounded of a finite number of mathematically point-like sense impressions, which are concrete objects. Because these objects are partless, they are the smallest conceivable sense-data.⁵⁸

Vaibhāṣika scholasticism defines space (*ākāśa*) in purely negative terms as absence of obstructive contact and enumerates it as one of the three uncompounded phenomena. But unlike the other Buddhist tenet systems, Vaibhāṣika considers space to be existent (*sat*),⁵⁹ a partless, permanent substantial entity,⁶⁰ and infinitely divisible.⁶¹

Clearly, the Vaibhāṣika system proposes the existence of absolute space, though it still lacks an explicit notion of what one would call in the terminology of modern mathematics an intrinsic geometry or metric, a difficulty which we will return to later on in Chapter 3.

Atom A substance-atom (*dravya-paramaṇu*) is an irreducible sensation-unit of a certain sensory type, i.e. it is visual, tactile, auditory, olfactory, etc. These sensibilia are metaphysically real qualities and are objectively present in the world. In this respect, the Vaibhāṣika atomism can be characterized as phenomenalist, i.e., derived from the notion of minimal perceivable magnitudes. But the idea of atoms being located in absolute space necessitates that they be somehow smaller than *physiological* minimal perceivable magnitudes.

The visual features of an object, e.g. a tree, should otherwise be independent of the viewer’s distance to it, which is clearly not the case—the closer we move to the tree, the more visual detail we are able to resolve. But why are the Vaibhāṣikas willing to sacrifice the purity of a phenomenalist atomism of sense-minima in order to preserve a notion of absolute space? Perhaps

⁵⁷KÁRANN DURLAND, Hume’s First Principle, His Missing Shade, and His Distinctions of Reason. *Hume Studies*, XXII 1996:1, p. 121.

⁵⁸A. J. AYER, Hume. Oxford University Press, 1980, p. 48.

⁵⁹BUESCHER, *ibid.*, p. 79.

⁶⁰HOPKINS, Maps of the Profound, *ibid.*, p. 224.

⁶¹BUESCHER, *ibid.*, p. 181.

they feel that they are making a reasonable concession to realism. To ensure that “the things we really see when we say we see a tree” are not solipsistic fictions, they need to have an objective existence—and this requires a transcendently objective space (*ākāśa*) to serve as an observer-independent frame of reference.

Matilal points out an instructive comparison of Vaibhāṣika to the view of Ayer, who “recommends that we conceive of perceptible external objects as being literally composed of the ultimate particles of physical theory, these being imperceptible, not in principle, but only empirically, as a consequence of their being so minute.”⁶²

According to the Vaibhāṣika, a *dravya-paramaṇu* never occurs in isolation. It is always a part of an aggregate-atom, or basic cluster of atomic sensory properties (*saṃghāta-paramaṇu*). These aggregate-atoms are only perceptible in collection, although they each appear individually to the sense-consciousness.⁶³

The Sarvāstivādin neo-orthodoxy of Saṅghabhadra, as critiqued in the *Kośa*⁶⁴ and defended in the *Nyāyānusāra*, specifies that each aggregate-atom consists of a total of at least sixteen substance-atoms—each of the four sensory atoms of color, odor, taste and tangibility being accompanied by its own set of four general elemental atoms.

These four fundamental elements (*mahābhūtas*) which, like all Buddhist elements, are more like force than substance,⁶⁵ function as the intensive magnitudes of their associated aggregate-atom. The earth element represents the qualities of solidity, hardness and repulsion; the water element represents cohesion and attraction; fire corresponds to temperature and air to motion.

Every aggregate-atom contains one atom each of these four. Earth, water, fire and air are always present in equal proportion—the difference lies only in their perceptual intensity. A tiny point of light can shine dimly or brightly, steel needles are more intensely felt than the touch of a brush, etc.⁶⁶

⁶²MATILAL, Perception, *ibid.*, p. 12.

⁶³BUESCHER, *ibid.*, p. 127.

⁶⁴ANACKER, *ibid.*, p. 127–128.

⁶⁵STCHERBATSKY, *ibid.*, p. 13.

⁶⁶STCHERBATSKY, *ibid.*

Another variant of the Vaibhāṣika atomic theory is offered by the scholar Dīpakāra. According to this theory, the aggregate–atom is formed of a minimum of seven substance–atoms. We may hypothesize that one atom is located in the center of the aggregate’s cubic spatial “receptacle” and the six other atoms are positioned at the cube’s vertices. The minimal aggregate–atom comprises one atom each of the fundamental elements (which together constitute the aggregate–atom’s tactile properties), and one substance–atom each of color, odor, and taste.⁶⁷

The most important points to keep in mind about this bewildering multiplicity of Vaibhāṣika atomic theories are that the atoms are held to have spatial extent and to be separated by interstices. Also, the shape (*saṃsthāna*) of a visual atom is held to be an ultimate and can be perceived independently of color.

The Vaibhāṣika system of tenets is unmistakably phenomenalist—all that exist are sensory qualities and their intensities. An eternal substance as is proposed by the Sāṃkhya is denied by the Vaibhāṣika (with the exception of Dharmatrāta). Moreover, Vaibhāṣika presents a full–blown reductive account of sensation, where the likeness of a macroscopic physical object is simply *identified* with the spatial arrangement of a vast number of elementary sensation–particulars or microscopic tropes.⁶⁸ In other words, this assembly of spatiotemporally determinate, mind–independent micro–tropes is what we *actually* have commerce with when we think we are perceiving a macroscopic physical object. The world is built up out of the epistemically and ontologically ultimate bits and pieces given in immediate sensory experience.

Therefore, although the Vaibhāṣika are considered by Buddhist doxography to be a substantialist school, the somewhat paradoxical situation obtains that the Vaibhāṣika substances are equivalent to the sense–data themselves.⁶⁹ Substance is completely identical to trope—a sense–datum requires no further substrate. In this particular respect, the Vaibhāṣika mosaic theory is closer to the hypothetical “original flavor” of early Buddhist

⁶⁷ ANACKER, *ibid.*, p. 128.

⁶⁸ See SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 115.

⁶⁹ STCHERBATSKY, *ibid.*, p. 12.

phenomenalism than its critical refinement, the Sautrāntika, which moves away from the phenomenizing idea of the simple as a sensory ultimate in favor of a progressive account of the constitution of physical objects.

Though in many ways a compromise with physical realism, the Vaibhāṣika system is by deliberate design far too reductionistic to qualify as a truly “naïve” physical realism such as Nyāya–Vaiśeṣika, which asserts the real existence of wholes, universals and actions.

The Vaibhāṣika propose a quintessentially Buddhist solution to the qualia problem. Their atomizing, objectivizing phenomenalist reductionism simply denies that sensations have any intrinsic subjectivity in the ultimate view. To Vaibhāṣika, “raw feels” such as minute flashes of color, tactile pin-pricks etc, are wholly public, mind-independent and objective. Vaibhāṣika argues the notion that sensation-atoms are somehow private to the perceiving consciousness to be an egological error.

2.4.2 Critical Review of Vaibhāṣika Presentationalism

In the debate on time in the fifth chapter of Vasubandhu’s auto-commentary to the *Kośa*, the Sautrāntika takes the Vaibhāṣika to task over the *sarvam asti* thesis and the notion of *kāritra*. Among other criticisms, the Sautrāntika interlocutor denies the intelligibility of the Vaibhāṣika’s claim that past and future entities exist in the same sense as present entities. That Vasumitra’s theory should pose many difficulties in this regard is unsurprising, as in the terminology of modern logic, assertion of the existence of past and future entities would entail quantification into modal context. The Sautrāntika also argues against the Vaibhāṣika ideas that future existents come into appearance by entering the scope of the present, and that the time of an entity is something separate from the entity itself. In analogy to A. N. Prior’s ideas about the logic of time, the Sautrāntika would simply eliminate the metaphysical distinctions between the temporal status of an entity, its function, and its intrinsic nature.⁷⁰

⁷⁰MCDERMOTT, *ibid.*, p. 197.

Later on in the debate, the Sautrāntika presses the Vaibhāṣika to concede that the intentional object (*viśaya*) of a cognition can be a Meinongian⁷¹ absistent (*Gegebenheit*): “Thus it is that both existence and non–existence may be objects of cognition.” If cognitions about irrealia are not admitted, he reasons, many absurdities result—such that if one desires not to hear an unpronounced word, one would be compelled to actually pronounce the word in order to satisfy externalism about intentionality. However, if the Vaibhāṣika yields to some version of Brentano’s thesis of intentional inexistence, then it becomes much more difficult for him to resist the Sautrāntika’s fictionalism about past and future entities.⁷² As against existence in past, present and future, the Sautrāntika is advancing a version of Augustine’s view that “the present of things past is in memory; the present of things present is in intuition; the present of things future is in expectation.”⁷³

There are problems in reconciling the Vaibhāṣika of objective sense–data with phenomenalism—it is difficult to conceive of a reasonable account of the existence of unsensed sensibilia that does not make liberal use of counterfactuals. If we lock a blue ball into a lightproof black box, surely it is ridiculous to say that the ball is blue even inside the box where there is no light and nobody can see it—what we mean is something of the sort that, given the same perceptual conditions inside the box as outside, if we were able to see the ball, it would be blue.

Ayer cogently observes that there are no empirical means of settling the question as to whether or not sense–data can exist while they are not being apprehended.⁷⁴ Another Ayerian objection to the Vaibhāṣika position would be that that a phenomenalist who speaks of sensibilia as having a distinct existence in space and time has not fully carried out his program—his so–called sensibilia are merely physical objects in disguise.⁷⁵

⁷¹Sinha remarks that it is misleading to compare the Sautrāntika representationalism with contemporary forms of realism, but nonetheless draws a rough parallel to Meinong, see SINHA, *ibid.*, p. 222–223.

⁷²STCHERBATSKY, *ibid.*, pp. 83–91.

⁷³AUGUSTINE, cited in MCDERMOTT, *ibid.*, p. 196.

⁷⁴A. J. AYER, *The Terminology of Sense-Data*. in: *Philosophical Essays*. Macmillan Press, 1954, p. 75.

⁷⁵A. J. AYER, *Phenomenalism*. in: *Philosophical Essays*. Macmillan Press, 1954, p. 165.

Pyle raises the concern that a theory of perception predicated upon a mereological nihilism about compound bodies cannot be realist in the strict sense—if the existence of compounds is denied, the *explanandum* of the atomic theory is lost and the atomic theory of perception must be construed as an “error–theory” about why we hold mistaken views when we see macroscopic objects.⁷⁶ However, this objection is not really a problem for the Vaibhāṣika since he *intends* to propose an error–theory of perception.

Yaśomitra’s critique of the Vaibhāṣika atom concept in his commentary of the *Kośa* is an anticipation of Vasubandhu’s critique in the *Viṃśatikā*: “In the *Abhidharmakośa* and in Yaśomitra’s commentary, the Sautrāntikas—who refused to accept that conglomerate atoms were without parts—then pressed the Vaibhasikas. They asked them how it could be that if none of the substance atoms were extended in space and if none of them offered any resistance, how could many together do this? How could one put together many atoms that took up no space and obtain something with any extension at all?”⁷⁷

Although atoms are said to be directly observable, they are not evident to ordinary perception, like houses, pots and trees. The atom therefore remains a metaphysical construction, and if it is admitted that the existence of atoms is only known by inference (*anumāna*) to the best explanation, then who is to say that there cannot be some other, better explanation for phenomenal appearances? This Mind–Only critique will form a part of Vasubandhu’s argument against the Vaibhāṣika position later on in Chapter 3. For the idea that atoms are observables only collectively but not individually comes very close to a causal theory of perception.

As Matilal puts the Mind–Only argument—“If the so–called atoms generate perceptions out of their own power, why are they not also grasped in such perceptions?”⁷⁸ But as ultra–nominalists, the Vaibhāṣika have no other choice but to defend a doctrine of *homeomeria*.⁷⁹ Vaibhāṣika encounters the difficulty that it wishes to maintain on the one hand that the atomic sensa-

⁷⁶PYLE, *ibid.*, p. 108.

⁷⁷BUESCHER, *ibid.*, p. 77.

⁷⁸MATILAL, *Perception*, *ibid.*, pp. 368–369.

⁷⁹In Greek atomism, *homeomeria* refers to the doctrine that the atoms constituting a substance must themselves have the salient observed properties of that substance.

tions are sensed directly, yet on the other hand claims that they are sensed only in aggregate. The Vaibhāṣikas assert that an isolated minute particle is not an object of a sense–consciousness, nor is it the composite as a whole, as composites are merely imputed collection–generalities (*gaṇa–samanya*).⁸⁰

In this critique, which will be the critique of Vasubandhu, we find a close affinity to Mach’s rejection of atomism due to his skepticism about imperceptible entities: “All his life, Mach was never able to make friends with the atomistic corpuscle theory. In discussions, whenever anybody presumed the existence of atoms as a matter of course—and we may assume that this happened quite frequently—he irascibly interjected: ‘Have you ever seen one?’ (‘Hams ans g’sehn?’)”⁸¹

The purpose of physics, according to Mach, is not to determine the fundamental ontological constituents of reality, but rather, to explore and describe the functional relationships between the elements given to experience. To Mach, it would be an unforgivable case of métaphysical confusion to conflate sensations (the “given” or sensory core of experience) with atoms (ontological ultimates).

The Vaibhāṣika account of shape is deeply counterintuitive. Why is it that individual atoms come to be attributed with a substantial shape which is however imperceptible, whereas the perceptible shape of macroscopic objects is held to be merely conceptually imputed? Wouldn’t it be more reasonable to argue that perceptible shapes are real and imperceptible shapes are imputed?

Finally, realistic presentationalism is uncomfortably vulnerable to argument from illusion—how to say, for example, that a stick partly submerged in a glass of water only *appears* to be bent?⁸²

A radical phenomenalist of the Machian stripe argues that there is really no such thing as illusion, or rather, that it is not possible to draw a metaphysical distinction between illusion and veridical perception.⁸³ For him,

⁸⁰BUESCHER, *ibid.*, p. 130.

⁸¹SOMMER, *Evidenz im Augenblick*, *ibid.*, p. 78, my translation.

⁸²CHATTERJEE, *ibid.*, pp. 53–56.

⁸³See MACH, *ibid.*, p. 8. Like Mach and the Mind–Only, Carnap also conveys that the reality problem, or distinction between illusion and veridical perception is a purely empirical one, see CARNAP, *Aufbau*, *ibid.*, pp. 237–238.

the entire issue of illusion is a pseudo–problem of the metaphysical realist—whenever we speak of illusion, we can be sure that something metaphysical is cooking. Similarly, wherever the epistemic reductionist may go, the hobgoblins of emergent properties and behaviors follow not far behind.

“Illusion” is unreal—or so we believe. It is an explanation for what is happening when the synthetic activity of sensory perception generates some epistemically ungrounded percept. Except for deceiving us, the illusion is causally inert. “Emergence,” however, is quite real—or so we suspect. It is our account for what is happening when dynamic interaction of a physical system generates some ontologically irreducible property. Here, a radical phenomenalist not committed to realism will argue that illusion and emergence are philosophical enantiomorphs. As soon as we draw a metaphysical divide between the epistemic subject and the object, the problem of illusion rears its ugly head on the side of the subjective constitution of experience and the problem of emergence arises on the side of the objective constitution.

The Vaibhāṣika will insist that it is all a matter of finding the “predetermined breaking point” between the subject and the object. He will argue that there cannot be such a thing as an illusion of a tree, because “tree” is merely a linguistic and conceptual convention imputed to some patches of color that we see. But how to account for the fact that these colored blobs are spatiotemporally correlated with certain tactile sensations of roughness when we attempt to touch the trunk of the tree? The things that we are seeing and the things that we are touching, the Vaibhāṣika explains, are the same things—our sensory awareness is making direct contact with the visual and tactile sensation—atoms are objectively located in space and exist independently of our awareness. When we close our eyes, where do the colored blobs go? They don’t go anywhere, the Vaibhāṣika avers—they are still out there in space, but our sensory awareness simply loses contact with them. But this account is badly vulnerable to argument from hallucination—where do the pink rats go when one closes one’s eyes?

To preserve external world realism, the Vaibhāṣika must concede the possibility of illusion and attempt to explain it as an error of perceptual synthesis. Without perceptual synthesis, it is difficult to account even for

cases of “veridical” perception. For example, the problem of inferring a visual object’s shape from its two–dimensional projection does not admit to a unique solution. This intractable problem is converted into a solvable one by adding hard–wired assumptions about how the world is usually put together. Sensory illusions arise in cases where these *a priori* assumptions are violated.⁸⁴

But perceptual synthesis is exactly what the Vaibhāṣika direct realist account of perception wishes to deny—it argues that in non–conceptual perception, we see things as they actually are, and that we are only making a conceptual imputation (*prajñāpti*) when we think we see a gross physical object.

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An important feature of the philosophical program of the Sautrāntika school as we construe it here is to attempt to reconcile the basic principle of empiricism (that knowledge arises from experience and is limited to the realm of experience) with the discovery of the synthetic character of empirical knowledge, i.e. the realization that its constitution is dependent upon categories and assumptions not present in immediate experience.

In this regard, its representationalist epistemology closely accords with the familiar Kantian program of critical realism, which posits that it is necessary to make *a priori* posits that are epistemically prior to the content of experience; but that such métaphysics is only possible if it is strictly limited to the deduction of the conditions of possible experience.

Of all the schools of Indian philosophy, the Sautrāntika was the only one to take such a Kantian turn.⁸⁵ The reason for this unique ideo–historical development can only be that Sautrāntika was attempting to address the same philosophical challenge as Kant—the need to critically reformulate empiricist realism in such a way as to avoid surrendering realism about a mind–independent world.

⁸⁴STEVEN PINKER, *How The Mind Works*. W. W. Norton & Company, Inc., 1997, p. 212.

⁸⁵GUPTA, *ibid.*, p. 168.

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Chatterjee observes that Sautrāntika is not so much a new philosophy as the critical analysis of the implications of the Sarvāstivāda realism. “The Sautrāntika must be understood as Sarvāstivāda itself, aware of its own logical basis. They are not two schools, but two phases of the same metaphysical pattern.”⁸⁶

Though Sautrāntika must also be considered an Abhidharmic school, its critical turn of the Abhidharmic pattern forced some important doctrinal points of difference to the Vaibhāṣika concerning the understanding of Abhidharma. The dogmatic presentation of the original seven texts of Abhidharma dating approximately to the 2nd century BCE as the revealed word of the Buddha needed to be called into question. The Sautrāntika strategy for resolving this dilemma was to argue that while Abhidharma existed, it was in fact diffused throughout the *sūtras*.⁸⁷ The Sautrāntikas held that the independent set of seven core scriptures known as the Abhidharma could not lay claim to being categorically valid word of the Buddha (*buddhavacana*) taking precedence over interpretations conforming to the *sūtras* in case of any conflict between the two.⁸⁸

Having liberated themselves in this way from the straitjacket of dogmatic scholasticism, the Sautrāntika epistemologists were able to articulate two important doctrinal innovations over the system of the Vaibhāṣikas—the theory of presentism and the causal theory of perception.

Della Santina remarks that the Sautrāntika emphasis of of the rôle of conceptualization, or discrimination (*vikalpa*) is connected to their critique of the Vaibhāṣika category system. Synthesis now begins to fill in for many factors of experience that were previously claimed to be objective realities: “They rejected the independent, objective reality of many of the factors the Vaibhashikas accepted, ascribing these dharmas to the functioning of discrimination or imagination. This goes some way toward the standpoint of

⁸⁶CHATTERJEE, *ibid.*, p. 3.

⁸⁷BUESCHER, *ibid.*, pp. 26-27.

⁸⁸ANACKER, *ibid.*, p. 152.

the Mind–Only school, which eventually denied the objective reality of all objects and affirmed the sole reality of mind.”⁸⁹

Like Kant, Sautrāntika has become aware of the synthetic activity of the mind—however the *vikalpa* is construed as a synthesis of the unreal rather than the real, in keeping with the Buddhist principle of nominalism.

Generally speaking, the division of the two truths according to the two means of valid knowledge or epistemic grounding (*pramāṇas*) recognized by the Sautrāntika school relegates direct sensory perception or evidence (*pratyakṣa*) to the level of phenomenal (*saṃvṛti*) truth and inference or rational demonstration (*anumāna*) to the noumenal (*paramārtha*) truth. In Sautrāntika, the real is given only to reason, and the correspondence (*sārūpya*) between internal cognition and external cause is the criterion of truth.⁹⁰

2.5.1 Time, Space and Atom in Early Sautrāntika

Time Even though the Sautrāntika claims itself to be a reconstruction of the original sūtric teachings of the Buddha, the Sautrāntika doctrine of momentariness does not figure in earlier Buddhist writings and must be considered a proper innovation of the Sautrāntika system.⁹¹ In Sautrāntika, momentariness is not confined to phenomenal appearances—even ultimate truths such as substances are held to be in flux.

Von Rospatt traces the conceptual evolution of the instant (*kṣaṇa*) from the momentary interval to the time–atom (irreducible duration) to the completely durationless present in great detail, and summarizes his findings as follows:

The usage of *kṣaṇa* in the sense of momentary entity documents that the change in the conception of the term *kṣaṇa* was brought to its logical conclusion. Starting out with the basic meaning of “very short time,” the *kṣaṇa* came to be understood—reflecting an atomistic conception of time—as “the shortest unit of time,”

⁸⁹PETER DELLA SANTINA, *The Philosophy of Mind-Only*. in: *The Tree of Enlightenment*. Online (URL: <http://www.ecst.csuchico.edu/~dsantina/tree/>) – accessed on April 12, 2008.

⁹⁰See SINHA, *ibid.*, p. 35 and STCHERBATSKY, *ibid.*, p. 56.

⁹¹VON ROSPATT, *ibid.*, p. 15.

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the length of which came to be equated with the duration of mental entities (or transient entities in general) as the briefest conceivable events.”⁹²

The Sautrāntika view of momentariness as lack of temporal persistence can be traced to Vasubandhu’s definition in the *Kośa*, as von Rospatt explains:

To be *kṣaṇika* (i.e. momentary), that is to be endowed with such a *kṣaṇa*, then entails according to Vasubandhu to perish immediately after having originated. Rather than defining *kṣaṇika* as “being of momentary duration,” Vasubandhu in this way specifies the nature of this momentary existence and thus excludes alternative conceptions such as that of the Sarvāstivādins.⁹³

The idea that a *kṣaṇa* has a certain fundamental thickness differing from a psychic addition⁹⁴ may hold true for the Sarvāstivāda view of momentariness, but is not borne out by Sautrāntika sources.

Von Rospatt enumerates five modes of deduction that the Sautrāntikas use in support of their doctrine of momentariness. The momentariness of mental entities (1) is one indication. The Sautrāntika also attempt (2) to infer the momentariness of all conditioned entities from the momentariness of the mind, and (3) to deduce momentariness from change and (4) destruction. Finally, they adduce (5) the experience of momentariness itself.

Presentism is a doctrine unique to the Sautrāntika school (and to Mind-Only, which inherited many Sautrāntika doctrines). It is not to be found in classical and medieval Western philosophy, with the exception of the Cyrenaic school.⁹⁵

Since Sautrāntika does not admit the existence of past and future entities, all that remains of the temporal sequence of past, present, and future is the principle of continuous, universal flux (*saṃtāna*)—a dynamic

⁹²VON ROSPATT, *ibid.*, p. 110.

⁹³VON ROSPATT, *ibid.*, pp. 106-107.

⁹⁴JASON BROWN, *Microgenesis and Buddhism: The Concept of Momentariness*. *Philosophy East and West*, 49 1999:3, p. 263.

⁹⁵JEFFREY GRUPP, *The R-theory of Time, or Replacement Presentism: The Buddhist Philosophy of Time*. *Indian International Journal of Buddhist Studies*, 6 2005, pp. 92–93.

but durationless “momentary now” or “eternal present” where phenomena are continuously in the process of arising or perishing, but never actually persist for any length of time whatsoever. The present moment is a “vanishing present”—both streaming and standing, like the Jamesian “specious present”⁹⁶ or Husserl’s “immanent temporality.”⁹⁷ Husserl writes that the subjectively constituted concreta arise from the immanent temporality as the lowermost streaming ground of concreteness.⁹⁸ The Sautrāntika theory of time may be conceived as a form of “replacement presentism,” as argued convincingly by Grupp.⁹⁹

It is important to emphasize that Sautrāntika not only rejects the existence of temporal continuants, but eliminates even instantaneous existence. Phenomena and elements (*dharmas*) can therefore never be found as complete existents in the present—one only ever finds their arising or perishing. Garfield points out that in Mādhyamika, even the domain of conventional phenomena cannot be resolved into constantly arising, constantly ceasing momentary phenomena that have inherent existence.¹⁰⁰ In contrast to this Nāgārjunian doctrine of total ineffability, the Sautrāntika system asserts a considerably more ontological view—that there is individual arising and ceasing of ultimates, although the individual entity is always in flux.

Space Unlike the Vaibhāṣikas, some Sautrāntikas do not regard the experiential constituent of phenomenal space (*ākāśa-dhātu*) as a substantial entity (*dravyasat*).¹⁰¹

The Sautrāntika view advanced by Vasubandhu in the *Kośa*, construes shape as a derivative property of color.¹⁰² As Sellars trenchantly observes, the notion of shape as existing only “by way of idea” is a Berkeleyan one.¹⁰³ But in Sautrāntika, not all spatial properties are conceptually imputed—e.g.

⁹⁶JAMES, cited in GRUPP, *ibid.*, p. 56.

⁹⁷GUPTA, *ibid.*, p. 173.

⁹⁸HUSSERL, *ibid.*, p. 66.

⁹⁹GRUPP, *Indian International Journal of Buddhist Studies* 6 [2005], *ibid.*, p. 53.

¹⁰⁰GARFIELD, *The Fundamental Wisdom*, *ibid.*, p. 274.

¹⁰¹MEJOR, *ibid.*, p. 31.

¹⁰²See BUESCHER, *ibid.*, p. 83 and STCHERBATSKY, *ibid.*, p. 11.

¹⁰³WILFRID SELLARS, *Kant’s Transcendental Idealism*. *Collections of Philosophy*, 6 1976
(URL: <http://www.ditext.com/sellars/kti.html>) – accessed on July 15, 2008.

distance is still held to be an ultimate. The account of *saṃsthāna* as purely a mental conception rather than a substantial and real property in the *Kośa* may be a possible precursor to Vasubandhu's argument against atomism,¹⁰⁴ as it shows the beginnings of a critique of space.

Aside from shape, the Sautrāntika are also beginning to whittle away at the spatial interval of the atomic interstice: "The Sarvastivadins–Vaibhasikas held the view that there are intervals between the atoms of the conglomeration, while the Sautrāntikas maintained that there are no intervals and yet the atoms do not touch each other."¹⁰⁵

One explanation would be that the Sautrāntika held this view chiefly for apologetic reasons. If they had declared outright that the atoms touch each other, they would have been dismissed as having the view of a non-Buddhist school, the Vaiśeṣika. This is the way Vasubandhu seems to deal with this issue in the *Kośa*. He argues that the Sautrāntika themselves admit that it amounts to as much as touching: "Quoting an authority, Bhadhanta, Vasubandhu says that although the atoms do not *touch*, when they are situated in the closest, gapless proximity we can say in words, 'they touched'."¹⁰⁶

Matilal advances the explanation that the Sautrāntika are claiming a potential or latent tangibility of the atoms which is actualized when they are in conglomeration, just as the latent visibility of individual atoms is actualized when they are perceived in aggregate.¹⁰⁷

A third explanation would be that Sautrāntika held the interstice between two atoms to be mathematically infinitesimal, in other words, smaller than any possible measure. This would account for their claim that atoms can have the seemingly contrary properties of not touching, yet not being separated.

Atom The Sautrāntika understanding of the two truths—the phenomenal (*saṃvṛti*) and the noumenal (*paramārtha*) truth—bears affinities to the

¹⁰⁴RICHARD KING, *Vijnaptimatratā and the Abhidharma Context of Early Yogacara*. Asian Philosophy March 1998.

¹⁰⁵GUENTHER, *Philosophy and Psychology in the Abhidharma*, *ibid.*, pp. 181–183.

¹⁰⁶MATILAL, *Perception*, *ibid.*, p. 362.

¹⁰⁷MATILAL, *ibid.*, p. 361.

Cartesian dualism of the 19th century, where the atom (*res extensa*) is the fundamental entity of the external world and sensation (*res cogitans*) are the fundamental entities of the internal world, i.e. the sensory minima brought about by the impingement of atoms upon the sensory organs. The external mosaic of atoms is connected to the inner world of perception by way of the sensation, the smallest physiological unit, which covers up but at the same time reveals the external world.¹⁰⁸

In Sautrāntika, the phenomenal or conventional truths are sensibles and the ultimate truths are intelligibles, i.e. the noumenal structures that are deduced to objectively back the perceptual flux of experience. The ultimate constituents of external objects are believed to be inferable from the “represented” forms in our awareness.¹⁰⁹ Atoms are momentary (*kṣaṇika*) and are given only to inference (*anumāna*) as purely logical constructs. We are led to deduce their existence by a causal inference, as the atomic data must have caused the gross appearance (*pratibhāsa*) in consciousness. But though this seems like an *a posteriori* reasoning at first glance, it is actually an *a priori* one. One is not drawing conclusions from the empirical to the empirical, but from the empirical to the noumenal. The atom is reasoned to be a necessary precondition to empirical knowledge.

Sautrāntika thought does not have a concept directly corresponding to the Kantian notion of *a priori*. But inasmuch as we are justified in reconstructing Sautrāntika along Kantian lines, the atom would have to be a wholly transcendental construct deriving from *a priori* consideration.

One supporting argument for the *a priori* interpretation is that the Sautrāntika atom is imperceptible *in principle*. In Sautrāntika, ultimate truths are *sui generis* and reachable only by transcendental reasoning, not by a decompositional analysis of empirical phenomena. The Tibetan doxographer Ngawang Belden offers the example that in Sautrāntika, a patch of blue is not established as a composite of external particles separate from the aspect of blue, nor is the aspect of blue a composite of external particles.¹¹⁰ The Vaibhāṣika atom, on the other hand, can at least in principle be isolated by

¹⁰⁸SOMMER, Evidenz im Augenblick, *ibid.*, p. 53.

¹⁰⁹MATILAL, Perception, *ibid.*, p. xiii.

¹¹⁰BUESCHER, *ibid.*, p. 129.

empirical decomposition. It is only too minute to be individually registered (though we have already discussed the problems with this view).

Sautrāntika epistemology has been compared to the representational realism of Locke.¹¹¹ Its atomic theory is also similar in many ways to the theory of Epicurus, who also adverts to a rationally apprehended world of atoms for causal explanations of the phenomena appearing in sensory awareness.¹¹²

Clearly, Sautrāntika resonates to a reasonable degree with Kantian critical realism, although the Buddhist and Kantian accounts differ considerably as to their forms of construction and categories.¹¹³

In the following, we will therefore pursue the Kantian line of interpretation and construe the Sautrāntika's inferential knowledge of the noumenal realm (*paramārtha-satya*) to have the form of necessary *a priori* posits—even though there are problems with this interpretation due to *anumāna* not having the proper technical meaning. The postulation of a necessary presupposition to knowledge would be *arthāpatti*, which is not among the Sautrāntika's allowable *pramāṇas*.

Why does the Sautrāntika system need atoms at all? The doctrine of atoms was carried over from Vaibhāṣika, just as the Vaibhāṣikas in turn had most likely inherited the doctrine from the Jainas and Vaiśeṣikas. Also, perhaps it was considered that appearances required a substance account of causal origination in order to avert the conclusion that they are being generated *ex nihilo*. Finally, if the Sautrāntika causal theory of perception (that mental representations are the effects of external objects) is to support an externalist reference of the intentional object (*viśaya*), it requires that there be objective causal vectors for effective action.

Mind (*citta*) in Sautrāntika moreover possesses the feature of *svasam-vedana* (self-reflexive awareness, i.e., transcendental apperception)—but in other key respects, it is not transcendental, as the moment-to-moment arising of mind is governed by empirical causality.

¹¹¹See SINHA, *ibid.*, p. 35 and DELLA SANTINA, *ibid.*

¹¹²PYLE, *ibid.*, p. 129.

¹¹³GUPTA, *ibid.*, p. 168.

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One difficulty with the Kantian analogy is that *dravya* does not conform to Kant's notion of substance. For Kant, the schema of substance is persistence through time, and we have already shown that Sautrāntika does not admit *dravya* to possess any temporal persistence whatsoever. The Sautrāntika concept of *dravya* would more accurately correspond to the Kantian notion of noumenon or *Ding an sich*, i.e. a thing as is apart from sensible or empirical intuition. But this reading, too, immediately breaks down, as the Sautrāntika atom is in flux, whereas the *Ding an sich* is atemporal.

Nonetheless, the existence of atoms, i.e. of intelligible simples, is given to reason by a kind of transcendental inference, as a merely empirical analysis would never suffice to establish atoms as the nonempirical objects which they are by definition intended to be. They comprise the flux of momentary atomic stimuli that causally induces tactile, visual, aural etc. sensations—from which, in turn, the mind synthesizes its phenomenal representations by way of a process of conceptual elaboration (*vikalpa*). In Sautrāntika thought, *vikalpa* generally assumes the rôle of synthesis, albeit an imaginatively contrived and therefore “unreal” one.

Also, if atoms are purely intelligible but not sensible, Sautrāntika must rigorously separate the category of substance into *rūpa* (variously construed as phenomenal materiality, *Gestalt*, or as the constituent of a perceptual datum which presents itself as objective)¹¹⁴ and *dravya* (the transcendently intuited substance, that which is inferred by transcendental reasoning to be the objective basis for perception). If a *dravyasat* lacks temporal persistence or sensible materiality, why even call it a substance? For an existent to be intelligible may mean no more and no less than that it is a logical posit, albeit a necessary and true one. But what remains unexplained is why such a logical datum should exist independently of its being posited.

2.5.2 Atomism in the Late Sautrāntika Phase

Gelug scholarship distinguishes between the Followers of Scripture and Followers of Reasoning.¹¹⁵ The late phase of Sautrāntika is known in the

¹¹⁴GUENTHER, *Philosophy and Psychology in the Abhidharma*, *ibid.*, p. 189.

¹¹⁵HOPKINS, *Maps of the Profound*, *ibid.*, p. 10-11.

Gelug doxography as the subschool of “Sautrāntika Following Reasoning.” This sub-division of the Sautrāntika school following the main system of Dignāga and Dharmakīrti postulates as its atomic entity the point-instant or unique, unanalyzable unrepeatable particular (*svalakṣaṇa*).¹¹⁶

Chatterjee characterizes the *svalakṣaṇa* as an “attributive atom,” which he holds to be the atom in its truest sense. Grupp translates the *svalakṣaṇa* as “abstract atom.”

Dharmakīrti’s *svalakṣaṇa* may be compared to Carnap’s concept of elementary experience (*Elementarerlebnis*) in that they both explode the stream of experience out into unanalyzable particulars.¹¹⁷ However, the similarity ends there. For Carnap, the *Elementarerlebnisse* are derived by an abstractive process (the procedure of quasianalysis) and employed as constitutional elements, not asserted as metaphysical realities. Atoms are products of abstraction—the stream of experience is not intrinsically atomized in this way.¹¹⁸ For Dharmakīrti, the *svalakṣaṇas* are the minimal concrete particulars or “givens” of perception that the real splits itself into. As Goodman points out, a system taking concreta as atomic cannot allow qualities as atomic parts of such concreta.¹¹⁹ This difficulty is resolved by the theory that phenomenal qualities are merely superimposed on the *svalakṣaṇas* as subjective constructions.¹²⁰ The *svalakṣaṇas* do not constitute anything, as is the case for the *Elementarerlebnisse* of Carnap’s system. Moreover, the Sautrāntika Following Reasoning assert these as external (mind-independent) objects,¹²¹ which Carnap does not.

The *svalakṣaṇa* nonetheless signals a final departure from the realism of the “substantive atom,” the latter being much closer to the common-sense view.¹²² The Sautrāntika system of Dignāga and Dharmakīrti postulates partless and extensionless naked particulars in a strictly instrumental fashion, as a provisional stepping-stone to the fully-fledged Yogācāra view. The

¹¹⁶MATILAL, Perception, *ibid.*, p. 366.

¹¹⁷MATILAL, *ibid.*, p. 358.

¹¹⁸CARNAP, Aufbau, *ibid.*, p. 93.

¹¹⁹NELSON GOODMAN, Ways of Worldmaking. Hackett Publishing Company, 1978, p. 9.

¹²⁰CHATTERJEE, *ibid.*, p. 63.

¹²¹HOPKINS, Maps of the Profound, *ibid.*, pp. 10–11.

¹²²CHATTERJEE, *ibid.*, p. 64.

“attributive atomism” is later in origin than Vasubandhu’s *Viṃśatikā* and is unaffected by his anti-atomist argument, for reasons that will be explained later.¹²³

However, there is by no means a unanimous consensus that Dharmakīrti divides time into infinitesimal or point-like instants. Oetke argues that this view is unproven, and that Dharmakīrti’s views on the structure of time (whatever they may be) have no bearing on his formal proofs of momentariness in the *Sattvānumāna*.¹²⁴

2.5.3 Critique of Sautrāntika Representationalism

Passing now to criticism, one difficulty with representationalism is that it does not fully accord with radical phenomenalism. The phenomenizing stance as expressed in the *Bahiya Sutta* would seem to demand a two-term or even a one-term account of perception. If in the seeing there is only the seen (etc.), then the perceived must be identified either with the representational aspect of perception (as is the case in *Vijñāptimātra*) or with the aggregate of the compositional constituents of perception (as in *Vaibhāṣika*)—it is not possible to have it both ways.

Chatterjee argues that the three-term theory is an unstable account of knowledge. Its correspondence theory of knowledge presupposes a presentative account, which, however, renders the correspondence theory superfluous.¹²⁵

Also, the novel Sautrāntika doctrines of evanescence and flux fit poorly with the doctrine of atomism inherited from the Sarvāstivāda tradition. The Sautrāntika have some difficulties in reconciling atomicity to flux, as the discrete nature of atoms would seem to break the continuity implied by absolute flux.¹²⁶

If the doctrine of momentariness is made to apply to atoms, as it must be, then the atom ceases to be a static entity and becomes a wholly dynamic

¹²³Viz. section 3.2.6, p. 103.

¹²⁴CLAUS OETKE; ERNST STEINKELLNER, editor, *Bemerkungen zur Buddhistischen Doktrin der Momentanheit des Seienden: Dharmakīrtis Sattvānumāna*. Arbeitskreis für Tibetische und Buddhistische Studien, 1993, pp. 22–23.

¹²⁵CHATTERJEE, *ibid.*, p. 55.

¹²⁶BROWN, *ibid.*, p. 273.

stimulus. It flashes into and out of existence, but does not actually persist for even the most infinitesimal moment. To use a mathematical metaphor, the atom's process of arising and perishing might be compared to a Cauchy sequence which, though converging in the reals, fails to converge in the rationals. Despite approaching an *ideal* limit (the idealization of the atom *qua* static existent) there is never in fact any such static entity to be found at any point of time during the atom's process of *real* arising and perishing.¹²⁷

In this reconstructively purified Sautrāntika view, flux and atomism are reconciled in the concept of the atom as a fundamental flux–unit, a discrete pulse of effective action (not unlike the quantum of modern physics). As a key rationale for their radical dynamization of the atomic concept, the Sautrāntika offer that a static entity is by definition incapable of acting.

Vasubandhu points out that the dynamic, instantaneous nature of the atom–stimulus poses a severe difficulty for the Sautrāntika's causal account of perception—by the time the percept, i.e. the representation is registered in awareness, the stimuli that have caused it have already evanesced. Under the assumption of an externalist, i.e. a correspondence theory of representation, the percept comes to be a representation of the unreal. However, if one is willing to revert to internalism to preserve the veridicality of the representation, then why not also adopt an internalist account of causation and dispense with the noumenal object? The internalist account of reference and knowledge is simply good empiricism, as Vasubandhu might aver. A coherent account of perception does not require external bases of knowledge (*ālambanas*). This will be the nucleus of his argument against the causal theory of perception in verse **16** of the *Viṃśatikā*.

Although the early Sautrāntika epistemology is already remarkably advanced, we still find in it some vestigial notions inherited from the Vaibhāṣika direct realism, such that these discrete pulses must possess definite spatio-temporal locations. As we will later see, all of these notions are to become the object of Vasubandhu's critique of atomism. However, in early Sautrāntika we also find notions proper to critical realism, such that the discrete pulses

¹²⁷As is also the case with Kant and Carnap, the Sautrāntika system may be said to take time as its norm of categories, see CHATTERJEE, *ibid.*, p. 65 and WILHELM K. ESSLER, JOACHIM LABUDE and STEFANIE UCSNAY, *Theorie und Erfahrung*. Alber, 2000, p. 135.

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are momentary stimulus–atoms which are themselves imperceptible, but produce percepts by impinging upon the sensory faculty. In the late Sautrāntika of Dignāga and Dharmakīrti, the corpuscular concept is done away with—finally the atomist doctrine, now fully purged of all substantialist vestiges, has matured into “attributive atomism.”

Thus, we can reconstruct the evolution of the atomic concept in the Abhidharmika schools along roughly the following lines: In the Vaibhāṣika presentational theory of knowledge, the atom is a physical sensation–atom or trope, i.e. a discrete, particular instance of a sensory quality. In early Sautrāntika representationalism, although the atom’s noumenal substantiality has not been eliminated entirely, it is hidden from phenomenal perception. What was formerly a sensation–atom or unitary *sensum* is now a discrete sensory stimulus, the necessary existence of which is deduced by (transcendental) inference.

The Abhidharmic reductionism attempts to epistemologize the early Buddhist teaching of the phenomenistic elimination of references to self and subjectivity by reducing the physical world described by ordinary language of covering truth (*saṃvṛti-satya*) to the purely phenomenal world described by the sense–datum language of ultimate truth (*paramārtha-satya*). But whether this program actually plays out as intended is another question. In a parallel to Quine’s classic critique of reductionism as set forth in *Two Dogmas of Empiricism*,¹²⁸ Oetke strongly argues that this phenomenizing reduction of ordinary experience to “protocol language” is infeasible.¹²⁹

Moreover, the Abhidharmic theory of synthetic wholes as purely nominal entities raises the possibility of similarly nominalizing the parts. Saying that the whole is a synthesis (*vikalpa*) superimposed on the parts by purely subjective constructive imagination (*kalpanā*) bears the risk of reverting into idealism, because it might be that the subjectivity is constructive enough to posit the parts as well.¹³⁰

¹²⁸ WILLARD VAN ORMAN QUINE, *Two Dogmas of Empiricism*. in: *From a Logical Point of View: Nine Logico-Philosophical Essays*. Harvard University Press, 1971.

¹²⁹ OETKE, “Ich” und das Ich, *ibid.*, 236–237.

¹³⁰ CHATTERJEE, *ibid.*, p. 72.

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In fact, this will be the thrust of Vasubandhu's argument in the coming chapter. He will argue that the hypothesis of transcendentally objective atoms is unwarranted and superfluous. This, he will say, is firstly because the gross appearance (*pratibhāsa*) is all that is required for empirical purposes, and secondly, because it is not proven that we constitute perception of gross physical objects from transcendentally objective atoms given in experience.

The example of Sautrāntika illustrates an Avenarian point—any empiricism made aware of its *a priori* foundations but insisting on realism inevitably produces a characteristic diplopia of inner experience and outer reality, which raises the problem of how these two realms interrelate.

There are two very closely related modes of thought that attempt to resolve the bifurcation of internal and external world that Avenarius famously problematized as “introjection”—phenomenalizing idealism (the route taken by Vasubandhu) and empiriocriticism—the new turn of Mach and Avenarius after Kantian critical realism which reasons against the metempirical status of the synthetic *a priori*.

3 The Anti-Atomist Métaphysics of Vijñāptimātra

I once heard the question seriously discussed, “How the perception of a large tree could find room in the little head of a man?”

(Ernst Mach)

THE TASK CUT OUT for this chapter will be to argue, by conducting a detailed analysis of the relevant arguments in verses **11–16** of the *Vijñāptikā*, that Vasubandhu really did intend his refutation of the external object to operate as a critique of transcendental objectivity. In other words, by undercutting the epistemic justification of the metaphysical realist’s existence claims for such putatively external objects, he aims to demonstrate that the existence of objects ontologically independent from our own mental representations is not established.

Some modern revisionists regard Mind-Only epistemology as a phenomenological realism that focuses its attention on the flux of experience and chooses not to concern itself with metaphysicalities. It is entirely correct to point out that for Mind-Only, things-in-themselves are philosophically gratuitous. In point of fact, Mind-Only generally refrains from engaging in ontological theorizing. Yet this minimal analysis does not go nearly far enough—for if a philosophical position which is non-materialistic, excludes all extramental elements from the constitution of experience, insists on viewing the world strictly in epistemological terms, and maintains that experience of the given moment is noematically constituted *solely* by the generative activity of transcendental subjectivity does not deserve the label of idealism, then what does?

Any reading of Vasubandhu’s argument against atomism will inevitably be influenced by one’s expectations about the position that he is attempt-

ing to establish. A critical review of some of the more popular interpretations of Mind-Only will help to triangulate the epistemological intent of Vasubandhu's argument and set our prochronistic parallels to empirio-criticism on a firmer footing.

The Vijñāptimātra eliminates the object term of the three-term theory of perception advanced by Sautrāntika and returns to a two-term theory of perception. However, it does not quite come out to direct realism, as Mind-Only bars all epistemological means of access to the noumenal realm (*paramārtha-satya*). It confines ordinary perception (*pratyakṣa*) and reasoning (*anumāna*) to the egological sandbox of the conceptually constructed nature of experience (*parikalpita-svabhāva*).

3.1 Readings of Mind-Only

When discussing the Vijñāptimātra school, it is useful to keep three distinctions in mind—(1) the schools “Following Scripture” and “Following Reasoning,” (2) the Nālandā and the Valabhī schools, and (3) the True and False Aspectarian readings.

Tibetan doxography distinguishes the Yogācāra of Asaṅga and Vasubandhu (“Following Scripture”) from the later school of Dignāga and Dharmakīrti. (Following Reasoning). In this exposition, we will unfortunately have to restrict ourselves to a discussion of the doctrine of Vasubandhu—the logico-epistemological idealism of Dignāga and Dharmakīrti will be largely kept out of consideration, as will the Sino-Japanese reception history of the Mind-Only school.

Within the schools of interpretation that evolved from the early Yogācāra of Asaṅga and Vasubandhu, we must distinguish the Nālandā school, most prominently represented by Dharmapāla, and the Valabhī school, represented by Sthiramati.¹ There are several notable differences in interpretation between these two schools, of which we will mention only one—the ontological status of the mental representation in terms of the Yogācāra three-nature model. For Sthiramati, the aspect (*akāra*) or noema is relegated

¹ERICH FRAUWALLNER, *Die Philosophie des Buddhismus*. Akademie-Verlag, 1969, pp. 396ff.

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to the conceptually constructed (*parikalpita*) nature of experience, whereas Dharmapāla holds it to be a part of the other–dependent (*paratantra*) nature. In according to the *akāra* a causally effective mental reality that is not imaginary conceptual construction, the Nālandā school comes to be much closer to a Berkeleyan idealism than the Valabhī school, for which the *akāra* is unreal, and ultimately seen to “dissolve” back into the interdependent functional flux of the *paratantra* nature.²

The third distinction, the distinction between True and False Aspectarianism as drawn by Tibetan doxography, will be covered later when we review the traditional interpretation of Cittamātra.

3.1.1 Revisionist Interpretations of Mind–Only

The revisionist line of interpretation generally insists on reading Mind–Only *not* as metaphysical idealism. Rather, it is held to be a phenomenologically oriented species of pluralist realism. Instead of being concerned with the way things are *qua* metaphysical realities, all that matters to Yogācāra is the way phenomena are perceptually and mentally constituted. It is in other words an attempt to reformulate the basic program of Buddhist empiricism in terms of a comprehensive phenomenological analysis of the activities of the mind. If it is to be considered idealism at all, it is at best a form of epistemological, but certainly not of ontological idealism.

The most influential modern proponents of this phenomenological interpretation are WAYMAN, ANACKER, KING and LUSTHAUS. Some revisionist scholars claim that Yogācāra accepts an external world and urge a critical realist interpretation (notably WAYMAN and KOCHUMUTTOM).

Wayman Wayman alleges that the proponents of the idealist interpretation support their thesis by a selective reading of the textual evidence, bending statements that indicate Yogācārin belief in objective *rūpas* (forms) and other mind–independent elements.³ But under the premise that Cittamātra is not an entirely fresh creation, but in many respects an evolution of an

²In this soteriological state, experience is said to shine forth under the transcendently void aspect of the perfected (*pariniṣpanna*) nature.

³ALEX WAYMAN, *The Yogācāra Idealism*. Philosophy East and West, 15 1965, p. 65.

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earlier critical realist scholastic system of the Sautrāntika, it shouldn't be surprising to find that it still preserves many overtly realist elements that have not yet been reformulated or reinterpreted to fully harmonize with idealism. Given the nature of Mind–Only as a major locus of synthesis for Buddhist philosophical doctrine, it would in any case unreasonable to assume that Cittamātra positions are always univocal. It is only natural for the overarching exegetical theme of idealism to be unraveled into a kaleidoscopic multiplicity of perspectives upon closer and more critical readings of the text. A deconstructive hermeneutic uses exegetical themes as prisms for fracturing the text and opening up its inner interpretive space for many meanings old and new. One has to wonder whether a project like Wayman's which seems to pursue the hermeneutically rather naïve goal of uncovering the hitherto hidden "true meaning" of a text really deserves the compliment of revisionism.

Wayman is not alone in giving a strongly critical realist rendering of Cittamātra—Lindstrom, for example, even goes so far as to make the remarkable assertion that the point of Yogācāra "is in fact to assert, not deny, 'the mind–independence of the material sphere.'"⁴

I will attempt to show, by a rational reconstruction of Vasubandhu's argument against atomism derived from the internal evidence of the text, that quite the opposite is true. Moreover, it is reasonable to construe Mind–Only as a species of idealism on the external evidence of the arguments that its Advaitin and Mādhyamika critics have lined up against it. One may of course always argue that the historical critics of Mind–Only have universally misconstrued it, but this amounts to contending that only a proponent of Mind–Only can understand the system well enough to properly critique it. This argument can safely be dismissed.

Lusthaus Lusthaus insists that the mainline ontological idealist reading of Yogācāra is predicated on a fundamental misinterpretation of the term *viññāpti-mātra*. He argues that correct interpretation implies no more than

⁴JEFF LINDSTROM, *Imaginations of the Unreal: Modern Interpretations of Yogacara's "Idealism"*. 2002 (URL: http://individual.utoronto.ca/jlindstrom/coursework/yogacara_essay_2001_12_19.htm) – accessed on July 10, 2008.

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a realist phenomenology, the idealist features of which are confined to a strictly epistemological sense—in other words, any ontological sense of the term is precluded:

Why has Yogācāra been misinterpreted as idealism? The common way of interpreting *mātra* so as to valorize ‘consciousness’ is striking since those same interpretors never impute such implications to *mātra* on the many other occasions it is used by Buddhists or Yogācārins. For instance, the closely allied term *prajñāpti-mātra* (“only nominally real”) has never led a modern interpretor to speculate that Language is the metaphysical reality behind the world of experience; on the contrary, those prone to idealist interpretations tend to privilege ineffability and yearn for a realm beyond language and conceptions.⁵

Naturally, since anybody would agree that the term “only nominally real” doesn’t indicate that language is the metaphysical reality behind the world of experience, Lusthaus wants us to agree, *mutatis mutandis*, that *vijñāpti-mātra* (in his words, “nothing but noetic constitution”) doesn’t indicate noetic constitution to be a metaphysical reality behind the world of experience. By this analogy, he wants us to believe that an ontological reading of the term *vijñāpti-mātra* is wildly implausible.

But in order for this analogy to carry his argument, Lusthaus relies on a deliberately misleading implication. The fact that unless we are specifically discussing nominalism about propositions, we typically don’t take the term “only nominally real” to be making a metaphysical proposition about *language* has nothing to do with the fact that we may very well believe it to be making a metaphysical statement about the relationship of *language* and *object*. If we say, for example, that a tree is only nominally real, we are obviously talking about the *referent* of the term “tree,” not about the *term* “tree.” Not to belabor the issue *ad nauseam*, but given that the desire to minimize or eliminate ontological commitments is such a crucial philosophical motivation

⁵DAN LUSTHAUS, The Crux of the Yogacara Project. August 2004 (URL: <http://www.bu.edu/religion/faculty/bios/Lusthaus/yogacara\%20crux.pdf>) – accessed on July 3, 2008.

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of nominalism, if we all of a sudden make out “nominalism talk” to be about something other than ontology, then there isn’t much left for it to be talking about!

Lusthaus is right to point out the importance of epistemological idealism. But is he really justified in ruling out ontological readings of *vijñāpti-mātra*? Perhaps he is—if, somewhere, he offers a better argument for it than the one we have just discussed.

One can certainly credit Mind–Only epistemology with the *intent* to be non-metaphysical. Carnap makes the perspicacious observation that realist, idealist and phenomenalist epistemologies coincide to the extent that their constitution theories of experience are ontologically neutral.⁶ This observation can help lay to rest a large portion of the perennial vexation about whether Mind–Only is realism or idealism or phenomenism—to the extent that it happens to be non-metaphysical, all three terms equally apply.

Therefore, we have no doubt that Lusthaus is on to something important about Mind–Only. Also, we are not disputing anything that Lusthaus has to say about its Sino–Japanese history of reception. But what if Vasubandhu’s position in the *Viṃśatikā* does, after all, lapse at some point into metaphysics? This is in fact what Cittamātra’s Indian and Tibetan Mādhyamika critics oppugn it for.⁷ Should we ever catch such a lapse, it would come as no surprise to find that it is an idealist one. If epistemological idealism refuses to let its metaphysics in through the front door, it may simply enter through the back.

Some scholars conjecture that the early phase of Yogācāra was mainly phenomenological in orientation, whereas its later developments came to be more ontological. Nagao, for example, notes that the early Yogācāra of the Asaṅga–Vasubandhu era considered the question of an external reality to be a problem of the realist’s ontology, and thus, a problem which was not their concern.⁸ However, it would be a mistake to conclude that they therefore desisted from external world skepticism.

⁶CARNAP, *Aufbau*, *ibid.*, pp. 249–250.

⁷Viz. section 4.1, p. 115.

⁸NAGAO, *ibid.*, p. 187.

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Lusthaus is more circumspect about the issue of the external world than Kochumuttom. He hedges his bets—while he does not actually say outright that he believes Mind–Only to be critical realism, he conveys this opinion obliquely: “To the extent that epistemological idealists can also be critical realists, Yogācāra may be deemed a type of epistemological idealism . . .”⁹

Against the view of Lusthaus, I am arguing that the intent of Vasubandhu’s refutation of atomism is not compatible with critical realism—since if the transcendental object is bracketed out of the constitution of experience, critical realism is left behind for good. But as Kant recognized, this is a dangerous philosophical move to make. An epistemological idealism without an objective world cannot hold the middle ground and is inexorably pulled towards an ontological idealism. Once we lose the solid transcendental seabed on which to drop our “reality anchors,” our world of experience becomes driftwood on the deep of idealism—or to use a more empiricist figure of speech, we become sailors on Neurath’s raft.¹⁰

But the *Viṃśatikā* has several levels of meaning. Vasubandhu’s soteriological subtext is that once we wake up to the fact that we are empirical explorers floating on *Kon Tiki*, we should steer the raft towards the farther shore. The anagogic reason why the *Viṃśatikā* is force-feeding the realist with the epistemological idealism of Cartesian *epoché* is to lead him even further into skepticism—not because it wants to take a last stand on any kind of idealism. However, if the indication of being prone to idealist interpretations of Cittamātra is to “privilege ineffability and yearn for a realm beyond language and conceptions,” as Lusthaus alleges, then surely, Vasubandhu the mystic stands guilty as accused.

Kochumuttom In Kochumuttom, we find a very systematic and generally quite convincing Kantian revisionist reading of Vasubandhu. He makes the argument that Vasubandhu does not deny the noumenon or *Ding an sich* outright, but merely claims that it can never be directly given in experience unless in the condition of enlightenment.¹¹ Generally speaking, this is a per-

⁹LUSTHAUS, *ibid.*, p. 2.

¹⁰ESSLER, LABUDE and UCSNAY, *ibid.*, p. 27.

¹¹KOCHUMUTTOM, *ibid.*, pp. 118–119.

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fectly accurate interpretation, but what this really boils down to upon closer examination is that Vasubandhu is a critical realist only in the soteriological sense. There can be no doubt that Vasubandhu believes in an ineffable noumenal nature (*anābhilāpya-ātma*) beyond phenomenal experience—the true nature of minds known to the enlightened ones.¹² But first of all, if this is Vasubandhu’s noumenon, it is nothing like a Kantian idea of pure reason. The only rationale for calling it a noumenon is that Vasubandhu avers it to be beyond ordinary experience. Because it is beyond knowing as we know it, it does not supply any kind of ontological or epistemic grounding, nor can it be rationally intuited. Vasubandhu already shows his true colors in verse 1 of the *Viṃśatikā*, where he likens the perception of external objects to seeing cataract-hairs. He is trying to communicate that all the while, we are staring into the face of the ineffable noumenon, but simply fail to realize it because we are ignorantly fixated on the obscurations of ordinary experience. This example goes to show in the context of a Mahāyāna mysticism in full bloom, Vasubandhu’s belief in an ineffable noumenon is insufficient to establish that he is a critical realist when it comes to the epistemology of ordinary experience—in fact, it establishes the very opposite.

Let us examine what Kochumuttom has to say about Vasubandhu’s argument against atomism:

Nowhere during the discussion does he say that there is no extra-mental world. Instead he has thrice said that “an atom is not obtained”. The term translated here as ‘is obtained’ is *sidhyati*. To be sure, this term does not mean ‘to exist’ (*asti*). Therefore, to translate the above sentence as “an atom does not exist” would be a gross mistake. The usual meanings of the term *sidhyati* are ‘to be obtained (in experience),’ ‘to be given (in experience)’ or ‘to be proved to be true’ etc. So Vasubandhu’s main criticism against the atomic realism is that the atoms are neither given in experience nor proved. Therefore he does not really say that there are no atoms at all, although he is not prepared to admit

¹²In Mahāyāna terminology, the *anābhilāpya-ātma* is more or less synonymous with *śūnyatā*, see CHANDRADHAR SHARMA, *A Critical Survey of Indian Philosophy*. Motilal Banarsidass, 2000, p. 86.

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that things–in–themselves which are ineffable, could be conceived in terms of atoms.¹³

There isn't much to find fault with in this discussion. It shows that Vasubandhu is rightly very wary of making metaphysical assertions involving the existence or nonexistence of objects beyond phenomenal experience. All he says—and all he needs to say—is that atoms are neither given in phenomenal experience nor proven to constitute experience.

However, if it is really true that Vasubandhu may read as accepting non-atomic *Dinge an sich* in the Kantian sense, something is conspicuously missing from Kochumuttom's interpretation. Why doesn't Kochumuttom supply a reasoning that establishes the necessity for Vasubandhu of something transcendentally objective as the condition for the function of the categories (such as is done by Kant in his thesis of the second antinomy of pure reason)? The conclusion to be drawn from this question is that if Kochumuttom doesn't have any such reasoning to show, then there simply isn't anything to be shown.

Additionally, there is a systematic difficulty with Kochumuttom's reading of Cittamātra as a variation on Kantian critical realism. If Vijñānavāda and Sautrāntika are both critical realisms, then what exactly does Vasubandhu stand to gain by refuting the Sautrāntika theory of perception in the *Viṃśatikā*?

The fact that Kochumuttom cannot sufficiently substantiate the necessity to Vasubandhu's epistemology of the *Ding an sich* despite that Vasubandhu's reasoning is generally Kantian is a key justification of the empiriocriticist reading we are attempting here. Kochumuttom agrees that Vasubandhu neither affirms nor denies the existence of mind-independent atoms in an ontological sense. This is reason to conclude that Vasubandhu is developing the Vijñāptimātra epistemology in Cartesian *epoché*.

3.1.2 The Traditional Interpretation of Cittamātra

According to the traditional line of interpretation, Cittamātra is metaphysical subjective idealism. The view that the goal of the *Viṃśatikā* is

¹³KOCHUMUTTOM, *ibid.*, pp. 179–180.

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to deny the existence of a mind–independent external world is backed more or less uniformly by the classical Indian and Tibetan commentarial traditions (see e.g. HOPKINS, BLUMENTHAL, or ŚĀNTARAKṢITA), and by many modern scholars such as WOOD, TOLA and DRAGONETTI, CHATTERJEE, GUPTA, MATILAL and NAGAO.¹⁴

Arnold points out that Yogācāra has reduced the Abhidharmika list of categories to mental events,¹⁵ which may be taken as an indication of a Yogācāra view that the mind is epistemically prior to the psycho–physical complex of experience. If it weren't for the mind, in other words, there would be no sort of experience whatsoever. Wood, as we have already seen, argues that the Mind Only Principle frames Cittamātra as a species of ontological idealism.¹⁶ Matilal contends that Yogācāra idealism sets out to demonstrate the inconsistency of the realist account of the external world.¹⁷

Tibetan doxography unanimously reads Cittamātra as a critical refinement of Sautrāntika which purifies it of the extraneous and self–contradictory category of the external object. As Mipham states: “The Sautrantikas, who assert the theory of the mental aspect, are like the Chittamatrins. The sole difference lies in the assertion or denial of the existence of the external object.”¹⁸ Furthermore, the Mind–Only view resembles Sautrāntika in accepting their doctrine of momentariness.

On this understanding, the Cittamātrin reveals himself to be a Sautrāntika who comes to realize that he has been cast out of the phenomenalist garden of Eden into the physical world for having eaten of the forbidden fruit of metaphysical realism. Vasubandhu's offensive against the external object (*bāhyārtha*) is an attempt to rectify this situation by ejecting the *Ding an sich* from the epistemological constitution of experience.

King argues that the “phenomenalism” of the Yogācāra school is clearly in conflict with the Sautrāntika epistemology about the issue of being able

¹⁴See e.g. GUPTA, *ibid.*, p. 72.

¹⁵DAN ARNOLD, *Madhyamaka*. in: *Internet Encyclopedia of Philosophy*. (URL: <http://www.iep.utm.edu>) – accessed on April 12, 2008.

¹⁶WOOD, *Mind Only*, *ibid.*, pp. 171–172.

¹⁷MATILAL, *Perception*, *ibid.*, pp. 359–360.

¹⁸CANDRAKĪRTI, *ibid.*, pp. 196–197.

to make veridical statements about a mind–independent external world.¹⁹ We will later return to this point of conflict and argue it more strongly—the attack on Sautrāntika externalism is in fact one of the centerpieces of the *Viṃśatikā*’s philosophical program.

3.1.3 Distinguishing True and False Aspectarianism

In Indian philosophy of mind, the debate between idealism and realism revolves around the issue of whether consciousness is formless or has a form. Realistic theories (such as those of the Nyāya and Mīmāṃsā schools) generally hold that consciousness is formless, whereas idealistic theories (such as Mind–Only) generally argue that consciousness has a form. This theory of the mind provides justification for their thesis that external objects are forms of consciousness.²⁰ In an attempt to get a better philosophical grip on the the precise sense in which the Mind–Only view denies external objects, we find this debate between idealism and realism being carried out even within Mind–Only, where it centers on whether the sensible forms or aspects of consciousness are true or false.²¹

The True and False Aspectarian views differ as to how far they press the skeptical assault on ordinary experience. Nonetheless, they are in agreement in maintaining that if one subjects ordinary experience to a transcendental analysis, one will discover what seemed at first to be the external world and its objects to be mere mental representation (*viññāpti-mātra*) lacking extra–mental referents. They both assert (in slightly different ways), that phenomena are mere conceptual imputations (*prajñāptisat*) lacking substantial existence (*dravyasat*). However, according to Gelug doxography, both True and False Aspectarian views assert phenomena to be established as the substantial entity of the mind.²² Tsongkhapa attempts to resolve this discrepancy by arguing that because the Mind–Only sense of the term *prajñāptisat* is less rarefied than the Mādhyamika sense,²³ the Mind–Only

¹⁹KING, *Asian Philosophy* 1998, *ibid.*

²⁰GUPTA, *ibid.*, p. 45.

²¹See HOPKINS, *Maps of the Profound*, *ibid.*, pp. 415ff.

²²HOPKINS, *ibid.*, p. 416.

²³Cf. section 4.1, p. 114.

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view is realized under more subtle Mādhyamika analysis to entail substantial establishment as mind.²⁴ We may think of such hermeneutic maneuvers as we wish, but they do underscore the necessity of carefully distinguishing the assertions made *by* a given philosophical system from meta–philosophical *interpretations* of these assertions—which is admittedly usually much easier said than done.

True Aspectarianism This interpretation of Mind–Only as “realistic idealism” denies external objects transcendentally but accepts them on an empirical level, i.e. as conventional/pragmatic truth. Following the Kantian distinction of transcendental and empirical externality, True Aspectarianism denies the transcendental externality or substantiality (*dravyatva*) but not the empirical externality of objects (i.e. their *rūpa*), or their spatiotemporal determinacy (*niyama*). Their supposed externality is illusory in a strictly transcendental sense—but not, however, in an empirical sense. True Aspectarianism is roughly what Kant’s transcendental idealism would amount to without the *Ding an sich*.

The True Aspectarian position entails a rejection only of *dravya*, not of *rūpa*. The concept of *rūpa* may perhaps be best understood under a phenomenological reading as *hylé* or material *Gestalt* of perception,²⁵ whereas *dravya* is a metaphysical term signifying transcendently objective substance.

True Aspectarianism is still foundationalist because it holds that statements about sense–data (e.g. observations) do not require justification. It adopts an idealist position with regard to transcendental reality but a phenomenalist empiricism with regard to empirical reality: “The Yogācāra is an idealist only transcendentally; in empirical matters he has no quarrel with the realist. All philosophical issues lie between the conflicting interpretations of the facts and not the facts themselves.”²⁶

²⁴JEFFREY HOPKINS, Absorption in No External World: 170 Issues in Mind Only Buddhism (Dynamic Responses to Dzong-Ka-Ba’s the Essence of Eloquence). Snow Lion Publications, 2006, pp. 311–312.

²⁵GUENTHER, Philosophy and Psychology in the Abhidharma, *ibid.*, p. 189.

²⁶CHATTERJEE, *ibid.*, p. 74.

False Aspectarianism The “anti-realist idealism” of the False Aspectarian reading radicalizes the Cartesian skepticism of the True Aspectarian view in holding the external object to be illusory even in the empirical sense. It surrenders the last remnants of realism about the external world to skeptical doubt in rejecting the typical notion of traditional sense–datum theory that raw sensations are incontrovertible. Even the qualia themselves (e.g. the perception of blue as blue) are held to be polluted with innate ignorance (*avidya*).²⁷ The desired rock–bottom certainty is to be reached not in sense–data or evidence, but only in the pure self–reflexive apperception. In contesting even the validity of empirical evidence, False Aspectarianism no longer qualifies as phenomenalism *sensu stricto*.

The False Aspectarian position that all perception—true to the spirit of Brentano’s famous dictum “Wahrnehmung ist Falschnehmung”—is *tout court* erroneous is closer to the position of the Mādhyamikas and Advaitins, who both regard awareness as formless (*nirakāra*) in and of itself. False Aspectarianism is a case in point that the formlessness of consciousness need not entail realism about external objects—it can just as well lead to a radically fictionalist view.

Regarding the nature of the mind, False Aspectarianism is much closer to the Advaita position, as in False Aspectarian interpretation, “raw feels” are mistaken and “consciousness is ultimately clear like a crystal.” The false aspects are extrinsic to self–awareness, which is in itself aspectless, veridical and nondually self–knowing.²⁸ The False Aspectarian view gravitates even further in the direction of transcendental subjectivity, as it is not the transcendent, egoless and pure subjectivity that infects the mind with mistaken qualia, but the egological consciousness.

The False Aspectarian anti–realism about sense–data is partially vindicated by findings of contemporary psychophysics. For example, Pinker points out that outdoors, a lump of coal reflects more light than does a snowball does indoors. The absolute luminance of the “black” lump of coal is higher

²⁷HOPKINS, *Maps of the Profound*, *ibid.*, p. 418.

²⁸JAMES BLUMENTHAL, *The Ornament of the Middle Way: A study of the Madhyamaka Thought of Santaraksita*. Snow Lion Publications, 2004, p. 187. This view is epitomized by the crystal simile of consciousness presented in the *Samdhinirmocana Sūtra*, see NAGAO, *ibid.*, p. 72.

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than the “white” snowball. Nonetheless, the coal is seen as black and the snowball is seen as white, because our visual system determines the lightness of an object by its relative luminance, i.e. it takes into account the luminance of its surroundings.²⁹ On a similar note, Mach observes that a bright surface seems brighter next to a dark surface than next to one brighter than itself.³⁰ Thus, although perceived qualities such as color and brightness seem to be absolute and independent, they are actually influenced by their surroundings.

In the exposition *Madhyamakālaṃkāra (Ornament of the Middle Way)*, Śāntarakṣita critiques the False Aspectarian view, arguing that it is fraught with inconsistencies.³¹ However, it is admitted that in its assessment that the phenomenal qualia are ungrounded, the False Aspectarian position better approximates Mādhyamika than the True Aspectarian interpretation.³²

According to Tsongkhapa, the True and False Aspectarian positions boil down to being different ways of reading Cittamātra texts, i.e. the *Viṃśatikā* and other Mind–Only *śāstras* potentially allow for both a True Aspectarian and a False Aspectarian interpretation.³³ While it is tempting to categorize the Nālandā school as True and the Valabhī school as False Aspectarian, Tibetan doxographers don’t classify them along those lines. In fact, they seem to allow that Nālandā as well as Valabhī school texts can be read both ways.

Vasubandhu’s Aspect—True or False? Is the Vasubandhu of the *Viṃśatikā* a True or a False Aspectarian? Possibly neither—if our hypothesis that the doctrine of Mind–Only is only an interim position is true.³⁴ In his argument against solipsism in **21**, he concludes that since

²⁹PINKER, *ibid.*, pp. 7–8.

³⁰MACH, *ibid.*, p. 8.

³¹See the discussion of the eight absurda of False Aspectarianism in BLUMENTHAL, *ibid.*, pp. 127–134, also the analysis of the absurda in ŚĀNTARAKṢITA and MIPHAM, *ibid.*, pp. 246–261. Unfortunately, the topic is too complex to review here—we will have to leave it at Mipham’s exhortation that “there is nothing more important than these arguments in the whole of Shantarakshita’s system.”

³²ŚĀNTARAKṢITA and MIPHAM, *ibid.*, p. 249.

³³HOPKINS, *Maps of the Profound*, *ibid.*, p. 311.

³⁴This reading of Vasubandhu is (more or less) along the lines of Śāntarakṣita’s Yogācāra–Mādhyamika synthesis to the effect that True Aspectarian Cittamātra is the correct

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one knows other minds as one knows one's own—under the influence of *avidya*—one cannot have direct knowledge of one's own mind. This arguably rules out the possibility of the transcendental subjectivity knowing itself in self-reflexive awareness or by any *a priori* means.³⁵ Here Vasubandhu is fighting fire with fire. Having closed the escape route to metaphysical realism, Vasubandhu urges that the Cartesian *epoché* with its unpalatable consequence of solipsism (as either subjective or absolute idealism) can only be broken by an even stronger skeptical *epoché*. In other words, he is implicitly submitting *sūnyatā* for consideration. If Vasubandhu really intends to complete the *Viṃśatikā* on a note of absolute skepticism—and I think he does—then this vanishing point of the text is where its reading must be projected from in order to make sense.

But in order to lead his realist interlocutor to the vanishing point, Vasubandhu must first trap him under the bell jar of Cartesian *epoché*. This, then, is the philosophical task that Vasubandhu has cut out for himself in his argument against atomism.

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Mereological nihilism claims that wholes themselves do not exist, only their constitutive elementary parts. Vasubandhu now takes the Buddhist ultra-nominalism to its logical conclusion in repudiating even the elementary parts. The argument is a fundamental critique of realist conceptions of the part-whole relation. In his *Kośa* auto-commentary, Vasubandhu has pressed the Sautrāntika critique of least-part substances persisting in time as far as possible. Now, in a change of tack, he brings under fire the notion of substances extended in space.

view of empirical truth (*saṃvṛti-satya*) and Mādhyamika is the view of the ultimate truth (*paramārtha-satya*).

³⁵Neither does Mach believe in privileged access to one's own mind and sensations—he writes that he does not draw any essential distinction between his own sensations and those of others (MACH, *ibid.*, p. 294). His suggested solution to the other minds problem is that since all knowledge of sensations is empirical, there is no metaphysical divide between self and others. Mach and Vasubandhu are in agreement about the facts of the matter and differ only as to the interpretation. To Mach, the situation is life as usual—to Vasubandhu, it is an existential wake-up call.

Schmithausen points out that *Viṃśatikā* contains modes of expression which betray an unmistakable Sautrāntika influence.³⁶ There is therefore good reason to assume a continuity of philosophical agenda with the Sautrāntika substance critique. King's assessment that Yogācāra criticizes atomism merely on experiential grounds³⁷ is too weak, as we have seen in the previous chapter that only the Sarvāstivāda realist phenomenalism admits atoms to be within the realm of experience—Sautrāntika does not.

I shall be using TOLA and DRAGONETTI³⁸ as the reference translation for the following reconstruction. However, the translations of ANACKER,³⁹ WOOD,⁴⁰ KOCHUMUTTOM⁴¹ and FRAUWALLNER⁴² are also taken into consideration. Also, I will be making frequent reference to KAPSTEIN's discussion of mereological considerations in Vasubandhu's argument,⁴³ as well as to the insightful analyses of SIDERITS,⁴⁴ CHATTERJEE,⁴⁵ and MATILAL.⁴⁶

3.2.1 The Scheme of the Argument

The structure of Vasubandhu's argument is apagogic, as is typical for proofs of idealism. He attempts to disprove the realist interlocutors' claims that external objects exist and are composed of transcendentally objective atoms given either directly in phenomenal experience or demonstrably constitutive of it.

Opponent Lineup Vasubandhu is arguing against three metaphysical realist opponents, each of whom propose a slightly different version of atomism. All three maintain mereological atomicity, but only the Vaibhāṣika and the Sautrāntika are mereological nihilists.

³⁶SCHMITHAUSEN, cited in HARRIS, *ibid.*, p. 172.

³⁷KING, *Asian Philosophy* 1998, *ibid.*

³⁸DRAGONETTI and TOLA, *ibid.*, pp. 142–147.

³⁹ANACKER, *ibid.*, pp. 167–171.

⁴⁰WOOD, *Mind Only*, *ibid.*, pp. 99–100.

⁴¹KOCHUMUTTOM, *ibid.*, pp. 174–182.

⁴²FRAUWALLNER, *Die Philosophie des Buddhismus*, *ibid.*, pp. 373–375.

⁴³KAPSTEIN, *ibid.*, pp. 181–204.

⁴⁴SIDERITS, *Buddhism as Philosophy*, *ibid.*, pp. 159–169.

⁴⁵CHATTERJEE, *ibid.*, pp. 62–67.

⁴⁶MATILAL, *Perception*, *ibid.*, pp. 359–362.

The Vaiśeṣika maintains that physical entities are real and directly given to experience. He proposes a direct realist account of perception with a foundational ontology of physical atoms in conglomeration.⁴⁷

The Vaibhāṣika position ventures that physical entities are conceptually imputed to coalesced collections of phenomenalistic atoms. Though the collections are only nominal, the atoms are real quality–particulars directly given to experience. Vaibhāṣika proposes a presentationalist account of perception based on a foundational ontology of substantial sensation–atoms that appear in collection.⁴⁸

In the Sautrāntika view, phenomenal experience is held to be unreal (*vikalpa*), but has underlying realities that are given to reason as necessary conditions to experience. The Sautrāntika representationalism commits to a foundational ontology of momentary stimulus–atoms.⁴⁹

Object of Refutation The object of Vasubandhu’s refutation is not the empirically external or outer object (as such objects also appear in dreams) but the mind–independent object, i.e. the category of the Kantian transcendental object (which does *not* appear in dreams). For the atomistic realist, the existence of such external objects is established by the existence of their atomic constituents.

But Vasubandhu argues that by *modus tollens*, since the existence of atoms cannot be proven, physical objects (or more technically, the outer *āyatanas*, i.e. the mind–independently existing sense–fields or logical spaces of sensibilia) likewise fail to be established as truly external.

Vasubandhu’s line of reasoning may be roughly reconstructed as follows: The dream hypothesis of perception adequately accounts for experience and is consistent with empirical evidence. Vasubandhu has already established the internal consistency of his thesis against the realist interlocutor’s objections in verses 2–10. Given that Vasubandhu’s model is basically equivalent in skeptical strength to a Cartesian scenario, it cannot be falsified by any

⁴⁷Viz. section 2.3, p. 39.

⁴⁸Viz. section 2.4.1, p. 49.

⁴⁹Viz. section 2.5.1, p. 62.

empirical evidence we will ever have. At this point, two closely linked objections may be brought into play:

(1) Williams relates the famous argument of O. K. Bouwsma that an illusion is no longer illusory if there is no conceivable way to distinguish it from reality. An illusion that is utterly undetectable as such by any empirical means can no longer be said to be deceiving us in any practically relevant sense.⁵⁰ But under a True Aspectarian interpretation, this objection does not pose a problem to Vasubandhu, as he may argue that experience is illusion only in a transcendental sense.

(2) By Popper's falsification principle, the dream hypothesis is not an empirical theory because it does not have the capability of being proven false by contradicting empirical evidence. Vasubandhu can, however, safely dismiss this objection as irrelevant because he doesn't claim that the dream hypothesis is an empirical theory—he is proposing it as a metempirical account of experience.

Method of Refutation Since Vasubandhu is arguing from the position of Cartesian *epoché*, he métaphysically brackets the transcendental existence of the external world while realism metaphýsically asserts it. Therefore the entire burden of proof in this argument lies on the realist. For realism to be true, the existence of the external world must therefore be established by transcendental reasoning.⁵¹

What could the realist's transcendental reasoning establishing the existence of an external world look like? The reasoning must have two steps, analysis and constitution. The analysis (i.e., the completion of Kant's so-called "regressus of decomposition") is necessary otherwise the metaphýsical realist can't be certain that he has constituted from ontological ultimates. The step of constitution cross-checks the analysis to ensure that the atoms thus determined can actually account for the appearances of things.

Vasubandhu opens the argument by setting up a destructive trilemma in **11**. The putatively external physical object must either itself be (1) a

⁵⁰WILLIAMS, *ibid.*, p. 107.

⁵¹For metaphýsical idealism to be true, the existence of the mind must be so established—but for now, this point is not being challenged by the realist.

unitary, unanalyzable whole, or a composite that can be analytically reduced to (2) a collection of isolated atoms (*saṃghāta*), as maintained by the Vaiśeṣika, or (3) a conglomerate of atoms (*piṇḍa*), as held by the Vaiśeṣika. The cases (2) and (3) resolve into a dilemma between spatially differentiated and point-like atoms.⁵²

Vasubandhu will go about the argument by showing that if simples are held to be spatially differentiated, then the analysis is incomplete, and if they are claimed to be truly partless (i.e. point-like), then they are incapable of constituting phenomena. After (2) and (3) have been eliminated by this *reductio*, he will close by debunking position (1), the final horn of the trilemma.

3.2.2 Against Spatially Differentiated Simples

The argument in **12** is directed against the Vaiśeṣika realist doctrine of minute but spatially extended spherical atoms that touch each other. Vasubandhu argues that it is impossible for spatially differentiated objects capable of direct contact with each other to be least parts (i.e. truly partless simples). This is because truly partless objects by definition cannot partially touch each other *in space*—they either touch completely or they do not touch at all. And they touch completely only if they precisely overlap each other, i.e. occupy the exact same location or spatial “receptacle.” Because spatially adjoining objects can only touch in parts, partless atoms cannot come into contact or be in connection (*saṃyoga*) with each other.⁵³

Mereological Argument This reading exploits the intuition of the metaphysical realist that space is absolute, which implies that objects do not

⁵²Incidentally, we find a very similar dilemma in the theory of classical electrodynamics, having to do with the size of the electron. If the electron is considered to be a rigid, extended particle, it will be necessary to posit some additional, unknown force that helps it to keep its shape, as the charges composing it will tend to naturally repel one another. However, if it is held to be point-like, the back-reaction of the electron’s own charge upon itself diverges against infinity. The problem of the infinite divergence of the point charge was not satisfactorily resolved until the 20th century, when theoretical physics saw the development of renormalization theory. Modern particle physics experiments indicate that the electron is in fact a point-particle.

⁵³CHATTERJEE, *ibid.*, p. 72.

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modify the geometrical structure of the space that they occupy. Vasubandhu assumes that even if it were possible to superimpose several objects of exactly identical shape into the same space, that the size of the objects would remain unchanged by this operation.⁵⁴ The Vaiśeṣika in fact admits that his binary least whole (*dvyāṇuka*), is of exactly atomic size because the constituent atoms cannot touch each other in parts. But according to the Vaiśeṣika, the *dvyāṇuka* formed in this manner is now a real parts–possessor—a whole over and above its parts.

There are, however, two problems with this view. First of all, two parts are only enough to constitute joining in two spatial dimensions. In order to arrange spheres in a three dimensional cubic lattice (as is probably the Vaiśeṣika proposal),⁵⁵ a minimum of six parts is required, as each atom contacts six others. This does not pose a major difficulty for the Vaiśeṣika, as he may easily revise his concept of least whole, and argue that it comprises six least parts rather than two.

Vasubandhu would of course argue that this revision doesn't do anything solve the underlying issue. This leads us to the second problem, which is that mereological parts can only join by occupying the same spatial receptacle. Least wholes cannot contact each other in parts as this would entail the spatial overlap of the contacting parts—and if this were to occur, the six atoms surrounding the center atom in the cubic lattice would collapse into it. All composite wholes would have the same size as a single atom, which Vasubandhu holds to be absurd. This is the “standard interpretation” of the argument as presented e.g. in Gelugpa doxography.⁵⁶

⁵⁴Of course, there are physical theories that dispense with the Newtonian assumption of absolute space. In Einsteinian relativity theory, for example, space has a variable metric, while the underlying space–time metric remains invariant. Vasubandhu's reasoning assumes that the realist is proposing a spatially extended atom in absolute space—which is of course what Vasubandhu's realist opponent is doing. The Vaiśeṣika position he is arguing against is not sophisticated enough to have a subjective or relative concept of space.

⁵⁵Close–packings of spheres in three–dimensional Euclidean space do not tessellate. The notion that the atomic lattice should have the spatial receptacle of an atom as its unit cell could be a possible reason why the Vaiśeṣika may be proposing that atoms join in a cubic lattice.

⁵⁶HOPKINS, *Maps of the Profound*, *ibid.*, p. 403.

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Here we observe that Vasubandhu is controversially assuming that connection (*saṃyoga*) entails overlap, which is not generally the case. Connection is a *topological* concept, whereas overlap is *mereological*.⁵⁷ If the two concepts are taken to be equivalent, then topology amounts to a model of mereology. Vasubandhu, being a Buddhist ultra-nominalist, is arguing just this. The gravamen of his case against the realist is the objection that an individual substance *qua* ontological ultimate must be construed as a bare mereological concept. Due to his Sautrāntika roots, Vasubandhu has a critical concept of space and considers topological primitives such as connection and shape to be *vikalpa*. To him, these conceptual constructions are unreal and therefore not appropriate to the realm of ontology. Once we have accepted the ultra-nominalist premise that ultimate ontology is bare mereology—as Vasubandhu is urging—then his argument against atomism simply runs its course without further obstacles.

Since his two Buddhist opponents, the Vaibhāṣika and the Sautrāntika are both committed to mereological nihilism, they have no other choice but to go along with the unwelcome consequences of this position that Vasubandhu is about to draw for them.

The Sautrāntika position will be scrutinized later—for now, Vasubandhu is going to score points against the Kashmiri Vaibhāṣikas, who submit in **XX** that the mereological argument has no impact on their position.

The Vaibhāṣikas explain that because they do not maintain the existence of connections between the partless substance-atoms that constitute the aggregate-atom (we recall that according to their view, the substance-atoms are separated by interstices). They argue that only these aggregate-atoms (or cohesive “molecular” groups) are connected among themselves, since they have parts. Vasubandhu off-handedly dismisses this theory in **14** with the observation that the aggregate is a nominally designated mereological sum. Therefore, it cannot be a parts-possessor or be admitted to have any physical

⁵⁷See ACHILLE VARZI, *Spatial Reasoning and Ontology: Parts, Wholes and Locations*. in: M. AIELLO, I. PRATT-HARTMANN and J. VAN BENTHEM, editors, *Handbook of Spatial Logics*. Springer-Verlag, 2007 (URL: http://www.columbia.edu/~av72/papers/Space_2007.pdf) – accessed on June 28, 2008. – chapter 1, 33–35.

properties (such as connection, covering, resistance and obstruction) that its individual atoms lack.

Otherwise the aggregate–atom becomes a real conglomerate (*piṇḍa*), which would be the position of the Vaiśeṣika.⁵⁸ Being an ultra–nominalist, the Vaiśeṣika is forced to accept this consequence. Vasubandhu emphasizes that the aggregate–atom’s inability to connect is due its purely nominal status, not due to the partlessness of the substance–atoms—this is an issue that he deals separately later on in the argument.

The Vaiśeṣika, on the other hand, is still very much alive and kicking. He is not willing to accept the idea that the atom is a bare mereological least part and retables an amended version of his proposal. Substance–atoms are *not quite* bare mereological least parts, he argues. They occupy receptacles and therefore have spatial extent. Two atoms join through mereological overlap (filling the same receptacle) to form a binary (*dvyanuka*).⁵⁹ Topological connection is a property of integral wholes, not of least parts. The *dvyanuka*, being an integral whole, can now topologically connect as it pleases.

However, Vasubandhu evidently thinks there is something deeply wrong with the idea that a mereological least part can possess spatial extent. Thus far, we have examined his “mereological argument” against the Vaiśeṣika. But later on in **14** and **XXIII**, he offers a more general “geometric argument” intended to knock down the notion that an atom extended in space (i.e. occupying a spatial receptacle) can be an indivisible unity (*ekatva*). Vasubandhu unfortunately does not specify the argument in depth. He says only this much—a unity in which there is a “division according to the sections of the space” is not logically possible. In the following, we will examine two possible readings for this argument—the Zenonian and the Kantian model.

Zenonian argument from complete divisibility The argument of complete divisibility (essentially a reformulated version of Zeno’s metrical paradox of

⁵⁸MATILAL, Perception, *ibid.*, p. 362.

⁵⁹The Vaiśeṣika can’t afford to argue that point–like atoms combine into a spatially extended *dvyanuka*. Since the *dvyanuka* is physically divisible, such a view would entail the unacceptable consequence that matter loses its spatial extent when broken out into ultimates.

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extension),⁶⁰ was first described by Aristotle, but later attributed to Zeno by Simplicius.⁶¹

If a body is completely divisible, then it must be divisible into parts that do not have any magnitude (else these parts would have spatial magnitude and therefore be incompletely divided). A complete division leaves either extensionless point-parts or nothing whatsoever. Zeno concludes that if nothing whatsoever remains after the division of a body, then the body is an illusion—*ex nihil nihilo fit*. And if only extensionless points remain, the sum of their extensions is zero, and therefore the body will be unextended. By consequence, if in reality, the body is no larger than a single point-atom, the appearance of an extended body would be illusory.

Against this, the Vaiśeṣika will convey that the indivisibility of the atom is a merely physical one. It applies only to its physical substance and not to its spatial extent. The thesis being stated here is that for an entity to be a mereological least part, it is necessary and sufficient for it to be *physically* indivisible. This counter-argument is reasonable enough to derail the Zenonian analysis, and it is not immediately obvious as to what might be wrong with it.

We can observe that by insisting on the *necessity* of a limit to physical division, the Vaiśeṣika is maintaining a position that resembles Kant's thesis of the second antinomy of pure reason, which now leads us to examine the second interpretive model for Vasubandhu's geometric argument.

Kantian antithesis In the thesis of the second antinomy, Kant argues that composites are decomposable, and, more controversially, proposes the necessity of mereological atomicity—decomposition must entail reducibility to minimal parts. Every real composite must be reducible to a bottom level of self-subsisting simples. For if the operation of decomposition were to possess the property of closure (i.e. every composite entity yields only further com-

⁶⁰PYLE, *ibid.*, p. 1ff.

⁶¹NICK HUGGETT, Zeno's Paradoxes. in: EDWARD N. ZALTA, editor, *The Stanford Encyclopedia of Philosophy*. Winter 2006 (URL: <http://plato.stanford.edu/archives/win2006/entries/paradox-zeno/>) – accessed on July 3, 2008.

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posite entities under decomposition), nothing would remain if all composite entities were to be analyzed away, which Kant claims to be absurd.

The antithesis of Kant's second antinomy attempts to show that composites cannot have minimal parts. Kant's case is based on the following premises—(1) composition is an external relation of substances and is possible only in space, (2) every part of a composite must occupy a sub-receptacle of the composite's receptacle, (3) these sub-receptacles are themselves spaces. Therefore the receptacles of the simples are spatial. However, according to Kant, because space is external relation of substances, or rather, an inner mode of representation in which certain perceptions are connected to each other,⁶² a receptacle cannot be a space unless it contains a manifold or composite of substances in external relation to each other. But if the receptacle of a simple substance contains a composite, this implies the absurdity that the simple is a substantial composite.⁶³

Furthermore, Kant thinks that it is inconsistent for one and the same space to have two distinct limit-concepts—the extensionless geometrical point and additionally, the physically indivisible but geometrically space-filling physical point.⁶⁴

Perhaps the Vaiśeṣika position that the atom is “absolutely imperceptible” may be seen as an attempt to get a grip on this discrepancy by letting the physical extent of the atom converge against the spatial limit-concept.⁶⁵ Supposing the atom is held to be geometrically divisible but physically

⁶²IMMANUEL KANT; WILHELM WEISCHEDER, editor, *Kritik der Reinen Vernunft*. Volume 2, Suhrkamp-Taschenbuch Wissenschaft, 1980, p. 381 (A 378). For a discussion of Kant's relational theory of space, see also MALTE HOSSENFELDER, *Kants Konstitutionstheorie und die Transzendente Deduktion*. Walter de Gruyter, 1978, p. 60–61.

⁶³KANT, *ibid.*, p. 421 (B 463), see also STEPHAN SCHMAUKE, *Wohlthätigste Verirrung: Kants kosmologische Antinomien*. Verlag Königshausen & Neumann, 2002, pp. 63–64.

⁶⁴KANT, *ibid.*, p. 425 (B 469). Here the realist might consider a multi-space scheme similar to the one proposed by Carnap in *Der Raum* (see MAURO MURZI, *Rudolf Carnap (1891–1970)*. in: *Internet Encyclopedia of Philosophy*. (URL: <http://www.iep.utm.edu>) – accessed on July 4, 2008), where the regresses of sensory divisibility, physical divisibility and geometric divisibility each terminate at the limit-concepts for their respective spaces. Geometrical divisibles need not be physically divisible, and physical indivisibles can be much smaller than *minima sensibilia*. But such a scheme would of course represent an unacceptable departure from the notion of an absolute space.

⁶⁵There is another problem with the infinitesimal atom—it fails to preserve the Vaiśeṣikas' assumption that composites must decompose into a finite number of entities.

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indivisible, one may ask whether its shape is physical or geometrical. If it is both, then absurdly, the atom's shape is divisible and indivisible. Finally, if the atom's shape is merely geometrical, then the atom has turned out to be a synthesis of a substance with a geometric shape—and a simple, by definition, may not be a synthetic whole.

Kant remarks that the antitheses of the antinomies are typical of empiricist views.⁶⁶ If Vasubandhu's argument is anything like the antithesis of the second antinomy—and I think it is—then it should be fair enough to characterize his position as a kind of empiricism.

We will not be able to establish here whether Kant's attempt to prove that a substance cannot have both spatial extent and simplicity satisfactorily accomplishes the work cut out for it.⁶⁷ Vasubandhu probably intuitively—for reasons much similar to those of Kant—that there can be no such thing as a mereological least part that occupies a receptacle. Would he then also agree with the thesis of the second antinomy? On Kapstein's reading, Vasubandhu argues both the thesis and the antithesis of Kant's second antinomy: "Vasubandhu, on the other hand, aims to demonstrate that the atomic theory is *both false and necessary*."⁶⁸

But Kapstein's explanation of what Vasubandhu is up to here is muddled. Vasubandhu is not aiming to establish the necessity of the atomic theory—he is merely attempting to demonstrate that the realist's atomic theory leads to antinomy. The "necessity" of the atomic theory is the realist's position, not Vasubandhu's.

What of the possibility of "exotic space?" The realist need not assume that space is continuous—he may argue that it is discrete (as was first proposed by Zuse).⁶⁹ Or he could argue that the metrical structure of three-dimensional Euclidean space is a property that only emerges at the scale of macroscopic objects. Continuity and metric could be macroscopic epiphenomena of some

⁶⁶KANT, *ibid.*, p. 444 (B 495).

⁶⁷Clearly, the added leverage (if any) of Kant's antithesis argument over Zenonian argument from divisibility can only derive from additional considerations apart from the geometric properties of space itself—such as the conditions of its epistemological constitution.

⁶⁸KAPSTEIN, *ibid.*, p. 186.

⁶⁹See KONRAD ZUSE, *Rechnender Raum*. Vieweg, 1969. However, it is rather unlikely that a stick-in-the-mud realist would try to save his metaphysics with a computer theory of reality, as generally speaking, such theories are dead ringers for idealism.

more exotic type of space at a microscopic level, e.g. a space that comes in discrete chunks, that has more than three dimensions, etc.—as is often assumed in modern theoretical physics.

However, if the realist were to travel down this route, he would effectively be arguing that space has hidden properties not accessible to sensible intuition—a very slippery slope for a direct realist like the Vaiśeṣika.

3.2.3 Against Point-like Atoms

The treatment of point-like atoms as a possible case is a hermeneutic interpolation to make the proof easier to follow. The terms “point” or “point-like” are not explicitly mentioned by Vasubandhu—the *kārikās* and auto-commentary only discuss the atom *qua* “unity” (*ekatva*). This assumption is supported by the interpretation of Siderits, who also ventures that Vasubandhu is examining the case of point-like atoms.⁷⁰

Vasubandhu’s arguments in 14 are directed against the idea that phenomenal appearances cannot be constituted from point-like atoms. He argues that atoms must be spatially differentiated in order to account for certain visual phenomena such as light and shadow or extended surfaces.⁷¹

Since Vasubandhu has already established that true atoms cannot not have spatial differentiation, the argument that point-like atoms cannot account for appearances completes the *reductio* against atoms.

Shadow Terminator Argument This argument is against the Vaiśeṣika opponent, who wishes to dodge Vasubandhu’s arguments against spatially extended atoms by proposing point-like atoms in lieu of his original theory that atoms are infinitesimally sized spheres. Vasubandhu’s objection is predicated on the Vaiśeṣika’s physicalistic belief that light is a kind of incorporeal substance or luminous fluidum⁷² (unlike the understanding of the phenomenalizing Buddhist schools, who analyze light strictly as intensity

⁷⁰SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 163, cf. KAPSTEIN, *ibid.*, p. 190, who opines that it is highly questionable that Vasubandhu entertained the idea of point-like atoms.

⁷¹ANACKER, *ibid.*, p. 169.

⁷²KARL H. POTTER, editor, *Encyclopaedia of Indian Philosophies: Buddhist Philosophy 100-350AD*. Volume 8, Motilal Banarsidass, 2002, pp. 267–268.

of visual sensation or stimulus). The Vaiśeṣika define shadow as absence of illumination.

Vasubandhu contends that for a matter–atom to be able to cast shadow on other objects, it must obstruct the fluidum, which it can only do if it is bisected by a shadow terminator (a line dividing the illuminated from the shadowed section of the atom). But a truly point–like matter–atom cannot have a light and a shadow side. It is incapable of obstructing the luminous fluidum, any more than a dam can hold back water without an upstream and a downstream face.⁷³

The realist protests that even if individual atoms are uniformly light or shadow, this does not logically exclude the possibility that a conglomerate of atoms could be bisected with a shadow terminator, dividing uniformly light from uniformly dark atoms.

In response, Vasubandhu inquires whether is it being admitted that an agglomeration (*piṇḍa*) is something other than the atoms themselves. Is the realist in other words willing to admit conglomerates of atoms into his foundational ontology? The realist objector is forced to answer that they can't be admitted—to do so would defeat the whole point of having a foundational ontology. However, if the conglomerate is not admitted as an entity in its own right, then the realist's objection is scuttled. How is it that the conglomerate as a whole can obstruct light if none of its atoms are able to? One would expect it to be totally transparent.

Of course, this line of reasoning does not take into account the modern physical theory of point–like particles that can act at a distance by way of field effects. But this poses no problem for Vasubandhu because none of his realist opponents adhere to such a view.

Displacement Argument Here Vasubandhu argues that if atoms are incapable of obstructing each other, they lose the ability to spatially displace each other and collapse into the same spatial location when connected. Possibly, Vasubandhu is playing on the geometrical intuition that an extensionless (i.e. point–like) atom with no internal structure can make direct contact with

⁷³SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 164.

another such atom if and only if they both occupy the exact same geometrical point. In this particular edge case, topological connection coincides with mereological overlap.

The displacement argument applies equally to the Vaiśeṣika and the Vaibhāṣika atomisms. The Vaibhāṣika's aggregate-atoms cannot connect, nor can their non-obstructing partless atoms. The Vaibhāṣika of course agrees that atoms do not connect to each other. But if atoms are unconnected, individually partless and non-obstructing (i.e. point-like), the Vaibhāṣika is unable to account for how they might constitute physically resistant or visually opaque surfaces in sum. He is reduced to abiding by the unconvincing hypothesis that individual substance-atoms have latent properties that are actualized only when they are perceived in collection. This is unsatisfactory because it is not admitted that an individual atom may be perceived in isolation—hence, the cases of latent properties and “insensible sensibilia” coincide. Talk of latent properties does nothing to alleviate the real problem at hand.

3.2.4 Against Integral Wholes

After Vasubandhu has thoroughly laid waste to the idea that atomism is compatible with a two-term theory of perception, the Vaiśeṣika is back with a new proposal predicated instead on the integral whole (*avayavin*). He objects that since Vasubandhu's reasoning against atoms and conglomerates has left the phenomenal characteristics (such as form-color) of the external sense-fields untouched, why not simply admit percepts (i.e., integral wholes) as external?⁷⁴

The Vaiśeṣika contends that the whole is an object of valid knowledge. If the whole is known by any means of valid knowledge, it is useless to consider the alternatives as to how it exists in the parts. He pleads the common-sense realist standpoint that abstract speculation cannot override valid experience of unities. The perception of the unitary whole does not depend on the perception of atoms, he argues, although their existence can

⁷⁴DRAGONETTI and TOLA, *ibid.*, pp. 145–146.

3.2 Argument against Atomism

be inferred.⁷⁵ We can already surmise what Vasubandhu thinks of this. In his auto-commentary to the *Kośa*, he has gone so far as to disparage the integral whole (*avayavin*) theory of the Vaiśeṣika as “infantile.”⁷⁶

Although he almost can’t be bothered with a counter-argument, Vasubandhu expands into a one-or-many *reductio* and immediately dismisses the many case as having already been refuted. As for the case that phenomenal appearances themselves are integral wholes, Vasubandhu argues that a real, self-subsisting unity ought to have uniform, non-conflicting properties. He then points out some of the absurdities that result from this idea. The core of the argument is contained in his axiomatic proposition: “For a concurrent apprehension and non-apprehension of the same thing isn’t logical.”⁷⁷

Here we need to keep in mind that Vasubandhu is speaking of the atom *qua* perceptual datum. By definition, an atomic perceptual datum must either be given in its entirety or not at all. If it is possible to see only part of an object (for example, an aspect of a tree), the object cannot be an atomic datum. But all gross physical phenomena, Vasubandhu points out, are only ever given in aspect. While we may say that we see a brown table, we will have to admit that there are parts of the table that we do not see.

Chatterjee conjectures that Vasubandhu is making an argument for the necessity of phenomenal pluralism to subjective epistemic knowing, as absolute unity would entail an absolute uniformity of experience without change or succession.⁷⁸ Kochumuttom has it that Vasubandhu is attempting to refute Parmenidean monism.⁷⁹

While there is something to be said for these points, the following examples provided by Vasubandhu illustrate that his argument is mainly mereological in thrust. On the reading being proposed here, after already having argued against the substantial partless part, Vasubandhu is now demolishing the idea of the substantial partless whole.

⁷⁵SINHA, *ibid.*, pp. 199-201.

⁷⁶ANACKER, *ibid.*, p. 129.

⁷⁷ANACKER, *ibid.*, p. 170.

⁷⁸CHATTERJEE, *ibid.*, p. 67.

⁷⁹KOCHUMUTTOM, *ibid.*, p. 169.

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In the first example, Vasubandhu raises the objection that partless wholes contradict the experiential reality of incremental movement. If the earth, for instance, were an indivisible unity, it should not be possible to walk, because the ground would have no parts that could be traversed by the successive steps. For motion to be possible, there must be distance, which in turn entails spatial extent and directional parts.

Next, if entities are partless wholes, it should not be possible to grasp a whole in some parts but not in others. Yet clearly, we are touching the elephant even if we are only touching its trunk and not its tail.⁸⁰

Moreover, if it is supposed that partless wholes are differentiated only by their phenomenal characteristics and not by their spatial location, then it should not be possible to distinguish horses from elephants, or several horses from one. A separation of entities could not be accepted since everything would be spatially indistinct, i.e. occupying the same location.

In the final example, which involves microscopic aquatic animals,⁸¹ Vasubandhu argues that entities are distinguished by size. Else if phenomenal characteristics were held to be independent of physical size, we should be able to see micro/-organisms with the naked eye.

The distinction of phenomenal characteristics (i.e. description of sensory experience in a purely phenomenal language) is in and of itself insufficient to distinguish unities—non-phenomenal factors such as quantity, distance, size and time must be brought in.⁸² Such concepts are not reducible to phenomenal language.

The phenomenal wholes given to experience have parts, Vasubandhu reasons, and if they are to be substantial, they must necessarily have least parts.⁸³ But they do not—therefore he concludes that phenomena are insubstantial, and that there is no more to a phenomenon than our awareness of it.

⁸⁰As noted above, Anacker reads this passage as referring to perceptual “apprehension,” not to tactile grasping.

⁸¹The question of how Vasubandhu was aware of the existence of such organisms 1200 years before van Leeuwenhoek perfected the microscope will have to remain unanswered.

⁸²SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 166.

⁸³Contra Kapstein: necessarily, that is, to the *realist*—not to Vasubandhu.

3.2.5 Against the Causal Theory of Perception

In **16**, the argument is against the Sautrāntika, who espouses a stripped-down version of the Vaibhāṣika externalism of mental intentionality. A mental representation is epistemically grounded by the collection of stimulus-atoms that causally generated it, the Sautrāntika wishes to claim. He is proposing something of the sort that momentary (*kṣaṇika*) point-like stimulus-atoms act in aggregate upon the sense bases to causally generate non-point-like sensations that assemble into representations.

The time-gap argument for representationalism is premised on the idea that because there can be a delay between an observed event and one's observation of it, one actually observes a representation of the event.⁸⁴ But the time-gap argument only supports representationalism if physical objects are assumed to exist. If the external object is the probandum of the argument—as is the case for the Sautrāntika strain of realism—it operates against representationalism instead of confirming it.⁸⁵

Vasubandhu points out that under a strict presentist account of atoms, externalism about intentional states breaks down completely. Because Sautrāntika doesn't admit to external temporal continuants, by the time a mental representation arises, the stimuli that caused it have evanesced. By consequence, all representations of external objects come to be representations of absistents—neither do they offer a solid ground of inference about reality, nor do they require the epistemic grounding that such an inference might provide.

This line of reasoning echoes a Vaibhāṣika critique of the Sautrāntika representationalism, to the effect that that inference is based on logical pervasion (*vyapti*) of the mark of inference and the inferred property. This pervasion being the ground of inference, it cannot itself be derived from inference but must be given in perception. However, since the Sautrāntika

⁸⁴MICHAEL HUEMER, Sense-Data. in: EDWARD N. ZALTA, editor, *The Stanford Encyclopedia of Philosophy*. Fall 2007 (URL: <http://plato.stanford.edu/archives/fall12007/sense-data/>) – accessed on July 6, 2008.

⁸⁵SIDERITS, *Buddhism as Philosophy*, *ibid.*, p. 169.

denies direct perception of external objects, they can never be objects of inference either due to a lack of the necessary ground of inference.⁸⁶

Since the Sautrāntika's causal theory of perception invalidates his own thesis while establishing the position of Vasubandhu, the Sautrāntika might as well dispense with his gratuitous metaphysical hypothesis of external objects. Russell once famously argued that naïve realism, if true, is false; therefore it is false. Vasubandhu is driving home an analogous point about the Sautrāntika position.

3.2.6 Resumée of the Argument

If there are no atoms, then ought Mind-Only not to maintain that phenomena are in principle infinitely divisible? Why is it taken for granted by his realist opponents that infinite divisibility is a problem? Leibniz, for example, believed the idea that atoms mark an end to the subdivision of matter to be a dangerous error.⁸⁷ David Lewis and others have speculated that the hypothesis that physical objects are “atomless gunk” ought not to be ruled out *a priori*.⁸⁸ It is also conceivable that some (but not all) composite objects have a complete atomic decomposition.

It has been argued by some modern commentators that Vasubandhu's demonstration shows not that phenomena are not compounded, but that they are compounded to an infinite degree, i.e. that phenomena are gunk.⁸⁹ Following the principle of *ex nihilo nihilo fit*, since infinitely divisible phenomena lack a compositional base of elemental substances, they are insubstantial and therefore illusory. Vasubandhu's line of reasoning may be construed as an inversion of Epicurus' principle that indivisible minima are necessary if macroscopic bodies are not to be mere appearances.⁹⁰ Since indivisible minima are logically impossible, Vasubandhu concludes that macroscopic bodies *are* in fact no more than appearances.

⁸⁶SINHA, *ibid.*, p. 59.

⁸⁷JOHN D. BARROW, *The Universe That Discovered Itself*. Oxford University Press, 2000, p. 181.

⁸⁸See TED SIDER, *Van Inwagen and the Possibility of Gunk*. *Analysis*, 53(4) 1993.

⁸⁹ŚĀNTARAKṢITA and MIPHAM, *ibid.*, p. 42.

⁹⁰PYLE, *ibid.*, p. 9.

Must phenomena have a compositional base in order to sustain realism? Or restating the question in broader terms, need a foundationalist realism entail reductionism and externalism? The Indian realists of Vasubandhu's day seemed to think so. Would they even recognize a coherentist, non-reductionist, internalist epistemology as realism? To hazard a guess, perhaps they might recognize such a realism as *Vijñānavāda*!

The argument against atomism requires a number of unstated assumptions to function as intended, many of which are quite possibly false. The notion of physical divisibility, for example, may pose theoretical difficulties to Vasubandhu's analysis, as it requires a concrete physical operation, as opposed to a purely abstract or mental operation. The required energy to split a composite particle must be supplied by some particle interaction which physically destroys the original composite particle. This process cannot be compared to analytic decomposition, as once a composite particle has been physically split into its component parts, the composite that they were a part of no longer exists. Therefore, they can no longer be properly considered parts of that composite.

To give a blanket refutation of atomism, Vasubandhu would have to demonstrate that, generally speaking, all atomistic mereologies are either logically inconsistent or empirically useless, but of course his argument accomplishes no such thing. Also, it does not defeat gunk theory and theories such as those of modern particle physics involving point-particles with interactional force fields, nor does it damage ontologically non-absolute atomisms such as constitution from sensory minima, attributive atomism, instrumentalist atomism or logical atomism.

But Vasubandhu's argument against atomism is nonetheless strong enough to handily dispatch any realist account which proposes that ontologically absolute atoms are metaphysically constitutive of phenomenal experience. It pulls out the rug from the *Vaiśeṣika* claim that their particles lack proper parts, and beats back the *Vaibhāṣika* notion of point-particle sensations that aggregate to form extended sensation-clusters that join with other clusters to constitute macroscopic phenomena. And, as I will argue in the following, the *Vijñāptimātra* viewpoint does not intend to damage onto-

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logically relativist forms of atomism—on the contrary, it is fully compatible with it.

From the Mind–Only point of view, parts and wholes are conceptual fictions (*vikalpa*), yet *within* within the dream–like epistemological fiction of ordinary experience, they are true.⁹¹ For unlike Cincinnatus C., the unfortunate protagonist of Nabokov’s *Invitation to a Beheading*, who is imprisoned and sentenced to death for the unutterable crime of “gnostic turpitude,” we generally do not care to entertain the idea that the world we are inhabiting is an unreal fiction (*abhūta-parikalpa*) generated by the dualizing mind. During the course of our discussion of the argument against atomism, we have seen how Vasubandhu parlays the Buddhist’s nominalist skepticism about part–whole realism into a full–scale assault on the *Ding an sich*. Little should we be surprised if the gnostic turpitude that Vasubandhu is so blatantly inciting reveals itself upon closer examination to be nothing other than good, solid empiricism.

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Swapping our philosophical horses in midstream, we now pass to an investigation of empiriocriticist views on the ontological status of the atom and the external object. To be sure, the aim of comparing Mind–Only with empiriocriticism is not to completely gloss over the differences between the two. Mach and Avenarius are not subjective idealists,⁹² and their critique of the synthetic *a priori* does not have an equivalent in Mind–Only (though there is a great deal of category critique to be found).⁹³ The radical presentism and the strong mystical subtext of Mind–Only are absent in empiriocriticism. Nevertheless, a search for epistemological common ground won’t take long to strike paydirt.

⁹¹See JAY L. GARFIELD, Reductionism and Fictionalism: Comment on Siderits’ “Personal Identity and Buddhist Philosophy”. Online, 2008 (URL: <http://www.smith.edu/philosophy/documents/ReductionismandFictionalism.pdf>) – accessed on July 7, 2008, p. 2.

⁹²That is to say, *on their own count*, they are not—though the charge of subjective idealism has been put to them by others.

⁹³Matilal considers it to be a lacuna of Indian epistemologies in general that they lack an elaborated notion of *a priori* knowledge, see MATILAL, Perception, *ibid.*, p. 31.

We must be careful not to push the comparison with Mind–Only too far—Mach attempts to steer clear of the extreme of mentalism (ontological idealism), whereas Vasubandhu arguably embraces it. But although Vasubandhu is planted more firmly in the idealist camp, his anti–atomistic epistemology is remarkably close to the sensation pluralism of Mach, a passionate critic of atomism. He is opposed to the Kantian *Dinge an sich* as well as to the metaphysical atomism of the physical theory of his day for very much the same reasons as Vasubandhu rejected the atom and the external object.

Mach attempts to gain the unstable epistemological middle ground between idealism and realism.⁹⁴ Sommer points out a small but important detail about Mach’s position: sensations are not intrinsically subjective, as is commonly assumed.⁹⁵ To Mach, the elements of experience (the *explananda*) are the epistemically prior raw materials of the *explanans*, i.e. the construction of subjectivity and objectivity⁹⁶ as they are given rise to by naïve realism.⁹⁷

In Mach’s view, as opposed to the metaphysical Vaibhāṣika notion of the aggregate–atom (*saṃghāta–paramaṇu*), sensation–nuclei are purely correlative conceptual constructs. The atom is a mental shorthand (*Gedanken-symbol*) for the covariance of functional relationships between the sensational elements of different psychophysical spaces, i.e. the space of vision, of hearing and of tactile sensation.⁹⁸ The notions of metaphysically absolute space, time and substance have no place in Mach’s epistemology. Substances and atoms are higher order “tensorial abstractions.” They are pragmatic ideas that help us to economically conceptualize the complexes, relations and connections of sensations.⁹⁹ In the same vein, Mach maintains that scientific

⁹⁴SOMMER, *Evidenz im Augenblick*, *ibid.*, pp. 77–78.

⁹⁵MANFRED SOMMER, *Husserl und der Frühe Positivismus*. Vittorio Klostermann, 1985, p. 81.

⁹⁶Respectively, the functional interrelations of $\alpha \beta \gamma$, or the “psychic” elements, and A B C . . . K L M . . . , or the “physical” elements.

⁹⁷Anticipating evolutionary psychology by a century, Mach views common–sense realism as a sophisticated adaptation, see MACH, *ibid.*, p. 30.

⁹⁸MACH, *ibid.*, p. 254.

⁹⁹MACH, *ibid.*, pp. 268–269.

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explanations, including the natural laws of physics, are merely economical descriptions of functional relation.¹⁰⁰

As Musil observes, Mach does not see any difference in kind between explanation and description, nor does he believe the veridicality of descriptions to involve any kind of metaphysical correspondence to reality. His theory of métaphysics and epistemology is grounded in evolutionary psychology.¹⁰¹ Descriptions acquire their truth–value in pragmatic use. Conceptualization does not stand apart from the process of functional relation, but rather, participates in it, by assisting the organism in selectively adapting to its environment.¹⁰²

Turning to Avenarius, Mach’s philosophical brother–in–arms, we find that he mobilizes a similarly instrumentalist view of atomism, framing the principle of economy as the cognitive rationale for the atomic concept. This principle is the cornerstone of Avenarius’ radically empiricist reformulation of Kantianism, and may be characterized as a philosophical generalization of the principle of least action in physics. The requirement for underlying unities that hold experience together is not an *a priori* in the Kantian sense, but a matter of descriptive parsimony:

Due to the principle of economy, we have a need to think in terms of limiting concepts such as the atom, despite that its existence is not proven or transcendently established.

Because analytical decomposition satisfies the need for comprehension, the process of decomposition is mentally continued even where empirical evidence no longer supplies solid confirmation but only indicates the direction of analysis. This actually infinite process of mental analysis can only be brought to a conclusion by interrupting it at a certain point and declaring it to be completed by some new idea at a more remote point left in the dark.

¹⁰⁰ROBERT MUSIL, *Beitrag zur Beurteilung der Lehren Machs und Studien zur Technik und Psychotechnik*. Rohwolt, 1980, pp. 96–101.

¹⁰¹The psychology of Mind–Only is also “evolutionary,” but in a very different way. Concept formation is accounted for by the karmic determination of present experience through past actions.

¹⁰²MUSIL, *ibid.*, pp. 24–25.

Aside from giving the impression of comprehension, these completing concepts offer intellectual support from two sides, on the one hand, by positing that their referent is no longer composite but simple, thereby putting an end to the mental process of division, and on the other hand, by suggesting that the indivisible thing is immutable, thus pacifying the demand for a continual change of content. The simple is now the immutable, even though its accidental connections are subject to absolute change, such a fictitious terminating idea is embodied in the concept of the atom, inasmuch as the atom is considered to be unanalyzable and immutable.¹⁰³

According to Avenarius, the regressus of decomposition gratifies the demand for ontological closure, i.e. the cognitive need for fixed objects that are regulated by the structuring concepts of experience. But he is under no illusion that this procedure can ever truly be brought to completion or be made to yield *Dinge an sich*—rather, it is simply cut off at some point to produce a conveniently fictitious ontology.

However, Avenarius is concerned that this approach might lead to reductionism, which he eschews as being an unacceptable reification of atomist instrumentalism: “Thus this so-to-say atomistic individualization of sensations will remain an indispensable aid in creating the impression of comprehension with regard to our life of sensations and concepts, but it must be warned against viewing the world as a kind of kaleidoscope composed of such mosaic pieces of sensation.”¹⁰⁴

Avenarius is justifiably suspicious of reductionism. Even if a reductionist program could be carried out, he would be left holding the bag of metaphysical commitment to phenomenalistic atoms, with all the pitfalls that this position entails. Like Vasubandhu, he does not believe that there are atoms given to pre-theoretical, common-sense intuition, or that the whole of experience naturally fractures into atoms along pre-determined breaking points. He characterizes the atom as a mere “*Hilfsbegriff*”—a

¹⁰³RICHARD AVENARIUS, *Philosophie als Denken der Welt gemäß dem Prinzip des kleinsten Kraftmaßes*. Edition Classic Verlag Dr. Müller, 2006, p. 63, my translation.

¹⁰⁴AVENARIUS, *ibid.*, p. 64, my translation.

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provisional concept of theory that satisfies the pragmatic need for intellectual comprehension, but he dares not urge a firm ontological commitment to it, lest his pure phenomenalism revert back to a pre-critical metaphysics.¹⁰⁵

The Avenarian substance-atoms are theoretical constructs, much like the constitutional elements of Carnap's *Aufbau*: "Constitution theory and transcendental idealism agree that all objects of knowledge are constituted (in idealistic language, 'generated by thought'), and that this ultimately applies to the basic elements of the constitution system."¹⁰⁶

For both Avenarius and Carnap, it is irrelevant as to whether or not material composition or epistemological constitution are grounded in a metaphysically absolute ontology. To their point of view, foundational ontology is just as much a logical construct as the world that is built up from it. The similarity to the epistemological idealism of Mind-Only is striking: "Thus, the thesis of the intentionality of citta becomes displaced in the emerging Yogācāra philosophy by an emphasis upon the 'phenomenalistic' nature of objects. Objects are really dharma-constructs and representations (*vijñāpti*), dependent upon the complex processes of citta for their appearance."¹⁰⁷

The Avenarian empiriocriticism contends that atomism is valuable as a strictly instrumentalist hypothesis, whereas Mach believes even an instrumentalist concept of the atom to be unnecessary to science.¹⁰⁸ Avenarius' rationale for the dichotomy of appearances and things-in-themselves is also remarkably similar to the Mind-Only doctrine that the dualizing mind

¹⁰⁵A detailed discussion of whether or not Avenarius' phenomenalism gives in to the Sellarsian myth of the given will not be possible here. The initial position of Avenarius' analysis is the "empiriocritical assumption," which does include (among other things) the totality of "E-values," i.e. the contents of phenomenally descriptive propositions. But while it may *appear* as if Avenarius' analysis is proceeding from the "given," one of the stated goals of his approach is to work towards an understanding of the precise sense and extent to which propositional contents may even be assumed as experience to begin with (see RICHARD AVENARIUS, *Kritik der Reinen Erfahrung*. Volume II, Georg Olms Verlag, 2004, p. 1). So, far from simply *assuming* the epistemic priority of the given, Avenarius is making this *hysteron proteron* one of the central objects of his critique.

¹⁰⁶CARNAP, *Aufbau*, *ibid.*, pp. 246–249.

¹⁰⁷KING, *Asian Philosophy* 1998, *ibid.*

¹⁰⁸Viz. Ostwald's famous attempt to reformulate thermodynamics without the atom (BARROW, *ibid.*, pp. 183–184), as opposed to Boltzmann, who strongly advocated the atomic hypothesis.

(*vijñāna*) is responsible for the superimposition of the conceptually constructed (*parikalpita*) nature onto the flux of experience:

The development of thought eventually had to reach the point where it came to awareness that the so-called properties of the thing were in fact sensations of the sensing subject; thus, the properties ceased to belong to the thing itself—as their designation would indicate—they departed their relationship of dependence from the thing and entered into a more idealistic relationship with the sensing subject. As a result, a difference had to emerge between the thing as it was for the sensing subject and the thing as it was in itself.¹⁰⁹

In Mind-Only, the percept is held to be a noema generated by transcendental subjectivity. Thus we find the Avenarian “introjection,” or bifurcation between the strictly private percept and the public object, being carried to its most radical conclusion. The strategy of Mind-Only for eliminating introjection is to wholly absorb the objective world into the subjective perception. The epistemological trajectory that begins with naïve realism and progresses through critical realism (where the organizing forms of experience are constituted by metempirical generative acts of the mind) is brought to maturity in the view that experience springs entirely from the transcendental subjectivity.

Mach’s psycho-physical parallelism, which attempts to resolve the Avenarian problem of introjection,¹¹⁰ is often cast as a paradigmatic example of neutral monism.¹¹¹ But while Avenarius’ sensation monism is an explicit one, the picture with Mach is slightly more complex. He argues dualism against monism and vice versa in a Mādhyamika-esque play to dialectically hold the elusive middle ground beyond both extremes.¹¹²

Avenarius feels at home with the idea that epistemological construction is a pragmatic process of evolutionary adaptation to experience. In a metaphor,

¹⁰⁹ AVENARIUS, *Philosophie als Denken der Welt*, *ibid.*, p. 58, my translation.

¹¹⁰ SOMMER, *Husserl und der Frühe Positivismus*, *ibid.*, pp. 69–70.

¹¹¹ STUBENBERG, *ibid.*

¹¹² SOMMER, *Husserl und der Frühe Positivismus*, *ibid.*, pp. 77–78.

3.3 Visions of *Vijñāptimātra* in Empiriocriticist Eyes

we build our sandcastles on shifting sand because we have to live somewhere and have no other building materials at hand. Avenarius argues that the conceptualizing of change and process requires that we posit fixed nuclei or absolutes as counterpoints to experiential flux, but regards these nuclei or fixed points as mere idealizations.¹¹³ In this respect, it is not unreasonable to characterize the Avenarian view as resembling a ontologically relativized Sautrāntika epistemology.

Avenarius' theory of the atom as an instrumental posit may be directly compared to Quine's view: "Positing does not stop with macroscopic physical objects. Objects at the atomic level and beyond are posited to make the laws of macroscopic objects, and ultimately the laws of experience, simpler and more manageable. . ."¹¹⁴

Though Quine has shed the sensationalist and phenomenalist trappings of empiriocriticism and early logical empiricism, in other respects, he is still holding to the course of the *via positivistica*. The empiriocriticist core of epistemological instrumentalism and fictionalism shines through, extending even to his views on physical objects. In a line that might have been taken straight from Vasubandhu's playbook, Quine states that "The myth of physical objects is epistemologically superior to most in that it has proved more efficacious than other myths as a device for working a manageable structure into the flux of experience."¹¹⁵

Admittedly, Quine is not making a direct argument against the transcendental object. But in cutting physical objects down to size as quasi-mythical mirages conjured by the theory-ladenness of common-sense realism, he is quite vigorously attacking the foundations of the metaphysical realist belief in objectivity. And if Quine is any judge, Vasubandhu's anti-atomism—far from being an antiquated relic of early medieval Indian philosophy—is of considerable relevance to contemporary philosophy.

¹¹³ AVENARIUS, *Philosophie als Denken der Welt*, *ibid.*, pp. 55–56.

¹¹⁴ QUINE, *ibid.*, p. 44.

¹¹⁵ QUINE, *ibid.*

4 The End of the End of Epistemology

I have a dream.

(Martin Luther King)

ARE THERE ANY PHILOSOPHICAL or ideo–historical conclusions of value that we can draw from the narrative sweep presented thus far? Possibly, our retracing of the evolutionary trajectory of Buddhist epistemology, beginning with phenomenistic realism and leading to idealist and skeptical positions of increasing critical refinement and rarefaction may add a mosaic piece or two to our picture of the historical development of occidental empiricism. To state the matter more boldly, the idea suggests itself that Buddhism affords to the modern mind the possibility of re-envisioning empiricism from the ground up, in the cloth of an alternate history of ideas. Anticipating the grand themes of the Western empiricist tradition by more than a millenium, the “empiricism of the East” presents us with a unique opportunity to re-experience our own philosophical genesis in a new and perhaps more humble light.

Against the realist’s objections, Vasubandhu proposes in **3** that the spatio-temporal determination of experience is as in a dream. Striking a chord across centuries and cultures, Mach dismisses the question of whether the world is real or whether we merely dream it as being devoid of scientific meaning. Epistemology is just as much an abstract inquiry into the conditions and possibilities of knowledge as a historical quest for philosophical beginnings—a trail that may lead us as readily to Mach’s 19th century Vienna as to the 4th century Puruṣapura of Vasubandhu, if we are prepared to follow it.

However, unlike the quest of Husserl in his *Cartesian Meditations* to regain the ground of first philosophy, a phenomenological beginning in transcen-

dental intersubjectivity,¹ the journey of Vasubandhu and Mach is more than anything else a voyage to epistemology's end. Each in their own way, they both attempt to recast empirical knowledge in light of its ultimate meaning. To Mach, the end of epistemology is its pragmatic purpose as the critical voice of scientific inquiry. To Vasubandhu, the end is a mystical and soteriological one—the cessation of innate ignorance (*avidya*) sought for by “the path of practice leading to the cessation of the cosmos.”²

4.1 Anti-Cartesian Meditations

Since we have not yet managed to touch upon any of the multifarious critiques that the Mind-Only standpoint of the *Viṃśatikā* has generated within Indian philosophy, I will round out the investigation with a brief recapitulation of some of the more interesting objections. Aside from the fairly predictable counter-arguments offered by the realist *darśanas* such as Nyāya-Vaiśeṣika and Mīmāṃsā, we find a number of critiques put forth by skeptical schools of thought such as Mādhyamika or by other idealisms, notably Advaita. It is illuminating to take notice of the fact that in the pre-scientific Indo-Tibetan philosophical tradition, the most devastating critiques of Mind-Only are the skeptical attacks on transcendental subjectivity while the realist defenses of objectivity are comparatively weak. Ironically, the situation in the West is exactly the other way around, as it would seem that scientific progress has catapulted realism into the pole position.

Advaita The Advaita Vedānta epistemology of Śaṅkara may be classified as a species of absolute monism with realistic tendencies. Although it quite evidently qualifies as a strong strain of idealism, Advaita insists on a separation of the subject and object within the domain of phenomenal experience.

Sinha observes that Śaṅkara's criticism of Mind-Only is not very thorough.³ Strangely, Śaṅkara does not offer any direct counter-argument to

¹HUSSERL, *ibid.*, pp. 160–161.

²BHIKKHU, Rohitassa Sutta, *ibid.*

³SINHA, *ibid.*, p. 227.

the Mind–Only thesis that external objects cannot exist due to the impossibility of atoms,⁴ despite that he was almost certainly aware of Vasubandhu’s argument against atomism. This circumstance severely reduces the force of Śaṅkara’s defense of objectivity.

The keystone of Śaṅkara’s critique is the “phenomenological argument.” He points out that sensory perception establishes the existence of the external world, as we perceive external objects such as a table or a tree.⁵ This seems like Śaṅkara is attempting a Moorean proof of the external object by appeal to common-sense evidence.

But what is preventing us from having intentional states directed at some impossible object, e.g. a “square circle?” Given that it is entirely possible to think about absistents, the externality of a percept could very well be a sort of absistent property, such as the “squareness” of a circular patch of color. From the presence of an external world to intentional awareness, we cannot deduce that it exists, any more than we ontologically commits ourselves to the existence of a hare’s horns simply because we are able to think about them. In a Meinongian sense, it is perfectly reasonable to speak of the non–externality of a perceived object.

In another argument, Śaṅkara attempts to turn the tables on the idealist, by asking: if one admits consciousness, why not external objects? The Mind–Only proponent’s assertion of the priority of inner over outer experience seems arbitrary, he argues.

While it is plausible to admit that one can represent in inner experience (i.e. dreams or hallucinations) objects that do not actually exist, it is not equally plausible to admit the converse hypothesis that there exist real objects not representable in inner experience. The Cittamātrin may therefore argue that the former simply expresses a familiar empirical fact, whereas the latter proposes a wildly metaphysical theory—the two cases are very different in nature and far from being symmetrically interchangeable, as Śaṅkara would suggest.

⁴SINHA, *ibid.*, p. 230.

⁵See GUPTA, *ibid.*, p. 85 and ELIOT DEUTSCH, *Advaita Vedanta: A Philosophical Reconstruction*. University of Hawaii Press, 1969, pp. 95–96.

Śaṅkara trots out a number of further arguments against Mind–Only, none of which are especially memorable. He does, however, unfold a critique of self–reflexive awareness (*svasamvedana*) very much resembling the Mādhyamika argument put forth by Candrakīrti: Just as the light shining from a lamp can illuminate other objects, but not itself, or the blade of a sword can only cut other objects, a self–reflexive awareness would entail the absurdity of something acting upon itself. Although Śaṅkara’s critique of the Mind–Only position on objectivity fails to be convincing, his criticisms of transcendental subjectivity come a great deal closer to striking at the Achilles heel.

Mādhyamika Tsongkhapa contends that while Vasubandhu’s argument against atomism is valid, it misses the mark. Essence or own–nature (*svabhāva*) is the category that is in need of refutation, not substance (*dravya*). The refutation of atoms fails to knock out this vastly more crucial and elusive target, because atoms are only superficial cognitive misconceptions generated by metaphysical doctrines, whereas *svabhāva* is an innate misconception deeply entrenched in pre–philosophical common–sense intuition.⁶

Since the concept of partless simples does not enter into our ordinary experience, which is after all informed by the pre–philosophical intuitions of common–sense realism, Tsongkhapa argues that while Vasubandhu’s refutation of atomism is all very well and good, its skeptical force is not strong enough to damage the object of the Mādhyamika critique of substantialism. In modern terminology, perhaps Tsongkhapa’s distinction of *dravya* and *svabhāva* may be read along similar lines to the distinction of the existence and the independence dimensions of realism. Evidently, he believes the independence dimension to be the more challenging target, and the soteriologically more rewarding one.

We may note that nowhere in the post–Vasubandhu philosophy of Mahāyāna are there any novel defenses of atomism to be found (with the possible exception of the late Sautrāntika atomism), nor do we find any novel anti–

⁶JEFFREY HOPKINS, *Emptiness in the Mind-Only School of Buddhism: Dynamic Responses to Dzong-ka-ba’s The Essence of Eloquence: I*. Boston: University of California Press, 1999, pp. 338–339.

atomist arguments. This conspicuous absence of further development in the issue might indicate that Vasubandhu’s victory over atomist realism was considered by Mahāyānists to be so overwhelming that nothing needed to be added to it.

In the sixth chapter of the *Madhyamakāvatāra*, Candrakīrti unleashes a scathing barrage of Mādhyamika arguments against the the Mind–Only position.⁷ These may be roughly classified into four main groups: (1) the refutation of the nonexternality of sense–objects, (2) the failure of mental potentials to account for sense–experiences, (3) counter–arguments to the dream theory of experience and the ultimate existence of the mind, and (4) the refutation of apperception.⁸ This classic critique of Candrakīrti is one of the philosophical crown jewels of the Tibetan Sarma traditions. It serves as a case in point for how the pure criticism of Mādhyamika builds on the Mind–Only position, as the full development of its skeptical force requires the deployment of a sufficiently similar position as an argumentative foil. While the polemic phraseology of the debate evokes the impression that the two positions are very remote from each other, on closer examination, the intimate resemblance of the Mind–Only position to the Mādhyamika view is what actually makes for the power of Candrakīrti’s argument.

In the *Tarkajvālā* (*Blaze of Reasoning*), the auto–commentary of his *Madhyamakahrdayakārikās* (*Heart Verses of the Middle Way*) the Mādhyamika scholar Bhāvaviveka proposes an intriguing argument against the Mind–Only strategy of accepting self–reflexive apperception as a provisional antidote to substantialism. Bhāvaviveka’s objection, which happens not to be among those presented by Candrakīrti, runs as follows:

If you think that external objects actually do not exist, why consider them part of consciousness? If you think that someone first treats them as part of consciousness, then uses another argument, other than [the argument] that they are part of consciousness, to refute [the idea that they are part of consciousness], it would be better to stay away from the mud and not to touch it than to wash

⁷CANDRAKĪRTI, *ibid.*, pp. 72–84.

⁸PETER G. FENNER, Candrakīrti’s refutation of Buddhist idealism. *Philosophy East and West*, 33 1983:3, p. 257–258.

4.1 Anti–Cartesian Meditations

it away. . . . It is as if a certain fool were to leave a clean road and enter an unclean, muddy river. Others might then ask him, “Why did you leave the clean road and enter the mud?” If he said, “So that I can wash it off,” the others would say, “You fool! If you have to wash it off, you should stay away from the mud and not touch it in the first place.”⁹

Unpacking this argument along Kantian lines, one may inquire: why postulate the self–reflexive awareness of percepts as an antidote (*pratipakṣa*) if one thereby accomplishes no more than to saddle oneself with an unnecessary *a priori* commitment to transcendental apperception?¹⁰ Kant acknowledges that although the transcendental apperception expressed in the proposition “I think” (“Ich denke”) is an empirical intuition, the concept of “I” fails to be an empirical concept because it is never met with in empirical experience.¹¹ In this light, the general tendency of the Mādhyamika critique of self–reflexive awareness may be outlined as follows: Because the “I” is functionally equivalent to the transcendental apperception, it would be misleading to claim the possibility of an ego–less transcendental apperception, as does the Mind–Only.¹² And if self–reflexive awareness is not held to be transcendental, then it would have to be an empirical phenomenon like any other.¹³ It would be a contingent aspect of representations rather than the necessary condition of their possibility. But in this case, how can it be employed as an antidote for the reification of empirical phenomena,

⁹BHĀVAVIVEKA, cited in MALCOLM DAVID ECKEL, *Jñānagarbha’s Commentary on the Distinction between the Two Truths: An Eighth-Century Handbook of Madhyamaka Philosophy*. State University of New York Press, 1987, p. 18

¹⁰Viz. p. 29, footnote no. 87.

¹¹TOBIAS ROSEFELDT, *Das Logische Ich: Kant über den Gehalt des Begriffs von sich selbst*. Philo, 2000, p. 227.

¹²Given that the status of self–reflexive awareness is one of the major topics of controversy in Tibetan Mādhyamika (see e.g. PAUL WILLIAMS, *The Reflexive Nature of Awareness*. Motilal Banarsidass, 1998), the cursory reflections I am able to offer here cannot really touch on the underlying complexities of the debate.

¹³As is more or less the case in CARNAP, *Aufbau*, *ibid.*, p. 226, where it is pointed out that the elementary experience (*Elementarerlebnis*) has the nature of “Lichtenberg consciousness”—the “I” is logically constructed on a higher level of constitution. Vasubandhu might put it that the “I” is not epistemologically constituted, but rather, mistakenly retrodicted onto the fabric of experience, to wit, as a “false epitaph.” See also p. 25, footnote no. 72.

if the antidote itself is part of the what is being reified? A reified antidote is just what we don't want. The initial pseudo-problem of objectivity will have merely been exchanged for another one—the problem of transcendental subjectivity.

Bhāvaviveka's argument expresses in a nutshell the general thrust Mādhyamika "metacritique" of the Mind-Only *epoché* of objectivity. As a case of barking up the wrong philosophical tree, retreating up the epistemological ladder into inner experience is a soteriologically useless maneuver. But perhaps Bhāvaviveka's dismissal is premature—for without an adequate containment strategy for the metaphysical "virulence" of objectivity, scientific realism so resoundingly carries the show that a modern Mādhyamika-style critique of subjectivity¹⁴ and essence will never manage to get off the ground. Reified absolutes are poison to the Mādhyamika view, yet as we will see, 20th century theoretical physics inescapably suggests them.

4.2 The Empire Strikes Back and the Return of the Empiricists

Briefly turning our attention once more to Western philosophy of science, the meteoric rise to power of Mach-inspired logical empiricism was not always favorably received. It provoked a backlash among many experimental scientists, who preferred the more familiar model of critical realism. Planck may be identified as an influential example of this "reactionary" tendency. He mounted a spirited defense of objectivity and absolutes against the instrumentalist and relativist tendencies of positivism: "That we do not create the external world for reasons of convenience, but rather, that it impresses itself upon us with elementary force is a point which, in our positivistically influenced day and age, may not remain an unspoken matter of course."¹⁵

This statement is an obvious gibe against Mach's instrumentalist views on the status of the external world. Planck points out how the progress of

¹⁴See CANDRAKĪRTI, *ibid.*, p. 85, *kārikā* 120: "This self [of the transitory composite] is what the yogi will disprove."

¹⁵MAX PLANCK, *Vom Relativen zum Absoluten*. in: *Vorträge - Reden - Erinnerungen*. Springer-Verlag, 2001, p. 116–117, my translation.

physical science has enabled absolute values to be established for quantities that were previously believed to be definable only as relative differences, notably energy and entropy.¹⁶ In classical mechanics, only energy differences can be measured, and while energy is a conserved quantity, the idea of an absolute value of energy has no significance within the theory. However, Einstein's theory of special relativity fixes an absolute value for the resting energy of an object (the famous equation $E = mc^2$). Similarly, even though the descriptive force of classical thermodynamics is only sufficient to account for entropy differences, the introduction of the quantum hypothesis permits an absolute value to be derived for the entropy of a system $S = k \log W$ (where W is the number of microstates corresponding to the macrostate of the system), as W then comes to be discrete.¹⁷

As Planck delineates, the development of physical theories proceeds from the differential to the integral¹⁸ and from relative quantities to absolutes.¹⁹ The absolutes of Newtonian space and time have been relativized,²⁰ only to re-establish the absolute on a more fundamental level as the metric of space–time (the speed of light in vacuum c).²¹

Planck holds the principle of transcendental objectivity to be the foundation and *raison d'être* of physics. Even though he concedes that physical theory will never be absolutely complete and certain, he optimistically believes that it is possible to obtain asymptotically close knowledge of absolute reality.²² In sum, Planck's considerations pose a very serious challenge to Mach's empiricism of radical relativity.

An empiricist counter–attack might be organized along two dimensions—(1) the observational underdetermination and (2) the semantic incompleteness of empirical theories. In (1), the Quine–Duhem thesis can be brought to

¹⁶PLANCK, *ibid.*, pp. 110–112.

¹⁷See PLANCK, *ibid.*, p. 113.

¹⁸PLANCK, *ibid.*, p. 111.

¹⁹PLANCK, *ibid.*, p. 114.

²⁰Special relativity agrees with Nāgārjuna that absolute motion is incoherent (as according to Nagarjuna's Examination of Motion in GARFIELD, *The Fundamental Wisdom*, *ibid.*, pp. 124–135). The Einsteinian theory of motion might seem like great news to the Mādhyamika—until the absolute resting energy of objects is brought into play. Substance is back with a vengeance, and threatens to crash the Mādhyamika's party for good.

²¹PLANCK, *Vom Relativen zum Absoluten*, *ibid.*, p. 116.

²²PLANCK, *ibid.*, p. 117.

4.3 Concluding Reflections

bear against the notion that theories can asymptotically approximate reality. As for (2), Gödelian reasoning can be deployed to show that since a theory cannot internally prove its own consistency, there is no absolute sense in which it can be said to have a model.

A metatheoretically reflecting empiricism will come, on a métaphysical or epistemological level of reflection, to relativize the objectivity of physical absolutes to the theory they are posited by, just as it relativizes the concepts of analyticity, apriority (etc.) to some theoretical or metatheoretical language.²³ The model empiricist may venture that the Planckian critical realist notion of absolute objectivity is no more intelligible than the idea of a universal metalanguage or an ultimate level of reflection.

4.3 Concluding Reflections

On any scale, the charting of a possible course from 4th century Indian idealism to contemporary philosophy of science would make for an immensely ambitious undertaking. In an effort to advance through the subject matter at a reasonable pace, I have largely glossed over many noteworthy and distinctive features of Vasubandhu's thought. The Yogācāra theories of *karma* and causality have received especially short shrift. The nature of the investigation has required a perhaps overly large amount of historical glossing and hermeneutic circling, necessarily at the expense of rigorous analytic reconstruction.

Despite that much of the precision inherent in the Buddhist philosophical terminology of Vasubandhu's era has been lost in the mists of time, more effort could and should have been invested in clarifying the technical meanings of terms. By its very nature, comparative philosophy is a hermeneutic transaction *in medias res*. To be able to say anything whatsoever, one needs to keep one's meanings fluid. Interpretation to a certain extent trades in suggestive ambiguities. But if meanings are too fluid, one becomes guilty of fitting the evidence to the theory. The deployment of a semi-formalized philosophical precision language is really the only answer to this dilemma,

²³ESSLER, *Unser die Welt*, *ibid.*, p. 86.

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though in my defense, such a strongly structured approach would not have been appropriate to the intended scale of the investigation.

As far as possible, I have tried to compensate my lack of philological competence in the original languages of Indian philosophy with rational interpolation. When working with classical texts, this is really the only conceivable strength a philosopher can play to *vis-à-vis* an expert philologist.

Regarding the aims and tasks of the investigation, I believe that I have taken a sufficiently broad and deep cross-section of the subject matter for me to be able to hope to have extracted an acceptable fraction of the philosophical import of Vasubandu's arguments against atomism. Overall, I think that the goal to strike a balance between a presentation of the arguments in historical perspective and a demonstration of their relevance to contemporary epistemology has been accomplished.

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Bibliography

- Anacker, Stefan**, Seven Works of Vasubandhu: The Buddhist Psychological Doctor. New Delhi: Motilal Banarsidass, 1998.
- Anuruddha; Bodhi, Bhikkhu, editor**, Abhidhammatthasangaha: A comprehensive manual of Abhidhamma. BPS Pariyatti Editions, 2000.
- Arnold, Dan**, Madhyamaka. in: Internet Encyclopedia of Philosophy.
(URL: <http://www.iep.utm.edu>) – accessed on April 12, 2008.
- Asanga**, Abhidarmasamuccaya. Asian Humanities Press, 2001.
- Audi, Robert, editor**, The Cambridge Dictionary of Philosophy. Cambridge University Press, 1994.
- Avenarius, Richard**, Kritik der Reinen Erfahrung. Volume I, Georg Olms Verlag, 2004.
- Avenarius, Richard**, Kritik der Reinen Erfahrung. Volume II, Georg Olms Verlag, 2004.
- Avenarius, Richard**, Philosophie als Denken der Welt gemäß dem Prinzip des kleinsten Kraftmaßes. Edition Classic Verlag Dr. Müller, 2006.
- Ayer, A. J.**, Phenomenalism. in: Philosophical Essays. Macmillan Press, 1954, 125–166.
- Ayer, A. J.**, The Terminology of Sense-Data. in: Philosophical Essays. Macmillan Press, 1954, 66–104.
- Ayer, A. J.**, Hume. Oxford University Press, 1980.
- Barrow, John D.**, The Universe That Discovered Itself. Oxford University Press, 2000.
- Bastow, David**, The Mahā-Vibhāsā Arguments for Sarvāstivāda. Philosophy East and West, 44 1994:3, 489–499.
- Becker, Martin**, Zum Begriff der Genidentität - Eine Untersuchung der Wissenschaftstheoretischen Schriften von Kurt Lewin. Master's thesis, Johann Wolfgang Goethe University, Frankfurt am Main, 1998.

Bibliography

- Berzin, Alexander**, Basic Features of the Gelug-Chittamatra System.
⟨URL: http://www.berzinarchives.com/sutra/sutra_level_5/basic_feat_gelug_chittamatra_1.html⟩ – accessed on April 11, 2008.
- Bhikkhu, Thanissaro**, MN 72. Online ⟨URL: <http://www.accesstoinsight.org/tipitaka/mn/mn.072.than.html>⟩ – accessed on June 23, 2008.
- Bhikkhu, Thanissaro**, Rohitassa Sutta - AN 4.45 (PTS: A ii 47). Online ⟨URL: <http://www.accesstoinsight.org/tipitaka/kn/ud/ud.1.10.than.html>⟩ – accessed on June 21, 2008.
- Bhikkhu, Thanissaro**, Ud 1.10 Bahiya Sutta. ⟨URL: <http://www.accesstoinsight.org/tipitaka/kn/ud/ud.1.10.than.html>⟩ – accessed on June 21, 2008.
- Bhikkhu, Thanissaro**, Vajira Sutta [Please insert “PrerenderUnicode–” into preamble] SN 5.10. Online ⟨URL: <http://www.accesstoinsight.org/tipitaka/sn/sn05/sn05.010.bodh.html>⟩ – accessed on June 21, 2008.
- Blumenthal, James**, The Ornament of the Middle Way: A study of the Madhyamaka Thought of Santaraksita. Snow Lion Publications, 2004.
- Bostrom, Nick**, Are You Living in a Computer Simulation? *Philosophical Quarterly*, 53 2003, 243–255.
- Brown, Jason**, Microgenesis and Buddhism: The Concept of Momentariness. *Philosophy East and West*, 49 1999:3, 261–277.
- Buescher, John B.**, Echoes from an Empty Sky - the Origins of the Buddhist Doctrine of the Two Truths. Snow Lion Publications, 2005.
- Bäumer, Bettina**, Upanishaden: Befreiung zum Sein. Wilhelm Heyne Verlag, 1994.
- Candrakīrti**, Introduction to the Middle Way: Candrakīrti’s Madhyamakavatara, with commentary by Ju Mipham. Shambhala, 2002.
- Carnap, Rudolf**, Abriss der Logistik. Julius Springer, 1929.
- Carnap, Rudolf**, Der Logische Aufbau der Welt. Felix Meiner Verlag, 1998.

Bibliography

- Chalmers, David**, *The Matrix as Metaphysics*. [⟨URL: http://consc.net/papers/matrix.html⟩](http://consc.net/papers/matrix.html) – accessed on May 11, 2008.
- Chatterjee, A. K.**, *The Yogācāra Idealism*. Motilal Banarsidass, 1975.
- Chinchore, Mangala R.**, *Aniccatā/Anityatā - An Analysis of the Buddhist Opposition to Permanence/Stability and Alternative Foundation to Ontology and/or Anthropology*. Sri Satguru Publications, 1995.
- Cohen, Stewart**, *Justification and Truth*. *Philosophical Studies*, 46 1984, 279–296.
- Deutsch, Eliot**, *Advaita Vedanta: A Philosophical Reconstruction*. University of Hawaii Press, 1969.
- Dicker, Georges**, *Kant's Refutation of Idealism*. *Nous*, 42:1 2008, 80–108.
- Dragonetti, Carmen and Tola, Fernando**, *Being as Consciousness*. New Delhi: Motilal Banarsidass, 2004.
- Durland, Káránn**, *Hume's First Principle, His Missing Shade, and His Distinctions of Reason*. *Hume Studies*, XXII 1996:1, 105–121.
- Eckel, Malcolm David**, *Jñānagarbha's Commentary on the Distinction between the Two Truths: An Eighth-Century Handbook of Madhyamaka Philosophy*. State University of New York Press, 1987.
- Essler, Wilhelm K.**, *Analytische Philosophie I*. Alfred Kröner Verlag, 1972.
- Essler, Wilhelm K.; Preyer, Gerhard, editor**, *Unser die Welt*. Humanities Online, 2001 [⟨URL: http://publikationen.ub.uni-frankfurt.de/volltexte/2007/4545/pdf/Essler_UDW_ccl.pdf⟩](http://publikationen.ub.uni-frankfurt.de/volltexte/2007/4545/pdf/Essler_UDW_ccl.pdf) – accessed on June 26, 2008.
- Essler, Wilhelm K.**, *On Absoluteness and Relativity: Modern Philosophy in Ancient Times*. Online, March 2007 [⟨URL: http://www.vfphil.de/pdf/essler-vortrag-delhi.pdf⟩](http://www.vfphil.de/pdf/essler-vortrag-delhi.pdf) – accessed on July 3, 2008.
- Essler, Wilhelm K., Labude, Joachim and Ucsnay, Stefanie**, *Theorie und Erfahrung*. Alber, 2000.
- Essler, Wilhelm K. and Mamat, Ulrich**, *Die Philosophie des Buddhismus*. Wissenschaftliche Buchgesellschaft, 2005.

Bibliography

- Fenner, Peter G.**, Candrakīrti's refutation of Buddhist idealism. *Philosophy East and West*, 33 1983:3, 251–261.
- Findlay, J. N.**, Kant and the Transcendental Object. Clarendon Press, 1981.
- Fogelin, Robert J.**, Pyrrhonian Reflections on Knowledge and Justification. Oxford University Press, 1994.
- Frauwallner, Erich**, Die Philosophie des Buddhismus. Akademie-Verlag, 1969.
- Frauwallner, Erich**, Die Entstehung der buddhistischen Systeme. in: Nachrichten der Akademie der Wissenschaften in Göttingen I. Philologisch-Historische Klasse. Vandenhoeck & Ruprecht, 1971, 115–127.
- Frauwallner, Erich; Steinkellner, Ernst and Kidd, Sophie Francis, editors**, Studies in Abhidharma Literature and the Origins of Buddhist Philosophical Systems. State University of New York Press, 1995.
- Garfield, Jay L.**, The Fundamental Wisdom of the Middle Way: Nāgārjuna's Mūlamadhyamakakārikā. Oxford University Press, 1995.
- Garfield, Jay L.**, Vasubandhu's 'Treatise on the Three Natures' translated from the Tibetan edition with a commentary. *Asian Philosophy*, 6 1997:2, 133–154.
- Garfield, Jay L.**, Western idealism through Indian eyes: A Cittamātra reading of Berkeley, Kant and Schopenhauer. *Sophia*, 31 1998:1, 10–41.
- Garfield, Jay L.**, Empty Words: Buddhist Philosophy and Cross-Cultural Interpretation. Oxford University Press, 2001.
- Garfield, Jay L.**, Western Idealism through Indian Eyes: A Cittamatra Reading of Berkeley, Kant, and Schopenhauer. in: **Garfield, Jay L., editor**: Empty Words: Buddhist Philosophy and Cross-Cultural Interpretation. Oxford University Press, 2001, 152–169.
- Garfield, Jay L.**, Reductionism and Fictionalism: Comment on Siderits' "Personal Identity and Buddhist Philosophy". Online, 2008 (URL: <http://www.smith.edu/philosophy/documents/ReductionismandFictionalism.pdf>) – accessed on July 7, 2008.

Bibliography

- Goodman, Nelson**, *Ways of Worldmaking*. Hackett Publishing Company, 1978.
- Grier, Michelle**, Kant's Critique of Metaphysics. in: **Zalta, Edward N., editor**: *The Stanford Encyclopedia of Philosophy*. Spring 2007 (URL: <http://plato.stanford.edu/archives/spr2007/entries/kant-metaphysics/>) – accessed on July 3, 2008.
- Grim, Patrick**, *The Incomplete Universe: Totality, Knowledge, and Truth*. MIT Press, 1991.
- Grupp, Jeffrey**, The R-theory of Time, or Replacement Presentism: The Buddhist Philosophy of Time. *Indian International Journal of Buddhist Studies*, 6 2005, 51–122.
- Grupp, Jeffrey**, Mereological nihilism: quantum atomism and the impossibility of material constitution. *Axiomathes*, 16 2006, 245–386.
- Grünbaum, Adolf**, *Modern Science and Zeno's Paradoxes*. George Allen and Unwin, 1968.
- Guenther, Herbert V.**, *Philosophy and Psychology in the Abhidharma*. Shambhala Publications, 1976.
- Guenther, Herbert V.**, Mentalism and Beyond in Buddhist Philosophy. in: **Guenther, Herbert V., editor**: *Tibetan Buddhism in Western Perspective: Collected Articles of Herbert V. Guenther*. Shambhala Publications, 1977.
- Gupta, Bina**, *Cit Consciousness*. Boston: Oxford University Press, 2003.
- Guyer, Paul**, The Postulates of Empirical Thinking in General and the Refutation of Idealism (A218/B265-A235/B294). in: **Mohr, Georg and Willaschek, Marcus, editors**: *Immanuel Kant, Kritik der Reinen Vernunft*. Akademie Verlag, 1998.
- Harris, Ian Charles**, *The Continuity of Madhyamaka and Yogācāra in Indian Mahāyāna Buddhism*. E.J. Brill, 1991.
- Hermes, Hans**, *Eine Axiomatisierung der allgemeinen Mechanik*. Hirzel, 1938.
- Hiriyanna, M.**, *The Essentials of Indian Philosophy*. Motilal Banarsidass, 1995.

Bibliography

- Hoheisel, Claus**, Physik und verwandte Wissenschaften in Robert Musils Roman 'Der Mann ohne Eigenschaften'. (dmoe) Ein Kommentar. Ph. D thesis, Ruhr-Universität Bochum, 2003, [URL: https://eldorado.uni-dortmund.de/dspace/bitstream/2003/2959/2/hoheisel2.pdf](https://eldorado.uni-dortmund.de/dspace/bitstream/2003/2959/2/hoheisel2.pdf).
- Hopkins, Jeffrey**, Meditation on Emptiness. Boston: Wisdom Publications, 1996.
- Hopkins, Jeffrey**, Emptiness in the Mind-Only School of Buddhism: Dynamic Responses to Dzong-ka-ba's The Essence of Eloquence: I. Boston: University of California Press, 1999.
- Hopkins, Jeffrey**, Maps of the Profound: Jamyang Shayba's Great Exposition of Buddhist and Non-Buddhist Views on the Nature of Reality. Snow Lion Publications, 2004.
- Hopkins, Jeffrey**, Absorption in No External World: 170 Issues in Mind Only Buddhism (Dynamic Responses to Dzong-Ka-Ba's the Essence of Eloquence). Snow Lion Publications, 2006.
- Hossenfelder, Malte**, Kants Konstitutionstheorie und die Transzendente Deduktion. Walter de Gruyter, 1978.
- Huemer, Michael**, Sense-Data. in: **Zalta, Edward N., editor**: The Stanford Encyclopedia of Philosophy. Fall 2007 [URL: http://plato.stanford.edu/archives/fall2007/sense-data/](http://plato.stanford.edu/archives/fall2007/sense-data/) – accessed on July 6, 2008.
- Huggett, Nick**, Zeno's Paradoxes. in: **Zalta, Edward N., editor**: The Stanford Encyclopedia of Philosophy. Winter 2006 [URL: http://plato.stanford.edu/archives/win2006/entries/paradox-zeno/](http://plato.stanford.edu/archives/win2006/entries/paradox-zeno/) – accessed on July 3, 2008.
- Husserl, Edmund; Ströker, Elisabeth, editor**, Cartesianische Meditationen: Eine Einleitung in die Phänomenologie. Felix Meiner Verlag, 1995.
- Ingalls, Daniel H.H.**, Śaṅkara's Arguments Against the Buddhist. Philosophy East and West, 3 1954:4, 291–306.
- Inwagen, Peter van**, Material Beings. Cornell University Press, 1995.

- Jain, L.C. and Patni, G.C.**, Exact Sciences from Jaina Sources Vol. 2: Astronomy and Cosmology. Rajasthan Prakrit Bharti Sansthan, Jaipur; Sitaram Bhartia Institute of Scientific Research, New Delhi, 1983.
- Kalupahana, David J.**, A Buddhist Tract on Empiricism. *Philosophy East and West*, 19 1969:1, 65–67.
- Kant, Immanuel; Weischedel, Wilhelm, editor**, Kritik der Reinen Vernunft. Volume 2, Suhrkamp-Taschenbuch Wissenschaft, 1980.
- Kapstein, Matthew**, Mereological Considerations in Vasubandhu’s “Proof of Idealism”. in: Reason’s Traces: Identity and Interpretation in Indian and Tibetan Buddhist Thought. Oxford University Press, 2001.
- Karunadasa, Y.**, Time and Space: The Abhidhamma Perspective - Professor K. N. Jayatilleke Memorial Lecture 2003. 2003 (URL: <http://www.lankalibrary.com/Bud/time.htm>) – accessed on April 12, 2008.
- King, Richard**, Early Yogacara and its Relationship with the Madhyamaka School. *Philosophy East & West* October 1994.
- King, Richard**, Vijnaptimatratā and the Abhidharma Context of Early Yogacara. *Asian Philosophy* March 1998.
- Klein, Anne C.**, Knowledge and Liberation: Tibetan Buddhist Epistemology in Support of Transformative Religious Experience. Snow Lion Publications, 1986.
- Klein, Anne C.**, Knowing, Naming and Negation: A Sourcebook on Tibetan Sautrantika (Translations in Indo-Tibetan Buddhism). Snow Lion Publications, 1991.
- Kochumuttom, Thomas A.**, Buddhist Doctrine of Experience: A New Translation and Interpretation of the Works of Vasubandhu. New Delhi: Motilal Banarsidass, 1989.
- Lewin, Kurt**, Der Begriff der Genese in Physik, Biologie und Entwicklungsgeschichte. in: **Métraux, Alexandre, editor:** Werkausgabe. Volume 2, Klett-Cotta, 1983, 47–318.
- Lindstrom, Jeff**, Imaginations of the Unreal: Modern Interpretations of Yogacara’s “Idealism”. 2002 (URL:

Bibliography

- http://individual.utoronto.ca/jlindstrom/coursework/yogacara_essay_2001_12_19.htm – accessed on July 10, 2008.
- Lusthaus, Dan**, *The Crux of the Yogacara Project*. August 2004 (URL: <http://www.bu.edu/religion/faculty/bios/Lusthaus/yogacara\%20crux.pdf>) – accessed on July 3, 2008.
- Mabbett, Ian W.**, *Nāgārjuna and Deconstruction*. in: *Buddhisms and Deconstructions*. Rowman and Littlefield, 2006.
- Mach, Ernst**, *Die Analyse der Empfindungen und das Verhältnis des Physischen zum Psychischen*. Edition Classic Verlag Dr. Müller, 2006.
- Matilal, Bimal K.**, *Error and Truth - Classical Indian Theories*. *Philosophy East and West*, 31 März 1981:2, 215–224.
- Matilal, Bimal K.**, *Perception: An Essay on Classical Indian Theories of Knowledge*. Oxford University Press, 1986.
- McDermott, A. Charlene**, *The Sautrāntika Arguments against the Traikālyavāda in the Light of the Contemporary Tense Revolution*. *Philosophy East and West*, 24 1974:2, 193–200.
- Mejor, Marek**, *Vasubandhu's Abhidharmakośa and the Commentaries preserved in the Tanjur*. Franz Steiner Verlag, 1991.
- Murti, T. R. V.**, *The Central Philosophy of Buddhism: A Study of the Madhyamika System*. George Allen and Unwin, 1974.
- Murzi, Mauro**, *Rudolf Carnap (1891-1970)*. in: *Internet Encyclopedia of Philosophy*. (URL: <http://www.iep.utm.edu>) – accessed on July 4, 2008.
- Musil, Robert**, *Beitrag zur Beurteilung der Lehren Machs und Studien zur Technik und Psychotechnik*. Rohwolt, 1980.
- Nagao, Gadjin M.; Kawamura, Leslie and Nagao, Gadjin M., editors**, *Mādhyamika and Yogācāra: A Study of Mahāyāna Philosophies*. SUNY Series in Buddhist Studies, 1991.
- Narain, Harsh**, *The Madhyamika Mind*. Motilal Banarsidass, 1997.
- Oetke, Claus**, *"Ich" und das Ich: Analytische Untersuchungen zur buddhistisch-brahmanischen Atmankontroverse*. Franz Steiner Verlag, 1988.

- Oetke, Claus; Steinkellner, Ernst, editor**, Bemerkungen zur Buddhistischen Doktrin der Momentanheit des Seienden: Dharmakīrtis Sattvānumāna. Arbeitskreis für Tibetische und Buddhistische Studien, 1993.
- Olson, Robert F.**, Candrakīrti's Critique of Vijñānavāda. *Philosophy East and West*, 24 1977:4, 405–411.
- Panikkar, Raimon**, Gottes Schweigen. Die Antwort des Buddha für unsere Zeit. Fischer Taschenbuch Verlag, 1996.
- Parfit, Derek**, *Reasons and Persons*. Clarendon Press, 1984.
- Pinker, Steven**, *How The Mind Works*. W. W. Norton & Company, Inc., 1997.
- Planck, Max**, Scheinprobleme der Wissenschaft. in: *Vorträge - Reden - Erinnerungen*. Springer-Verlag, 2001.
- Planck, Max**, Vom Relativen zum Absoluten. in: *Vorträge - Reden - Erinnerungen*. Springer-Verlag, 2001.
- Potter, Karl H., editor**, *Encyclopaedia of Indian Philosophies: Buddhist Philosophy 100-350AD*. Volume 8, Motilal Banarsidass, 2002.
- Powers, John**, *Wisdom of Buddha: The Samdhinirmocana Sutra*. Dharma Publishing, 1995.
- Pyle, Andrew**, *Atomism and its Critics: From Democritus to Newton*. Thoemmes Press, 1997.
- Quine, Willard Van Orman**, Two Dogmas of Empiricism. in: *From a Logical Point of View: Nine Logico-Philosophical Essays*. Harvard University Press, 1971, 20–46.
- Ricard, Mathieu and Xuan Thuan, Trinh**, *The Quantum and the Lotus*. Three Rivers Press, 2004.
- Rosefeldt, Tobias**, *Das Logische Ich: Kant über den Gehalt des Begriffs von sich selbst*. Philo, 2000.
- Rospatt, Alexander von**, *The Buddhist Doctrine of Momentariness*. Franz Steiner Verlag, 1995.
- Śāntarākṣita and Mipham, Jamgön**, *The Adornment of the Middle Way*. Shambhala Publications, 2005.

Bibliography

- Santina, Peter della**, The Philosophy of Mind-Only. in: The Tree of Enlightenment. Online <URL: <http://www.ecst.csuchico.edu/~dsantina/tree/>> – accessed on April 12, 2008.
- Sarao, K. T. S.**, Vasubandhu. in: Internet Encyclopedia of Philosophy. 2006 <URL: <http://www.iep.utm.edu/>> – accessed on April 12, 2008.
- Schmauke, Stephan**, Wohlthätigste Verirrung: Kants kosmologische Antinomien. Verlag Königshausen & Neumann, 2002.
- Sellars, Wilfrid**, Kant's Transcendental Idealism. Collections of Philosophy, 6 1976, 165–181 <URL: <http://www.ditext.com/sellars/kti.html>> – accessed on July 15, 2008.
- Sharma, Chandradhar**, A Critical Survey of Indian Philosophy. Motilal Banarsidass, 2000.
- Sider, Ted**, Van Inwagen and the Possibility of Gunk. Analysis, 53(4) 1993, 285–289.
- Siderits, Mark**, Nagarjuna as anti-realist. Journal of Indian Philosophy, 18 1988, 311–325.
- Siderits, Mark**, Replies to Garfield, Taber and Arnold. APA Newsletters 6 2006:1.
- Siderits, Mark**, Buddhism as Philosophy: An Introduction. Ashgate Publishing Limited, 2007.
- Sinha, Jadunath**, Indian Realism. Motilal Banarsidass, 1999.
- Sommer, Manfred**, Husserl und der Frühe Positivismus. Vittorio Klostermann, 1985.
- Sommer, Manfred**, Evidenz im Augenblick: Eine Phänomenologie der Reinen Empfindung. Suhrkamp Verlag, 2001.
- Stcherbatsky, Theodor**, The Central Conception of Buddhism. New Delhi: Motilal Banarsidass, 1988.
- Stubenberg, Leopold**, Neutral Monism. in: **Zalta, Edward N., editor:** The Stanford Encyclopedia of Philosophy (Spring 2005 Edition). 2005 <URL: <http://plato.stanford.edu/archives/spr2005/entries/neutral-monism/>> – accessed on July 19, 2008.

Bibliography

- Tillemans, Tom J.F.**, Tibetan philosophy. in: **Craig, E., editor:** Routledge Encyclopedia of Philosophy. Routledge., 1998.
- Unger, Peter**, I do not Exist. in: **MacDonald, G. F., editor:** Perception and Identity: Essays Presented to A. J. Ayer with his Replies to them. Macmillan Press, 1979.
- Unger, Peter**, There are no ordinary things. *Synthese*, 41 1979:2, 117–154.
- Varzi, Achille**, Spatial Reasoning and Ontology: Parts, Wholes and Locations. in: **Aiello, M., Pratt-Hartmann, I. and Benthem, J. van, editors:** Handbook of Spatial Logics. Springer-Verlag, 2007
<URL: http://www.columbia.edu/~av72/papers/Space_2007.pdf> – accessed on June 28, 2008. – chapter 1.
- Vasubandhu**, Vimsatika Vijnaptimatratasiddhih. in: **Ruben, Walter, editor:** Texte der Indischen Philosophie. Volume 2, Akademie-Verlag, 1956, 366–383.
- Von Wright, Georg Henrik**, The Tree of Knowledge and Other Essays. Brill Academic Publishers, 1993.
- Wallace, B. Allan**, Choosing Reality: A Buddhist View of Physics and the Mind. Snow Lion Publications, 1996.
- Wayman, Alex**, The Yogācāra Idealism. *Philosophy East and West*, 15 1965, 65–73.
- Williams, Michael**, Problems of Knowledge. Oxford University Press, 2001.
- Williams, Paul**, On the Abhidharma ontology. *Journal of Indian Philosophy*, 9 1981, 227–257.
- Williams, Paul**, The Reflexive Nature of Awareness. Motilal Banarsidass, 1998.
- Wittgenstein, Ludwig; McGuinness, Brian and Schulte, Joachim, editors**, Logisch-philosophische Abhandlung: kritische Edition = Tractatus logico-philosophicus. Suhrkamp Verlag, 1989.
- Wolters, Gereon**, Mach I, Mach II, Einstein und die Relativitätstheorie: Eine Fälschung und ihre Folgen. Walter de Gruyter, 1987.

Bibliography

- Wood, Thomas E.**, *Mind Only: A Philosophical and Doctrinal Analysis of the Vijnanavada*. Motilal Banarsidass, 1994.
- Wood, Thomas E.**, *Nagarjunian Disputations: A Philosophical Journey through an Indian Looking-Glass*. University of Hawaii Press, 1995.
- Zimmerman, D.**, Could Extended Objects Be Made Out Of Simple Parts? An Argument For "Atomless Gunk". *Philosophy and Phenomenological Research*, 56 1996, 3–29.
- Zotz, Volker**, *Geschichte der buddhistischen Philosophie*. Rohwolt, 1996.
- Zuse, Konrad**, *Rechnender Raum*. Vieweg, 1969.

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Appendix

Zusammenfassung in deutscher Sprache

Kapitel 1 Die vorliegende Arbeit behandelt das Argument gegen den Atomismus aus den *Viṃśatikā Vijñaptimātratāsiddhi* (*Zwanzig Versen des Nur-Geistes*),¹ einer erkenntnistheoretischen Abhandlung des spätantiken indischen Philosophen Vasubandhu. Unter *Atomismus* wird hierbei durchgehend die Lehre vom Aufbau der Welt aus kleinsten, nicht weiter zerlegbaren Wirklichkeitsbestandteilen verstanden, wie sie im Altertum in verschiedentlicher Form von griechischen wie auch von indischen Weltanschauungslehren vertreten wurde.

Das Argument Vasubandhus berührt insbesondere die atomistischen Lehren der Vaibhāṣika- und Sautrāntika-Schulen der frühbuddhistischen Scholastik. Daher wird zunächst ein Abriss der Erkenntnistheorien dieser beiden Schulen des Abhidharma gegeben, wobei besonderes Augenmerk auf die kritische Entwicklungslinie ihrer Kategorienlehren in Bezug auf Raum, Zeit und Substanz gelegt wird. Durch diese vorbereitende Darlegung werden sowohl die philosophischen Hintergründe und Voraussetzungen der Argumentation Vasubandhus aufgedeckt als auch die vorzunehmende Interpretation seiner anti-atomistischen Wirklichkeitsauffassung im Lichte der empirikritizistischen Überwindung des Dings an sich untermauert. Die so gewonnene Sichtweise wird schließlich als Ausgangspunkt für transzendentalphilosophische Betrachtungen im Sinne der buddhistischen Erkenntnistheorie genutzt, wie etwa für Überlegungen über den Status der transzendentalen Apperzeption, die Konstitution von Erfahrungserkenntnis und die Aussagekraft skeptischer Argumente.

In der Einleitung werden zunächst einige Bemerkungen zur Person, zur Lebensgeschichte und zum philosophischen Schaffen Vasubandhus gemacht.

¹Im Folgenden als *Viṃśatikā* zitiert.

Es folgt anschließend ein Resümee der erkenntnistheoretisch relevanten Themen der *Viṃśatikā*, in dem Vasubandhus stark idealistisch eingefärbter Außenweltskeptizismus in Grundzügen sichtbar gemacht wird. Die Hauptthese Vasubandhus, die er gleich zu Anfang der *Viṃśatikā* aufstellt und im Verlauf der Abhandlung gegen realistische Einwände zu verteidigen sucht, ist das Prinzip der Traumartigkeit der Erfahrungserkenntnis. Damit soll im Wesentlichen gesagt werden, dass – trotz des gegenteiligen Anscheins – in der Erfahrung nirgends die Erkenntnis eines erkenntnisunabhängigen Gegenstands möglich ist. Vasubandhu stellt insbesondere die Erkenntnismöglichkeit einer metaphysisch gegebenen objektiven Außenwelt in Abrede und schlägt vor, dass eine intersubjektive Konstitution der Erfahrungsmannigfaltigkeit an dessen Stelle treten solle.

Auf die im Resümee herausgestellten Ergebnisse aufbauend lässt sich nun begründen, weshalb eine nähere Betrachtung der Argumente gegen den Atomismus von geistesgeschichtlichem und erkenntnistheoretischem Interesse ist. Ferner wird die zu verwendende hermeneutische Methode der Untersuchung – der interkulturelle Vergleich zum kritischen Realismus Kants und dem Empiriokritizismus seiner Nachfolger Avenarius und Mach – eingeführt. Durch den Vergleich sollen Bezugspunkte zur modernen Erkenntnistheorie und Wissenschaftsphilosophie geschaffen und die philosophische Relevanz der Ideen Vasubandhus klarer zur Geltung gebracht werden. Es werden dabei allerdings auch die methodischen Probleme eines solchen Deutungsansatzes berücksichtigt.

Um die Analyse der Atomismusargumente mit einer hermeneutischen Hintergrundstruktur zu unterfüttern, wird ein erster Brückenschlag zwischen der buddhistischen und der Mach'schen Erkenntnistheorie gewagt. Das Schweigen des Buddhas Gautama Śākyamuni zu den vierzehn metaphysischen Fragen wird zur Mach'schen Auffassung des Scheinproblems in Bezug gesetzt. Am so gedeuteten Mittelpunkt ereignis des Buddha-Schweigens wird die Hypothese abgelesen, dass der buddhistischen Erkenntnislehre empiristische und erkenntniskritische Momente zu Grunde liegen. Ganz nach Façon des logischen Empirismus wird im Zuge des Reflektierens über die Bedingungen und Möglichkeiten von Erfahrungserkenntnis Einsicht darüber gewonnen, dass über alles jenseits der Erkenntnisgrenzen

Liegende geschwiegen werden muss. Es wird die These entwickelt, dass das Buddha-Schweigen in seinem positivistischen Deutungssinn mit einer Urteilsenthaltung über das transzendental Objektive einhergeht, also unter die philosophische Figur der „Cartesischen *epoché*“ gefasst werden kann. Der erkenntnistheoretische Höhengewinn eines die Reflektion von Bedingung und Möglichkeit von Erfahrung erlaubenden Standpunktes geht mit einem Abwurf metaphysischen Ballasts einher, bzw. ist nur auf solchem cartesisch-skeptischen Wege zu erlangen.

Allerdings ist dabei noch zu berücksichtigen, dass das Hauptmoment der buddhistischen Soteriologie in ihrer Lehre vom Nicht-Selbst (*anatman*) und von der Leerheit der Erfahrungselemente liegt. Auch hier sind Parallelen zu einschlägigen empiristischen Anschauungen (etwa zur Bündeltheorie der Person) gegeben. In seiner mahāyānistischen Blüte entwickelt sich der der Leerheitsbegriff jedoch zu einer negativen Mystik und verlässt damit das Terrain der Erkenntnistheorie. Die reine *via negativa* ist nun neben der als gültig erachteten positivistischen Deutung die tiefere und eigentlichere Auslegungsmöglichkeit des Buddha-Schweigens, und lässt sich philosophisch gesehen mit einer *epoché* der transzendentalen Subjektivität in Deckung bringen.

Über ein positivistisches Schweigen kann auf höherer Reflektionsstufe noch nachgedacht und gesprochen werden, während sich das negativ-mystische Schweigen jeder Möglichkeit eines reflektierenden Zugangs entzieht. Die *epoché* des Objekts wird aber dadurch nicht hinfällig – sie gewinnt dadurch im Gegenteil ihren rechten Sinn als Propädeutik. Im Kontext der mahāyānistischen Erlösungslehre wird das vermeintlich absolut existierende Erkenntnisobjekt der Alltagserfahrung (wie auch die Erkenntnis selbst und letztlich auch jedes Reflektieren über Bedingung und Möglichkeit von Erkenntnis) als instrumentell aufgefasst. Ziel und Ende von Erkenntnis, wie auch das eigentliche Wesen von Erfahrung, sind mystisch und ungreifbar.

Die in den *Vimśatikā* von Vasubandhu entfaltete idealistische Erkenntnistheorie ist demnach von einem negativ-mystischen Letztsinn geleitet. Dieser Gesichtspunkt muss bei der Deutung seines rational-argumentativen Vorgehens in ebensolchem Maße wie die philosophischen Hintergründe der abhidharmischen Scholastik Berücksichtigung finden. Obgleich in Grund-

zügen vorhanden, kommt das mystische Moment bei Mach ungleich weniger deutlich zum Vorschein als bei Vasubandhu. Als positivistisch denkender Naturwissenschaftler begnügt er sich damit, den antimetaphysischen Standpunkt zu gewinnen. Von hier aus soll Physik auf eine Beschreibung des Funktionszusammenhangs der Empfindungen reduziert werden können. Dieser Mach'sche Phänomenalismus entspricht aber gerade jenem frühbuddhistischen Boden, der durch den Realismus der buddhistischen Scholastik verloren gegangen war und dessen Zurückgewinn von Vasubandhu verteidigt wird.

Kapitel 2 Solche weitgreifende Thesen verlangen natürlich nach einer ausführlicheren Begründung, die im Rahmen einer Begriffsklärung erfolgt. Die Kernbegriffe Realismus, Phänomenalismus und Nominalismus werden näher ausgeleuchtet. Der Brückenschlag von der buddhistischen zu einer radikal-empiristischen Erkenntnistheorie wird anhand einer Betrachtung ausgewählter frühbuddhistischer Lehrreden weiter vorangetrieben, die Parallelisierung zur Ideenwelt Machs erhärtet.

Die noch näher durchzuführende Darstellung vom Aufstieg und Fall des buddhistischen Sinnesdaten-Atomismus wird angerissen: Im Zuge einer fortschreitenden Zeitkritik wandelt sich innerhalb der Abhidharma-Schulen die Auffassung vom Objekt. Wo sich in der Vaibhāṣika-Schule das außenweltlich Objektive *progressiv* als begriffliche Beifügung zum letztlich seienden Empfindungsmosaik konstituiert, wird es bei den Sautrāntika in *regressiver* Weise gewonnen, d.h. als apriorisch zu denkender, letztlich seiender Kausalgrund von Empfindung (die nurmehr als in bloß begrifflich-beigefügter Weise seiend gilt) gesetzt. Diese philosophische Bewegung soll nun anhand modellhafter Rekonstruktionen der Erkenntnistheorien der Vaibhāṣika- und der Sautrāntika-Schulen eine weitere Untersuchung erfahren.

Zunächst werden jedoch die historischen Ursprünge des indischen Atomismus in der nicht-buddhistischen Vaiśeṣika-Schule gesucht und die Atomtheorie dieser Schule in Grundzügen skizziert – sowohl um eine Verständnisgrundlage für die im Folgenden nachzuzeichnenden Entwicklungen der buddhistischen Schulen an die Hand zu geben als auch um die zentrale Kontrastfigur für Vasubandhus anti-atomistische Argumentation aufzu-

stellen. Der Einfluss der realistischen Vaiśeṣika-Metaphysik stellt einen möglichen Grund für die Entfaltung atomistischer Lehren innerhalb der ursprünglich nicht-atomistischen Erkenntnistheorie des Buddhismus dar, aber es sind auch Herleitungen aus phänomenalistischen oder nominalistischen Gesichtspunkten denkbar.

Im Atomismus der Vaibhāṣika-Schule sind realistische, phänomenalistische und nominalistische Einflüsse in mehr oder minder starkem Ausmaße zur Ausprägung gekommen. Lehrmeinung des Vaibhāṣika ist eine zweigliedrige Wahrnehmungstheorie. Demnach entsteht Erkenntnis im unmittelbaren Kontakt der Bewusstseinsmomente zu den Empfindungsatomen, die als letztlich seiende Substanzen im absoluten Raum aufgefasst werden. Diese Atomlehre ist im Rahmen enzyklopädischer Systematisierungen des Abhidharma dargestellt worden und teilt sich anhand dessen in drei Entwicklungsphasen auf. Die dritte, abschließende Stufe dieser Entwicklung ist in Vasubandhus *Abhidharmakośa* sowie im *Nyāyānusāra*, der Replik seines Lehrers und Kontrahenten Saṅghabhadra, gegeben.

Die Vaibhāṣikas vertraten eine Lehre von der Existenz in Vergangenheit, Gegenwart und Zukunft, und entwickelten vier Zeittheorien. Diese Theorien sowie ihre Kritiken werden etwas ausführlicher dargestellt, wobei Parallelen zur modernen westlichen Philosophie gezogen werden, etwa zur Zeitkritik McTaggarts. Es wird eine Rekonstruktion der Zeittheorie des Vasumitra vorgenommen, welche versucht, Zeitlichkeit als Modus von Aktualität und Existenz in Vergangenheit und Zukunft mit einem modalen Realismus zu fassen.

Die Theorie der Vaibhāṣika von den Empfindungsatomen wird ausgeführt und mit dem Hume'schen Sinnesdaten-Atomismus verglichen. Es folgt eine kritische Betrachtung der dargestellten Lehren, die zum Standpunkt der frühen Sautrāntika-Schule überleitet.

Die Anschauungen der Sautrāntikas zeichnen sich gegenüber den Theorien der Vaibhāṣikas im Wesentlichen durch zwei Neuerungen aus – den Repräsentationalismus sowie die Lehre von der Momentanheit des Seienden. Darunter wird der Ineinsfall von Zeitlichkeit und Kausalfunktion mit dem Wesen des Seienden verstanden. Da die Sautrāntika sogar den augen-

blicklichen zeitlichen Bestand ablehnen, entsteht damit eine Auffassung von Atomen als augenblicklich-flusshafte Reizimpulse.

Die Sautrāntika vertreten eine Korrespondenztheorie der Erkenntnis – eine wahrheitsgemäße Empfindung ist demnach eine solche, die mit ihrer letztlich seienden, augenblicklich-flusshaften Reizgrundlage übereinstimmt. Die Reizatome werden den Kant'schen Dingen an sich gegenübergestellt und dieser Vergleich wird problematisiert. Die Sautrāntika-Lehre der irrealen Wahrnehmungssynthese durch begriffliche Einbildungskraft wird beleuchtet, um den Unterscheid zum Synthesebegriff Kants zu unterstreichen.

Die Atomlehre der späten Sautrāntika-Phase, in der nur noch von logisch partikularen Augenblicklichkeitspunkten die Rede ist, wird im Ansatz vorgestellt und mit dem Elementarerlebnis Carnaps verglichen. Die Theorie der Augenblicklichkeitspunkte ist nicht von der Atomkritik Vasubandhus betroffen, da sie sich von der Vorstellung der Substanzhaftigkeit und räumlichen Ausdehnung des Atoms gelöst hat.

Es folgt eine Zusammenfassung und kritische Würdigung der Erkenntnistheorie der Sautrāntika-Schule. Es werden Unstimmigkeiten an ihrer repräsentationalistischen Erkenntnistheorie aufgezeigt, die auf die Notwendigkeit einer gänzlichen Aufgabe des außenweltlichen Objekts (wie dies von der Nur-Geist-Schule schließlich vollzogen wird) hindeuten.

Kapitel 3 Die idealistische Lesart der Nur-Geist-Lehre wird zu Anfang programmatisch in den Vordergrund gestellt. Die Betrachtung geht zu einer Unterscheidung der wichtigsten historischen Entwicklungslinien der Nur-Geist-Schule über. Als nächstes wird die revisionistische Linie der modernen Rezeptionsgeschichte im Groben dargestellt. Es folgt eine nähere Erläuterung der drei einflussreichsten revisionistischen Lesarten. Diese deuten die Erkenntnistheorie der Nur-Geist-Schule im Wesentlichen als phänomenologische Spielart des kritischen Realismus. Die Stellungnahme zu diesen Lesarten arbeitet die eigene Interpretationslinie klarer heraus und untermauert diese.

Anschließend wird die traditionelle Interpretation der Nur-Geist-Lehre vorgestellt. Die in der tibetischen Doxographie übliche Unterscheidung der Wahr- und Falschaspektler-Lesarten wird eingeführt und im Ansatz phi-

losophisch rekonstruiert. Die Wahraspektler-Lesart wird als „realistische“, die Falschaspektler-Lesart als „antirealistische“ Deklination des Nur-Geist-Standpunktes umschrieben.

Nachdem der Interpretationsraum aufgespannt wurde, wird das Argument gegen den Atomismus schematisch umrissen. Weil sich die Angriffslinie der Zeitkritik am Atombegriff im Sautrāntika erschöpft hat, versucht Vasubandhu nun, das Atom und damit den Substanzbegriff auf dem Wege der Raumkritik gänzlich zu eliminieren. Vasubandhu vertritt die These, dass Atome weder in der Erfahrung selbst noch als ihre materiellen Konstitutions-elemente gegeben sind. Die realistische Gegenposition stellt sich in den drei Atomtheorien der Vaiśeṣika-, der Vaibhāṣika- und der Sautrāntika-Schulen dar. Die Argumentation verläuft apagogisch, da die Position Vasubandhus eine *epoché* ist und deshalb nur die realistische Gegenposition einen Nachweis schuldet. Gelingt dieser nicht, ist damit der Standpunkt Vasubandhus erwiesen.

Der Realist habe laut Vasubandhu drei Möglichkeiten, das außenweltliche Objekt nachzuweisen: als einheitliches Ganzes, als loser Atomhaufen oder als zusammenhängendes Atomkonglomerat. Wird wie in den letzten beiden Fällen des Trilemmas eine Atomtheorie angenommen, sind abermals zwei Fälle zu unterscheiden: das Substanzatom als räumlich ausgedehntes Teilchen oder als ausdehnungsloser Punkt. Vasubandhu wird nun zeigen, dass beide Fälle unmöglich sind, womit nur noch der Fall des außenweltlichen Objekts als einheitliches Ganzes zu widerlegen bleibt.

Der Fall des Atoms als räumlich ausgedehntes Teilchen wird mit einer mereologisch ausgerichteten Beweisführung behandelt. Wesentlicher Aspekt der Argumentation ist die implizite Annahme, dass die räumliche Verbindung und Anordnung von Atomen nur mit mereotopologischen Mitteln darstellbar sind, Ontologie sich jedoch auf den rein mereologischen Anteil beschränken muss. Topologische Eigenschaften sind als begriffliche Einbildungen bei der Betrachtung des letztlich Seienden außer Acht zu lassen. Damit führt Vasubandhu eine von der Sache her analoge Argumentation zur Antithese der zweiten Antinomie der reinen Vernunft bei Kant – er erweist, dass alles, was einen Raum einnimmt, zusammengesetzt ist.

Gegen das punktförmige Atom trägt Vasubandhu ebenfalls vernichtende Einwände vor, etwa dass sich solche Atome nur berühren können, wenn sie den gleichen Raumort einnehmen. Ausgedehnte Körper, die aus solchen Atomen zusammengesetzt sind, fallen auf Punktgröße zusammen. Des Weiteren sind phänomenal wahrnehmbare Eigenschaften wie Verdrängung oder Schattenwurf nur unter Zugrundelegung einer räumlichen Ausdehnung des Atoms konstituierbar. Vasubandhu geht daraufhin zur Betrachtung des Falls über, dass das außenweltliche Objekt als einheitliches Ganzes gegeben sei. Er führt hierzu eine Reihe von Gegenbeispielen an, die wieder in Ähnlichkeit zum Kant'schen Standpunkt zeigen sollen, dass echte Einheiten in der Erfahrungsmannigfaltigkeit nirgends vorzufinden sind.

Im nächsten Argument wird die kausale Wahrnehmungstheorie der Sautrāntika abgehandelt. Vasubandhu weist darauf hin, dass eine Kausalitätsbeziehung nur zwischen aufeinanderfolgenden Momenten möglich ist. Weil der Anhaltspunkt einer Wahrnehmung zu dem Zeitpunkt, als daraus ein Wahrnehmungsobjekt entsteht, bereits verschwunden ist, kann die Korrespondenztheorie der Erkenntnis nicht aufrecht erhalten werden. Damit ist dann auch die Notwendigkeit einer apriorisch zu denkenden außenweltlichen Reizgrundlage hinfällig geworden.

Atomtheorien, die als im Vasubandhu'schen Sinne widerlegt gelten dürfen, sind solche, die von der erkenntnisunabhängigen Existenz unteilbarer, letztlich seiender Substanzen im absoluten Raum ausgehen. Atomismen, die sich nicht auf einen solchen Substanzbegriff festlegen, bleiben von seiner Argumentation unberührt, ebenso logische und instrumentelle Atomismen sowie realistische Standpunkte, die von einer unendlichen Teilbarkeit des Stofflichen ausgehen.

Den Vergleichsfaden zur empiriokritizistischen Erkenntnistheorie wieder aufgreifend kann der Standpunkt Vasubandhus nun anhand des Mach'schen Antiatomismus neu ausbuchstabiert werden. Mach und Avenarius führen wissenschaftliche Erklärung auf Beschreibung, Ontologie auf das Prinzip der Denkökonomie zurück. In der Mach'schen Erkenntnistheorie gerät das Atom zum bloßen Gedankensymbol, bei Avenarius ist es ein aus Zweckmäßigkeitgründen gewählter Grenzbegriff. Für die Empiriokritizisten ist die bewusstseinsunabhängige Gegenständlichkeit des Erkenntnisobjekts

genau wie für Vasubandhu eine Fiktion. Ähnliche Standpunkte finden sich bei Carnap und sogar bei Quine, so dass der Idealismus Vasubandhus vom Grundsatz her keineswegs als gänzlich veraltet gelten kann.

Kapitel 4 Die vorangegangenen Erörterungen legen nahe, die Vasubandhu'sche Sicht als einen Empirismus in fremdem Gewande zu deuten. Der durchgeführte Perspektivwechsel zur buddhistischen Erkenntnistheorie verschafft dem abendländischen Philosophierenden einen neuartigen Ausblick auf seine eigene empiristische Denktradition. Die Suche nach Anfangsgründen und Sinn von Erkenntnis gestaltet sich gleichermaßen im Abstrakten als erkenntnistheoretische Reflektion wie auch im Konkreten als geistesgeschichtliche Reise zu den ost-westlichen Urquellen der Erkenntnistheorie.

Um weitere Perspektiven der erfolgten Analyse zu eröffnen, wird die Kritik an der Nur-Geist-Sichtweise vonseiten der Advaita Vedānta- und Mādhyamika-Schulen angerissen. Die Nur-Geist-Lehre dient dabei als notwendige Gegenfigur für die volle Entfaltung des metakritischen Skeptizismus der Mādhyamikas, der sich den Angriff auf die transzendente Subjektivität zum Programm macht. Andererseits geht der Mādhyamika in seiner Destruktion der Objektivitätskritik der Nur-Geist-Schule deutlich zu weit. Es wird die These aufgestellt, dass Kritik am Objektivitätsbegriff Bedingung der Möglichkeit einer Subjektivitätskritik ist. Hat man nämlich keine Mittel zur Hand, sich des absoluten Charakters gewisser physikalischer Grundbegriffe zu erwehren, ist jeder Ansatz einer Wesenslosigkeitsmystik im Sinne des Mādhyamika im Keime erstickt.

Planck bringt auf den Punkt, wie aufgrund theoretischer Fortschritte (beispielsweise der speziellen Relativitätstheorie und der Quantenhypothese) entgegen den frühpositivistischen Ansichten Machs tatsächlich auf die Absolutwertigkeit u.a. von Energie und Entropie geschlossen werden kann. Die Mach'schen Prinzipien der Relativität physikalischer Begriffe und der Instrumentalität der Außenwelthypothese seien durch die gezeigte Bewegung vom Relativen zum Absoluten entkräftet. Der Empirismus findet jedoch in der metatheoretischen Reflektion einen Ausweg. Durch absolutwertige Begriffe ist einerseits ein wissenschaftlicher Bodengewinn gegeben, anderer-

Appendix

seits kommt man aus erkenntnistheoretischen Gründen nicht umhin, diese Absolutheit wieder in Bezug auf Theorie und Reflektionsstufe zu relativieren.

Abschließend folgt eine kurze Selbstbeurteilung des Geleisteten im Hinblick auf die Aufgabenstellung der Arbeit und den bearbeiteten Stoff.

Lebenslauf

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Eidesstattliche Erklärung

Hiermit versichere ich, dass vorliegende Arbeit selbständig verfaßt und keine anderen als die angegebenen Hilfsmittel benutzt sowie die Stellen der Arbeit, die anderen Werken dem Wortlaut oder dem Sinn nach entnommen sind, durch Angabe der Quellen kenntlich gemacht wurden. Ferner versichere ich, dass die Arbeit in gleicher oder ähnlicher Fassung noch nicht Bestandteil einer Studien- oder Prüfungsleistung war.

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