PERSISTENCE AND INference in Classical indian philosophy

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Abstract

My dissertation examines debates over the Buddhist theory of momentariness—the view that nothing persists through time—together with the systems of inferential reasoning within which these debates take place. My primary focus is on the first chapter of Udayana’s Ātmatattvaviveka, or “Inquiry into the Existence of the Soul,” which refutes the Buddhists’ formal inferences for momentariness and offers a defense of the contrary view that things in general persist.

First, I set out the basic conceptual framework for the epistemology and philosophy of mind of Udayana’s Nyāya school, centered around occurrent cognitions and event-like instances of knowledge. I argue that, for the classical Indian philosophers under consideration, knowledge is not a species of belief. I then elaborate the theories of inferential reasoning put forth by the Buddhist epistemological school, and provide an innovative interpretation of the Buddhist philosopher Dharmottara’s indirect method of justifying inferences. I contrast Dharmottara’s theory of inference with two distinct accounts from the Nyāya tradition—those of Jayanta Bhaṭṭa and Keśava Miśra on the one hand, and Udayana and Varadarāja on the other—and argue that despite their being explained by different metaphysics, the Nyāya and Buddhist theories of inference converge sufficiently to provide a common framework from which to decide disputed questions, based on what is inferrable.

After situating the Buddhists’ formal inference for the momentariness thesis within this theoretical frame, I examine Udayana’s refutation, including his account of the causal powers of
persisting entities, and the limits of our thought and talk about the non-existent. Here, I show how Udayana’s theories of inference and hypothetical reasoning inform the structure of his treatise on momentariness, and how facts about what can and cannot be coherently cognised dictate which views in metaphysics are possible. My overall aim is to provide a unified account of the work of this neglected philosopher, while emphasizing the vital importance of examining this historical debate in metaphysics within its proper conceptual context, by learning how to reason like a Naiyāyika.
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Chapter 1

Introduction

Along with many other issues in metaphysics, philosophers in classical India were interested in the basic question of persistence. Many Buddhist thinkers defended a view known as universal momentariness, according to which nothing can persist through time; everything instead exists for but a single moment. This dissertation is concerned with the responses to the momentariness view, as presented by the Brahmanical realist philosopher Udayana in the opening sections of his Ātmatattvaviveka, “The Inquiry into the Existence of the Soul.”

In this chapter, I will provide an introduction to Udayana and his work, a brief guide to the other Indian philosophers to whose work I will refer, and a summary of the plan for the dissertation.
CHAPTER 1. INTRODUCTION

1 Udayana and the Ātmatattvaviveka

1.1 Life and Affiliation

Udayana lived and wrote around AD 1000¹ in Mithilā, in northeast India near modern Nepal. He is given credit for being the intellectual vanquisher of the Buddhists, as he was the last Indian philosopher to compose a major philosophical work directed against Buddhist arguments.

Udayana’s works are situated within two traditions of Brahmanical (so-called Hindu) philosophy: the Nyāya tradition, whose members are called Naiyāyikas, and the Vaiśeṣika tradition, whose members are also called Vaiśeṣikas. Both of these traditions are committed to some form of direct cognitive realism, as well as (at least by Udayana’s time) a minimal rational monotheism in the service of Vedic religious orthodoxy. Udayana draws freely on the resources of both of these traditions, to such an extent that following Udayana’s synthesis, they are no longer considered to be separate philosophical schools.

1.2 Udayana’s Corpus

Udayana is the author of seven works, all of which survive in their entirety in the original Sanskrit.

Two short texts, the Lakṣaṇamālā, or “Wreath of Definitions,” and the Lakṣaṇāvalī, or “Garland of Definitions,” provide basic definitions of key technical terms from the Nyāya and Vaiśeṣika traditions, respectively. These two texts are useful sources for providing some of the basic frame for Udayana’s thought, but are (intentionally) quite limited in philosophical depth.

The Pariśuddhi and Kirāṇāvalī are, respectively, Udayana’s contributions to the commentarial traditions on the Nyāya- and Vaiśeṣika-Sūtras, the foundational texts of their respective philo-

¹Regarding the scholarly controversies over Udayana’s dates, see Chemparathy (1972: 19–21). I am not concerned with establishing a precise date, even if that were possible, as most dates in classical Indian history are rather imprecise approximations. At most, I will be concerned with Udayana’s relative chronology, as coming before or after the Buddhist philosopher Ratnakirti. For this, see section 2.2 below.
sophical schools. While they are both important works in their own right, they are difficult to engage with directly, since they assume a deep familiarity with the earlier commentarial traditions of which they form a part. The Nyāyapariśiṣṭa is an additional commentary on the fifth book of the Nyāya-Sūtra, which is principally concerned with the theory of debate and the ways of losing an argument.

Finally, there are two independent treatises, the Ātmatattvaviveka (ĀTV), “The Examination of the Truth About (or, the Existence of) the Self” and the Nyāyakusumāñjali (NKA), “The Flower-Offering of Bouquets of Reasoning.” They are “independent” in the sense that, while they engage with arguments found in earlier philosophical literature, they are not structured as commentaries on some other text.

Udayana’s stated purpose in the NKA is to provide a series of rational proofs for the existence of Īśvara—literally, “the Lord,” a single, omniscient, omnipotent, personal, creator, sustainer, and destroyer of the world—arguing against a variety of atheists, including Buddhists, members of the Mīmāṃsā philosophical school, and others. The eighteen theistic inferences, however, come only in the fifth of five books, after Udayana has defended his theories of causality, and of epistemology and cognition, including (against a Buddhist opponent) the correct account of the nature and functioning of perception and inference. I submit that for Udayana, the existence of Īśvara is supposed to follow directly—“for free,” as it were—from the basic metaphysics and epistemology of the first four books.

In the ĀTV, Udayana’s explicit purpose is to defend the existence of the ātman—the persisting entity which serves as the foundation for cognition, and the term for which is frequently, but perhaps misleadingly, translated as “the soul.” Unlike the NKA, where Udayana addresses the views of philosophers from a variety of schools and traditions, in the ĀTV, a generic Buddhist in the epistemological tradition of Dharmakīrti and Jñānaśrīmitra is the primary opponent throughout. This same Buddhist opponent appears in the NKA and the commentaries. But like the NKA,
Udayana’s positive argument for the existence of the ātman—which is ostensibly the point of the whole treatise—only appears at the end of a lengthy discussion of other issues in metaphysics and epistemology.

1.3 The Structure of the Work

The basic structure of the ĀTV is provided by four general Buddhist objections to the existence of the ātman, which Udayana examines and responds to in turn:

ĀTV I: Arguments from momentariness. The only things which exist are utterly unique particulars which are neither spatially nor temporally extended. Since nothing at all persists, there cannot possibly be a persisting ātman. (In response, Udayana offers a defense of persisting entities in general.)

ĀTV II: Arguments from the denial of external objects. There are no existing things apart from cognition. Since only cognition is real, the ātman cannot exist as something apart from cognition, and as something which is itself cognised. (In response, Udayana offers a proof for the existence of the external world.)

ĀTV III: Arguments denying the difference between qualities and quality-possessors. (This is an objection to the existence of the ātman because, on the Nyāya view, cognitions are qualities possessed by the ātman.) Since cognition is identical with the ātman, we would be better off not talking about an ātman separately. (Udayana responds by defending the non-identity of qualities and quality-possessors, which requires that we have an account of an ātman.)

ĀTV IV: Arguments from non-apprehension. Since we never actually apprehend the ātman, we can, at best, be left with doubt about its existence. (Udayana responds by presenting, at last, the positive proof for the ātman specifically.)
While Udayana presents the treatise negatively—seemingly as a laundry list of responses to various criticisms—there is in fact a clear positive, forward thrust to the arguments. In the first book, Udayana shows that things in general persist. In the second book, he shows that these persisting things include external, extra-mental entities. In the third book, he demonstrates that these extra-mental entities must stand in quality/quality-possessor relations to each other. And finally, in the fourth book, Udayana proves that one special case of this quality/quality-possessor relation is between cognitions and the \textit{ātman}.

In this dissertation, I will be concerned with the arguments against momentariness, which occupy the beginning of the first of these four books.

### 1.4 Editions and Translations

There are four primary editions of the Sanskrit text of the ĀTV.

The 1939 Asiatic Society edition (reprinted 1986), edited by Dvivedin and Dravida, includes the full text of the ĀTV, along with the Sanskrit commentaries of Śaṅkaramiśra, Bhagīratha, Raghunātha Śiromaṇi, and Gadādhara Bhaṭṭācārya (though the last of these breaks off early in the text). The commentators all significantly postdate Udayana, having lived from the 15th through the 17th centuries.² Unless otherwise indicated, references to the ĀTV and its commentaries are to this edition (though I occasionally add additional punctuation, following the 2008 edition).

The 1940 Chowkhamba edition, edited by Dhundiraja Sastri, includes Udayana’s ĀTV, along with the commentaries of Narāyanācārya (together with the main text) and Raghunātha and Gadādhara (as an appendix).

A 2008 edition, the first volume of an edition of Udayana’s complete works edited by Kiśoranātha Jhā, which includes the ĀTV together with Śaṅkaramiśra’s commentary, appears to be

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²Karl Potter and Sibajiban Bhattacharyya (1993: 395, 521; and 2010: 196, 504) place Śaṅkaramiśra in “the second quarter of the fifteenth century,” Raghunātha dying around 1550, Bhagīratha living approximately 1535, and Gadādhara living around 1660.
a transcription of the 1939 edition. All of the same editorial decisions are taken, though several new errors are introduced, likely due to eyeskip in copying the earlier edition.


There also exist several partial translations of the ĀTV. The first book (ĀTV I) is translated by Chitrarekha Kher and Shiv Kumar (1987). The footnotes in this translation consist largely of unattributed paraphrases of Śaṅkaramiśra’s commentary. Small portions of the sections on momentariness have been translated by Joy Laine (1998) and B.K. Matilal (1970). The third book, the shortest of the four, has also been translated by Laine (1993). I have consulted these translations as appropriate, though all translations appearing in this dissertation, unless otherwise noted, are my own.

While all the extant translations and studies of portions of Udayana’s text are useful in their own way, none of them fully appreciates the big picture, the overall structure and direction of Udayana’s work. Neither the discussion of the work as a whole in Laine (1998: 79), nor the summary of Varadachari acknowledges the positive program of the ĀTV. They focus instead on considering the work primarily as a response to various objections. The other studies and translations, meanwhile, focus on isolated portions of Udayana’s text, making little effort to integrate them into a larger whole. Such integration is, indeed, an enormous undertaking, and one to which I can only begin to contribute in the present work. Nonetheless, I would like to demonstrate how to use Udayana’s own tools to help make sense of the text. A larger picture is there, but Udayana has systematic reasons for presenting the text as he does. According his own account of how epistemic processes operate, the arguments for his own view can only be properly stated after

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³Laine’s excerpt comes from the beginning of Udayana’s text, though with a few small omissions. Matilal’s excerpt comes from later in the first book, a section from the Vyatireka Section of ĀTV I.1.

⁴There also exists a translation of the entire ĀTV by N.S. Dravid (1995). Here, the rendering of Udayana’s text into English is nearly unintelligible, and so I will make no further mention of it.

⁵In Potter (1977: 526ff).
his reader is put into a state of doubt. This state of doubt is brought about by the rebuttal of various objections.

2 Other Philosophers

2.1 Naiyāyikas

In placing Udayana’s philosophy in context, I refer to two textbooks of Nyāya thought. The first is the verse Tārkikarakṣā with its prose autocommentary Sārasaṁgraha, composed by Varadarāja in the mid-12th century. As far as I am aware, the work is untranslatable. Varadarāja is also the author of a number of other works in the Nyāya tradition, including a very useful commentary on Udayana’s other major work, the NKA.

The second textbook is the Tarkabhāṣā of Keśavamiśra, who lived in the mid-13th century. This text has been translated at least twice, by Gajendragadkar and Karmarkar (1934) and Gaṅgānāṭha Jha (reprinted 2006).

Both of these works are helpful as guides to the Nyāya tradition in the period shortly after Udayana. Notably, both authors lived well before Gaṅgeśa (fl. 1320), the founder of the so-called “New Logic” (Navya Nyāya) school.

2.2 Buddhists

Udayana’s opponent in the ĀTV is an imagined member of the Buddhist epistemological school, in the tradition of Dharmakīrti and his successors. Dharmakīrti himself lived around AD 600.
Among his successors, I will make significant reference to Dharmottara (late 8th century),¹¹ who composed commentaries on many of Dharmakīrti’s works.

Two additional Buddhist philosophers, who lived and wrote very close to the time of Udayana, were Jñānaśrīmitra and his pupil Ratnakīrti. Each of them, among his other works, composed a treatise on momentariness. Jñānaśrī’s work on momentariness is divided into four chapters: the first three on the “inference from existence,” and the fourth on the older inference from the inevitability of destruction. Jñānaśrī’s complete works are edited by Thakur (1987), and the first of the four chapters on momentariness is edited in Sanskrit, and translated into German, by Taiken Kyuma (2005). Ratnakīrti’s work on momentariness is divided into two parts, which correspond to the middle chapters of Jñānaśrī’s work. Ratnakīrti’s complete works are also edited by Thakur (1975). The first chapter, on positive concomitance in the momentariness inference, is edited and translated by Woo (1999). The second chapter, on negative concomitance, is translated by McDermott (1969).

Finally, I consider a very late textbook of Indian Buddhist philosophy, the Tarkabhāṣā of Mokṣākaragupta, “who wrote it some time between 1050-1202 A.D.”¹² It is a largely unoriginal compendium of the thought of the earlier Buddhist epistemologists.

3 Plan for the Dissertation

The plan for the remainder of the dissertation is as follows.

In chapter 2, I set out a basic conceptual framework for the epistemology and philosophy of mind of the late Nyāya school, focusing on the work of Udayana and Keśavamiśra. In addition to providing the foundation for my subsequent discussions of inferential theory, I argue for the following general interpretive claim: Philosophers in classical India (including the Naiyāyikas

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and their Buddhist rivals) take the epistemically interesting items—those features of our mental life worthy of the most philosophical attention, and which may under the right conditions count as knowledge—to be occurrent and event-like, rather than states or dispositions. Accordingly, knowledge is a special kind of awareness-event. While much of this material will be familiar to readers already well-acquainted with Indian philosophy, it is an essential for readers coming from western traditions. Moreover, my conclusion, that “belief” is an inappropriate concept to apply to Indian epistemology, should serve as a challenge even to specialists.

Chapter 3 examines theories of inference in the Indian Buddhist epistemological tradition. I begin with the account of Dharmakīrti, which offers a positive justification of the inferential process, by way of stating the conditions on a successful inference (strictly speaking, the conditions on the inferential reason property, the *hetu*) and then enumerating the varieties of reasons which can satisfy these conditions. I then turn to Dharmakīrti’s successor, Dharmottara, whose work has been studied much less than that of his famous predecessor. I show that Dharmottara reinvents Dharmakīrti’s theory of inference, replacing Dharmakīrti’s positive account with an indirect, negative account according to which an inference is genuine just in case it is free from a finite, and surprising short, list of defects, known as pseudo-reasons (*hetvābhāsa*). I argue first, that this indirect method is philosophically sound, and second, that it represents a significant innovation in Buddhist epistemology, which is adopted by subsequent Buddhist philosophers in India.

In chapter 4, I consider two further accounts of the inferential process, both from Udayana’s own Nyāya tradition. In the first half of the chapter, I present the account of Jayanta Bhaṭṭa and Keśava Miśra, which closely resembles that of the Buddhists in providing a list of conditions for a good inferential reason property (*hetu*), and proceeding to verify an inference by ruling out a finite list of pseudo-reasons. I show that their account differs from that of the Buddhists in two related ways: in the Naiyāyikas’ thoroughgoing external reliabilism, where a property’s status
as a reason depends solely on the relations which obtain between real universals (as opposed to Dharmottara’s radical internalism, which is completely cogniser-dependent), as well as in Keśava and Jayanta’s theory, insofar as it is emphatically not cogniser-dependent, having no room for the Buddhists’ pseudo-reasons which relate to doubt. In the latter half of the chapter, I consider an alternative model advocated by Udayana himself, together with his commentator Varadarāja, which eschews the method of ruling out pseudo-reasons in favor of verifying inferences via special patterns of hypothetical reasoning (tarka). Just as chapter 3 argues for the importance of distinguishing the theories of individual Buddhist philosophers, chapter 4 seeks to emphasize the differences between the various Naiyāyikas.

The final three chapters examine Udayana’s refutation of the Buddhist “inference from existence” (sattvānumāna) for universal momentariness. Chapter 5 presents the history of Buddhist arguments for the momentariness (i.e., anti-persistence) thesis, and sets out the most important of these, according to the model of inference discussed in chapter 3. This so-called “inference from existence” purports to show that anything which exists is necessarily momentary, simply in virtue of existing.¹³ According to the Buddhists’ account of inference, the success of the inference from existence requires the Buddhist to demonstrate two things: first, the general principle “whatever exists is momentary” together with an example of an existing, momentary thing; and second, the general principle “whatever is non-momentary (i.e., persistent) does not exist,” together with an example of a persisting, non-existent thing. These two requirements are known, respectively, as positive concomitance (anvaya) and negative concomitance (vyatireka). Udayana’s critiques of the inference with regard to each of these requirements are the subject of the next two chapters.

In chapter 6, I evaluate Udayana’s arguments against the positive concomitance in the inference from existence. In the first half of the chapter, I consider the Buddhist’s strategy for finding the requisite example of an existing, momentary thing via a series of reductio arguments. Draw-

¹³In the Indian philosophers’ technical language, to be introduced in chapter 3, the reason property (hetu) in the inference is “existence.”
CHAPTER 1. INTRODUCTION

ing on the works of the Buddhist philosophers Jñānaśrimitra, Ratnakīrti, and Mokṣākaragupta, I provide the context necessary to make sense of Udayana’s cryptic, often elliptical exposition of his Buddhist opponent’s argument. In the second half of the chapter, I show how Udayana provides a coherent account of the causal powers of persisting objects together with co-operating causal factors, such that the Buddhist’s reductio arguments are ineffectual.

Finally, in chapter 7, I consider the second portion of Udayana’s refutation of the inference from existence, focusing here on the negative concomitance and the requirement for an example of a persisting, non-existent thing. I first consider the difficulties involved in thought or talk about the non-existent. I argue, contrary to all three recent studies of this material, that Udayana has a principled distinction between his own mention of non-existent things merely for the purpose of refutation (which is legitimate) and his opponent’s mention of the non-existent in the course of directly justifying an inference (which is not legitimate). After presenting some necessary distinctions from Udayana’s ontology of non-being, I go on to address the distinction proposed by the Buddhist between positive predications made of non-entities (which are always illegitimate) and negative predications made of non-entities (which can, in some cases, be acceptable), and I show that Udayana’s arguments against this position are successful. Even setting aside the question of successful predication, it is impossible even to take non-entities as unitary cognitive objects in any coherent, reliable way. The best we can do, Udayana shows us, is to mentally construct impossible combinations from various separately-existing components: the son of a barren woman does not exist, though sons and barren women do. Yet such combinations will be unable to provide the persisting, non-existent object the Buddhist requires for the inference from existence.

In considering the project as a whole, the dissertation could well be called “How to Reason Like a Naiyāyika,” as it examines the Naiyāyikas’ formal theories of epistemology and inferential reasoning, and shows how these theories guide and structure Udayana’s arguments in the debate
over momentariness. Indeed, a primary focus in chapters 5–7 is to show how Udayana’s treatment of the metaphysics is deeply connected to, and informed by, his theory of inference and his overall program of epistemology. This connection is manifest in two ways: first, in the presentation, organisation, and style of the refutation of the momentariness inference; and second, in the content of that refutation. Particularly in chapter 7, considerations about what is thinkable play a critical role in Udayana’s argument.

Finally, I hope to suggest that this deep connection between epistemology and metaphysics is part of a larger self-understanding, on the part of Udayana as well as his Buddhist opponents, as systematic philosophers. In interpreting Udayana, like any other systematic thinker

Arguments are to be understood as themselves internal to a philosophical system; what counts as a plausible premise or as a convincing argument is not to be objectively adjudicated from a historian’s perspective outside the system. And what does count as a good argument within a system of philosophy need not line up very closely with modern post-Fregean logic. Keeping this in mind, the systematic historian aims to clarify without reconstruction why the “arguments” ... found in texts were supposed by their authors to be fully convincing.¹⁴

In interpreting Udayana and his opponents as such systematic philosophers, I take it that my primary task is to place their arguments together, in an interconnected way, within the context of their own theorising about what makes for a good argument.

Chapter 2

Cognition and the Epistemic Instruments

Introduction

In the course of nearly two millennia of continuous reflection and debate, philosophers in India developed a variety of rigorous systems of epistemology. While these classical thinkers considered many problems which would be familiar to philosophers of the twentieth and twenty-first centuries—radical scepticism, perceptual error, Gettier-like problems in inference, and paradoxes about the knowledge of knowledge, to name only a few—they are strikingly silent on the topic of belief. While there are several perfectly good words in Sanskrit meaning “belief” or “to believe,” these terms are almost entirely absent from many treatises on epistemology.¹ If the authors of these texts took themselves to be talking about knowledge as some species of true belief, we should expect them to regularly use the word “belief” in the course of defining and explaining knowledge. These Indian thinkers seem instead to employ different concepts, which are not readily equivalent to “belief.”

¹Most significantly, these would include terms from the verbal root prati, which can mean “to believe” in an epistemic sense. The nouns would be pratiti and pratyaya, though the latter of these is used by Buddhists not for belief but for a type of cause (cf. Apte, pratyayaha q.v.; and NBh ad NS 1.1.15). For an exception which proves the rule, see KTBh 89.1, quoted and discussed in section 2.1 below. I don’t intend for much (if anything) to ride on this point; my arguments against considering Keśava’s Nyāya epistemology in terms of belief should stand on their own.
Nevertheless, some modern interpreters have been quick to cast their discussions of Indian epistemology in terms of (true) belief. Jonardon Ganeri (2010) freely uses “true belief” to render the Sanskrit term pramā (literally, “knowledge”) without offering any explanation, as though his choice of this locution were entirely unproblematic. This same reflexive move to cast Indian theories of knowledge in terms of belief leads Dan Arnold simply to assert that, “Surely in such discussions [the Buddhist epistemologists] Dignāga and Dharmakīrti elaborated an account relevant to the justification of beliefs.” He then proceeds to criticise them for doing an inadequate job, without ever demonstrating that they even had such a project in mind.

In this chapter, I will present a case for understanding one particular classical Indian theory of knowledge, that of the thirteenth century philosopher Keśava Miśra, as an epistemology without any significant role for belief as constituent of, or prerequisite for, knowledge. I will argue that Keśava, as an exponent of the Nyāya philosophical tradition, elaborates a coherent account of knowledge, which does not proceed by simply filling out the details of a generic “justified true belief” account. Keśava’s theory is best studied on its own terms, without attempting to force-fit it into one of these frameworks.

The chapter is divided into three parts: a brief overview of Keśava’s philosophical context; the expository heart of the paper, which sets out Keśava’s theory of knowledge and cognition; and an explicitly comparative analysis of that theory, which argues against the use of “belief” in understanding and interpreting this theory of knowledge. In this third, comparative section, I examine the place of truth in Keśava’s theory, and the relation of truth with belief; I emphasize the contrast between Keśava’s account of knowing as an event, and contemporary accounts.

²The term first appears when Ganeri writes that “A way of knowing (pramāṇa) is, by definition, the instrumental cause (karaṇa) of true belief (pramā)” (2010: 542), his parentheticals making clear that he intends “true belief” as such a translation. Indeed, this locution is used throughout the article without explanation, despite the linguistic disanalogy with Ganeri’s translation of pramāṇa, and the fact that the term “belief” never appears in Dasti and Phillips (2010), to which Ganeri is responding. For my discussion of the translation of pramāṇa, see especially footnote 10 on page 17, below.

³The quotation appears in Arnold (2005: 49). Even the title of the book, Buddhists, Brahmins, and Belief, gives a central place to a concept which, I will suggest, was utterly foreign to the philosophy of knowledge in classical India.
of knowledge as something more dispositional; and finally, by examining Keśava’s account of higher-order awareness and knowledge of knowledge, I show that, contrary to our everyday notion of belief, acknowledgement and assent are downstream from the cognitive events which can count as knowledge.

The first two expository sections will also serve, for readers unfamiliar with the history of Indian philosophy, to set the context for the remainder of the dissertation. Section 3, meanwhile, offers a challenge to those scholars already engaged in this area.

1 The Common Framework of Sanskrit Epistemology

Across the various philosophical schools, the epistemologists of classical India shared a basic set of terms which provided both the starting point and the organizing structure for discussions of the theory of knowledge. Even the sceptical thinkers took this basic framework as the object of their critique in denying the possibility of knowledge. These basic epistemological terms are formed by analogy to the terms for event-makers (kāraka) in the traditional study of Sanskrit grammar.⁴ According to the Indian grammarians, a noun can stand in one of six relations to a verb:

1. kartr, “agent”
2. karman, “patient”
3. karana, “instrument”
4. sampradāna, “beneficiary”

⁴The kārakas are something akin to thematic relations or theta roles in modern linguistics, and are clearly distinguished from the (purely syntactic) noun cases by the Indian grammarians. The traditional grammarians recognize seven noun cases, which are traditionally named simply with ordinal numbers, first through seventh, but are all too often in Western scholarship called by misleading Latinate names (nominative, accusative, etc.) which obscure the distinction between semantic and syntactic roles. Certain event-makers are observed by the Indian grammarians to be typically presented in certain noun cases—as, for example, the agent by a noun in the first (“nominative”) or third (“instrumental”) case—but these correspondences are not one-to-one. (The vocative, which does not stand in any of the kāraka relations, is not considered to be a true case, and so is not included among the seven.)
5. *apādāna*, “source”

6. *adhikaraṇa*, “location”

The verb itself, meanwhile, indicates the event (*kriyā*). To illustrate these roles, consider the sentence “In the kitchen, Rāma cooks rice for Sītā with firewood from the forest.”⁵ Here, Rāma is the agent, rice the patient, firewood the instrument, Sītā the beneficiary, the forest the source, and the kitchen the location. The action is cooking. Most sentences, of course, will employ only a few of the six event-makers.

The Sanskrit grammatical terms for four of the event-makers, as well as for the event itself, are formed from the verbal root *kṛ*, meaning “to make” or “to do.” The relevant epistemological terms are formed analogously from the verb *pramā*, “to know.” We have, then, these terms:

1. *pramātr*, “knower”
2. *prameya*, “object of knowledge” (i.e., the patient of knowing)
3. *pramāṇa*, “instrument of knowledge; epistemic instrument”⁶

Finally, we have the noun *pramā*, meaning “knowledge” itself. This term parallels the grammatical term for the event indicated by the verb (*kriyā*), thus establishing a default, though by no means inviolable, presumptive understanding of *pramā* as “an act of knowing,” or, following Patil (2009: 41), a “knowing-event.”

The epistemological vocabulary thus parallels the vocabulary for describing the action of any ordinary verb. Just as in the sentence “Devadatta cuts the tree with an axe,”⁷ we find an agent (Devadatta), patient (the tree), instrument (the axe), and action (cutting), so in the sentence “Devadatta knows the blue color of the pot by perception,” we have a knower (Devadatta), an object of knowledge (the blue color of the pot), an instrument of knowledge (perception), and an action

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⁵This example is taken from Ganeri (1999b: 52), and is extensively discussed by Patil (2009: 8–15).

⁶I will use these two terms interchangeably to translate *pramāṇa*.

⁷This is the stock example used by many of the classical authors (e.g., KTBh 8.5, quoted on page 26 below), and discussed by various modern interpreters, including Patil (2009: 37ff).
(knowing). The basic project of Indian epistemology is to give an account of what sorts of things play each of these roles, and of how they do so. As the structural similarity to the grammatical analysis of ordinary verbs suggests, the desired epistemological analysis is generally taken to be an account of knowledge as the act of knowing, an act which comes about by the causal agency of some instrument.

Of these four key terms, the instrument of knowledge (pramāṇa) is taken by the Sanskrit philosophers to be the central topic of philosophical analysis and debate. Indeed, the branch of inquiry which I have called “epistemology” is in Sanskrit termed pramāṇaśāstra, “the science of epistemic instruments.”⁸ The early Nyāya philosophers justify this focus, by observing the unique role of the instrument in determining what sort of action comes about. Even if some agent other than Devadatta swings the axe, and even if he uses the axe on a different patient (say, a chair rather than a tree), an action of cutting still takes place. But when a different instrument is employed, a different kind of action will occur.⁹ The issue of the instruments of knowledge provides both the starting point and the organizing structure for discussions of the theory of knowledge for all the classical philosophical schools. Philosophers from divergent schools approach the subject by way of determining the meaning of the term pramāṇa, and of the terms for the various individual instruments. Questions about the nature of knowledge (pramā), meanwhile, are asked and answered in the course of the inquiry into the epistemic instruments.

Before moving on to features specific to Keśava’s program of epistemology, we should be aware of one further term employed across the various schools. This is the concept of jñāna, or “cognition.”¹⁰ This term is a wide-ranging one, which includes a great many mental activities or

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⁸Śāstra is a term used for forming the names of intellectual disciplines, much like the English suffix -ology.
¹⁰In non-philosophical Sanskrit, jñāna can be used interchangeably with pramāṇa to mean “knowledge,” and can take either of two valences: a sense in which the mental awareness is necessarily true, and a weaker sense of a mental awareness which need not be veridical. A number of earlier translators were misled by these non-philosophical uses to render jñāna as “knowledge” and pramāṇa as “valid knowledge.” This persistent mistranslation muddles the otherwise excellent translation of the Buddhist Tarkabhāṣā of Mokṣākaragupta in Kajiyama (1998), for instance.
states. The Indian pramāṇa-theorists are concerned to explain what subset of these are knowledge (pramā).

Note that, while “belief” is not itself one of the core terms of the general “epistemic instrument” framework of classical India, nothing I have presented so far, in the course of elaborating that framework, excludes the possibility of a belief-based epistemology. An enterprising philosopher could, no doubt, work out a theory wherein pramā is defined in terms of belief, and the epistemic instruments are understood as mechanisms by which beliefs are produced or regulated. While I do not think that any of the historical pramāṇa-theorists in India pursued such a program, the proof for this claim will have to come piecemeal, by examining how individual philosophers elaborate the pramāṇa framework. In what follows, I will provide such an examination of Keśava Miśra’s elaboration of the framework.

2 A Typology of Cognition

2.1 The Basic Varieties of Cognition

In the chapter of his Tarkabhāṣā on the objects of knowledge, which gives a complete summary of his ontology, Keśava Miśra elaborates a hierarchy of the varieties of cognition. He explains:

Mohanty (1966) even more problematically translates both jñāna and pramā as “knowledge,” thereby obscuring a distinction which the Sanskrit authors take pains to maintain.

Such translations may be perfectly appropriate for a work of poetry or drama, with respect both to the Sanskrit and to everyday English usage. In epistemological texts, however, jñāna is consistently taken to have a wider extension than pramā, and to include cognitions whose content is false (as well as those whose content is true) and such mental acts or states as remembering in a dream or doubting, while pramā is taken to be that subset of jñāna whose members have some “epistemic virtue” by which they reflect, in some way or other, how the world actually is. (For a detailed discussion, see section 2 below.) The former is certainly not what English-speaking philosophers mean by “knowledge,” while the latter at least might be. For this reason, I follow Phillips and Ramanuja Tatacharya (2004), and others, in translating jñāna as “cognition,” rather than “knowledge.” I will reserve the term “knowledge” for translating pramā and its etymological relatives. (As it happens, jñāna is related etymologically to the Greek gnōsis and Latin cognosco—from which the English cognition is derived—but also to the English word know itself.)

We might note in passing that Bennett (1984: 127ff) observes a similar confusion—the rendering of the Latin cognitio as the overly narrow “knowledge,” rather than “cognition”—which has afflicted scholarship on Spinoza.
Cognition is that which is denoted by such synonyms as buddhi, upalabdhi, jñāna, and pratyaya. Or, cognition is that which illumines an object. And it is of two kinds: awareness and recollection.

Awareness is also of two kinds: yathārtha and ayathārtha. Of these, yathārtha awareness is that which is not inconsistent with its object. And it is produced by the epistemic instruments, namely perception, etc. For example, the cognition of a pot, by means of the eye functioning flawlessly; or the cognition of fire produced by the inferential reason smoke; or the cognition of being called “water buffalos” from the sight of something resembling a cow; or the cognition of a soma sacrifice’s being the cause of attaining heaven from the testimony “a man who is desirous of heaven should sacrifice by means of a soma sacrifice.”

Ayathārtha awareness is that which is not produced by an epistemic instrument, and is inconsistent with its object. It is of three kinds: doubt, hypothetical reasoning, and error. Doubt and hypothetical reasoning will be discussed later. Error is the grasping of X in regard to what is other than X. Misapprehension is a synonym. For example, the attribution of silver in the presence of what is not silver, but rather mother-of-pearl, etc., expressed as “this is silver.”

Recollection, too, is two-fold: yathārtha and ayathārtha. It can be either of these, when one is awake, but every cognition during sleep is recollection, and ayathārtha, since there is the arising “this” in regard to what is really “that,” by the power of a defect.¹¹

¹¹KTBh 89.1–13: buddhir upalabdhir jñānam pratyaya ity ādibhiḥ paryāyaśabdair yad abhidhiyate, sā buddhiḥ | arthaprakāśo vā buddhiḥ | sā ca saṁkṣepato dvividhā | anubhavaḥ smaraṇam ca | anubhavo 'pi dvividhāḥ | yathārtho 'yathārthaś ca | tatra yathārtho 'rthāvisaṃvādī | sa ca pratyaksādibhiḥ pramāṇair janyate | yathā caṣṭādibhiḥ aduṣṭair ghaṭadijnānam | dhāmalingakam agnijñānam | gosādṛśyadarśanad gavayaśadavācyatajñānam | jyotisomena svargakāmo yajeteti vāyājy jotisomasya vargasādhanatvajñānam | ayathārthas tv arthavyabhicāry apramāṇajāh | sa trividhāḥ | saṁśayas tarko viparyayaś ca | saṁśayatarkau vakṣyete | viparyayas tv atasmāśaikṣetraḥ | bhrama iti yāvat | yathā purovartiny evārajate śuktyādau rajatārop apād rajatam iti | smaraṇam api yathārtham ayathārtham
CHAPTER 2. COGNITION AND THE EPISTEMIC INSTRUMENTS

Figure 2.1: Keśava’s Typology of Cognitions
Keśava begins this passage by asserting the synonymy of four Sanskrit terms for cognition, most significantly among them, *buddhi* and *jñāna*. While the term *buddhi* is used by the Buddhists and the Sāṃkhya school to refer to the cognitive faculty whose function is the production of *jñāna*, rather than to a particular act or instance of cognition, Keśava’s synonyms, which denote actions or events, as well as the content of the subsequent discussion, make clear that the latter meaning is intended here.¹² Of the four synonyms, *pratyaya* is the only one which, in any context, might mean “belief,” though “knowledge,” “experience,” “idea,” and “cognition” are all possible translations, as well. Since in this instance *pratyaya* is to be synonymous with a group of other terms which do not plausibly mean belief, and since *buddhi* and *jñāna* are the terms used in the rest of the passage, and elsewhere in Keśava’s *Tarkabhāṣā*, I do not take this use of *pratyaya* to be a counterexample to my claim that Nyāya epistemology is not concerned with belief.¹³

Keśava goes on to define cognition as “that which illumines an object,” a definition which is also to be found in Udayana.¹⁴ Among cognitions, we have recollection (or, memory) as a category unto itself, while all other cognitions fall into the category of awareness. That cognitions are to be delineated in this way is also made clear by an earlier passage in Keśava.¹⁵

Among awarenesses, Keśava ultimately distinguishes seven varieties: four of which are produced by epistemic instruments functioning in an appropriate way (that is, by an appropriate causal process) with regard to the object which is to be known, and three of which are produced by a deviant or defective causal process with regard to the object. The former are called *yathā-ceti dvividham | tad ubhayaṃ jāgare | svapne tu sarvam eva jñānāṃ smarāṇam ayathārthaṃ ca | doṣavaśena tad iti sthāna idam ity udayāt.*

¹² This Sāṃkhya/Buddhist alternative is explicitly rejected by the early commentators. Cf. NBh 18.11–16, *ad* NS 1.1.15, and the NV, NVT, and NVTP, *loc. cit.*

¹³ We might also note that when this list of synonyms is given in NS 1.1.15, *pratyaya* is omitted. It does, however, appear in the Vaiśeṣika philosopher Praśastapāda’s list; cf. KĀ 170.3.

¹⁴ LĀ 173 and LM 3.23.

¹⁵ KTBh 9.2—10.1: *anubhavo nāma smrtiyatiriktam jñānam* ("Awareness is the name for any cognition other than recollection.") Cf. TS 35, which helpfully defines recollection as “cognition which is produced solely from the traces [of previous cognitions]” (*samskāramātrajanyam jñānaṃ smṛtiḥ*). I present Keśava’s discussion of these “traces” in section 3.2 below.
rtha, and the latter ayathārtha.¹⁶ The consistency to which Keśava refers in his definitions is a consistency of causal connection, and not a consistency of content, as we shall see in more detail in the consideration of the various defective, ayathārtha cognitions in section 2.2 below.¹⁷

Keśava’s references in the above passage to the seven sorts of awarenesses are admittedly somewhat cryptic. By “perception, etc.”, he refers to the four epistemic instruments of the Nyāya school: perception, inference, analogy, and testimony. The four examples that follow present, in turn, the stock example of an awareness which is produced by each of these four instruments. It is these four awarenesses which are yathārtha. They will be discussed in more detail after we have examined the definitions of “knowledge” and “epistemic instrument” in section 2.3.

2.2 The Deviant Cases of Awareness

The other three awarenesses—doubt, hypothetical reasoning, and error—are ayathārtha. In the passage just cited, Keśava passes over the first two, because as members of the list of sixteen topics in NS 1.1.1, they are given their own chapters later in the text.

In the relevant chapter, he defines doubt as “the consideration of various opposed things in regard to a single locus;” in other words, the cognition of an exclusive disjunction.¹⁸ He gives

¹⁶This pair of terms is notoriously difficult to translate. Nyman (2005), for instance, is devoted entirely to examining their meaning for a small sample of Nyāya and Vaiśeṣika philosophers, and offers several of his own helpful, albeit quite complex, definitions. Common glosses include “true” and “veridical” for yathārtha and “false” or “non-veridical” for its negation ayathārtha, but as we shall see, these translations are misleading at best. The most obvious difficulty is that a disjunctive cognition of the form “either X or Y” is classified as ayathārtha, even when one of the disjuncts is true! While we can define these terms and state their extension, a concise English translation seems unavailable.

¹⁷Annambhaṭṭa’s definitions may further clarify the meanings of these two terms. He defines yathārtha awareness as “an awareness which places X before one, in regard to that which actually is X” (TS 37: tadvati tatprakārako ‘nubhavo yathārthaḥ) and ayathārtha awareness as “an awareness which places X before one, in regard to that which actually has the absence of X” (TS 38: tadabhāvavati tatprakārako ‘nubhavo ’yathārthaḥ). Note that these definitions only explain the categories of yathārtha and ayathārtha with regard to awareness, and not to recollection. The latter cases are defined parasitically on the former, at TS 74: “Recollection also is two-fold: yathārtha and ayathārtha. That which is produced from (the traces of) knowledge is yathārtha. That which is produced from (the traces of cognitions which are) other than knowledge is ayathārtha.” In both kinds of awareness, then, a cognition is presented in regard to some actual object (which might be either an external object or another cognition); but only in yathārtha awareness is the cognition caused by means of one of the four instruments of knowledge.

¹⁸KTBh 92.4–5: ekasmindharṁi viruddhanāṁarthāvamarsaḥ saṁsāyayāḥ.
three examples.¹⁹ First, there is the case of pseudo-perception,²⁰ where there is a perceptual connection to features which are common to two different sorts of things, as might occur at a distance, while none of the properties unique to either of the two are perceived. Devadatta might see, off in the distance, something which is tall, slender, and dark, but he cannot make out any of its other features (say, whether it possesses arms, a head, and a human face; or whether it has a squarish cross-section and wood-grain). The resulting cognition takes the form “either a post or a man.”²¹ Second, there is the case of defective testimony where there is no independent basis of evaluating conflicting opinions. One person asserts that sound is eternal; a second person asserts that sound is non-eternal; and a doubt of the form “sound is either eternal or non-eternal” arises for poor Devadatta, who is listening to the first two speakers. Finally, there is the case of pseudo-inference which attempts to reason from an overly-specific property.²² For example, in Keśava’s Nyāya-Vaiśeṣika ontology, where smell is considered to be a property which belongs exclusively to the element earth, someone attempting to use the inferential reason “possessing smell” would be left with two equally defective inferential cognitions of the form “the element earth is eternal, because it possesses smell” and “the element earth is non-eternal, because it possesses smell,” and no way to decide between them.

¹⁹cf. KTBh 92.5ff. The three examples are Keśava’s, with my own elaboration for context.
²⁰I refer to these cognitions as pseudo-perception because for Keśava, as we shall see below, conceptualized perception properly refers to the specific sort of connection (saṃnikarṣa) between sense-organ and object which is invariably productive of knowledge, and not simply to any cognition whose causes include a sense-organ (which might be functioning either properly or defectively). So too, mutatis mutandis, for my descriptions of “defective testimony” and “pseudo-inference.” This view of Keśava’s is shared by other Naiyāyikas, including Gaṅgeśa (cf. Phillips and Ramanuja Tatācharya 2004: 8; Dasti and Phillips 2010) and Annambhaṭṭa, who at TSD 69.iii explains the epistemic virtue (guṇa) responsible for a cognition’s being knowledge, as opposed to non-knowledge, in precisely the way he defines an epistemic instrument earlier in the work, and whose descriptions of the particular epistemic virtues in the perceptual, inferential, analogical, and testimonial cases match closely his definitions of perception, inference, analogy, and testimony simpliciter.
²¹These two disjuncts are, in accordance with Keśava’s explicit requirement, mutually exclusive—the object cannot be both a post and a man. Yet as Nyman (2005: 557n10) observes, the resulting disjunction is not a tautology.
²²That is, the putative inferential reason is actually the kind of pseudo-reason (hetvābhāsa) known as asādhāra-nānakāntika. I discuss the pseudo-reasons (including this variety, which I label H3b), in section 4 of chapter 3 (for the Buddhists) and section 2 of chapter 4 (for the Naiyāyikas).
The defect which is common to all three cases of doubt is that the disjunctive cognition is not caused by the things which make one or the other of the disjuncts true; i.e., by the sort of appropriate causal process which could generate a cognition of the true disjunct alone. In the perceptual case, for instance, a proper perceptual cognition (i.e., one which counts as perceptual knowledge, *pratyakṣa*) of the form “it is a post” would be produced by the connection of the visual apparatus with the particular features of the object which make it a post rather than any other sort of thing (the square cross-section, wood grain, etc.), and similarly for the perceptual cognition “it is a man.” Since the disjunctive cognition was produced neither by the connection of the sense-organ with the features unique to a post, nor by the connection of that organ with the features unique to a man, it does not qualify as knowledge. Doubting cognitions fall short of being knowledge not on account of their content, but because they lack the appropriate causal history.

Keśava defines the second kind of deviant awareness, hypothetical reasoning, as “the statement of an undesirable consequence.”²³ His examples suggest that this is akin to reasoning by reductio ad absurdum.²⁴ Such reasoning is an aid to the epistemic instruments, but is not such an instrument itself.²⁵ It is used to undermine an antecedent cognition which is contrary to how things actually are, but it does not itself supply the correct alternative cognition; it merely clears the way for such a cognition to be produced by one of the four epistemic instruments. For example, in the stock example of good inference, it has been previously well-established that smoke is pervaded by fire; that is, wherever smoke is found, there fire is also to be found. The

²³KT Bh 96.1: *tarko 'niṣṭaprasāṅga.*
²⁴Udayana and others offer a much more extensive typology of hypothetical reasoning, according to which reductio ad absurdum is but one of five (or more) varieties. See my discussion in section 3 of chapter 4.
²⁵I follow Keśava here in equivocating slightly on the word *tarka*, which can refer either to a process of reasoning or to the cognition arrived at through such reasoning. Such equivocation is also found, both in Sanskrit and in English, with the word “perception” (*pratyakṣa*), which can refer either to the perceptual faculty or to an individual awareness which results from the use of that faculty (“a perception”), and with the Sanskrit word for testimony (*śabda*). For inference and analogy, however, Sanskrit has distinct terms for the instrument and the cognition produced thereby: *anumāna* and *anumiti* for the inferential pair, and *upamāna* and *upamiti* for analogy and its resulting awareness.
properly-formed inferential cognition takes the form “this mountain possesses fire, since it possesses smoke.” Hypothetical reasoning based on this relation of pervasion would be employed against someone who thought that a certain mountain was not a locus of fire, but who acknowledged it to be a locus of smoke. Hypothetical reasoning would undermine the conviction that the mountain is not a locus of fire, because of the undesirable consequence that it would then not be a locus of smoke. A separate, positive inferential cognition could then quickly follow.

Finally, error, as indicated in the passage under discussion, is quite straightforward. It is simple misapprehension, taking something to be other than what it is. The fact that Keśava takes error to constitute a unique sub-type of \textit{ayathārtha} awarenesses (as opposed to being synonymous or co-extensive with \textit{ayathārtha} awareness in general) indicates that a cognition’s having mistaken or factually erroneous content is not the only way for it be \textit{ayathārtha}—a conclusion which is supported by my analysis of doubt and hypothetical reasoning.

### 2.3 Defining Knowledge and Epistemic Instrument

With this background in place, we are ready to examine Keśava’s definitions of “knowledge” and “epistemic instrument.” His discussion, which appears early in the first chapter of the text, begins as follows:

And here, first of all, since “epistemic instrument” is to be explained, its definition is stated: An epistemic instrument (\textit{pramāṇa}) is the instrument (\textit{karaṇa}) of knowledge (\textit{pramā}). And here, \textit{pramāṇa} is the definiendum, and \textit{pramākarana} is the definition.

Objection: If “the instrument of knowledge” is to be the definition of epistemic instrument, then its fruit must be mentioned, because of the rule that an instrument have a fruit.
Reply: That’s right. Knowledge alone is the fruit. The meaning of this word “fruit” is “what is to be brought about.” For example, cutting alone is the fruit of the axe, which is the instrument of cutting.

What, then, is this “knowledge,” whose instrument is a pramāṇa?

We reply: Knowledge is an awareness which is yathārtha. In this definition, the term “yathārtha” excludes cognitions which are ayathārtha, namely doubt, error, and hypothetical reasoning. The term “awareness” excludes recollection. Awareness is the name for any cognition which is other than recollection.

And what is an instrument?

It is the most effective cause.²⁶

The fifth paragraph of this passage, which defines knowledge as “awareness which is yathārtha,” connects directly to the typology of cognition presented above. In typical Sanskrit commentarial style, Keśava follows the definition by immediately unpacking each of its terms, explaining what sorts of things that term excludes from membership in the definiendum.²⁷

²⁶KT Bh 8.1–10.1: tatrāpi prathamam uddiṣṭasya pramāṇasya tāval lakṣaṇam ucyate | pramākaraṇam pramāṇam | atra ca pramāṇam lasyam | pramākaraṇam lakṣaṇam | nanu pramāyaḥ karaṇam cet, pramāṇam tadā tasya phalam vaktavam | karaṇasya phalavatvaniyamāt | satyam | pramaiva phalam | sādyam ity arthaḥ | yathā chidākaraṇasya paraśeś chidaiva phalam | kā punaḥ pramā, yasyāḥ karaṇaḥ pramāṇam | ucyate | yathārthānubhavaḥ pramā | yathārtha ity ayathārthānāṃ sansāyāvaparyayatarkajñānānāṃ nirāsaḥ | anubhava iti smṛter nirāsaḥ | anubhavo nāma smṛtyaṭṭhikāṃ jñānam | kiṃ punaḥ karaṇam | sādhakatamāṃ kāraṇam.

²⁷By way of comparison, Annambhaṭṭa (TS 37) offers the same definition of knowledge as Keśava, while Udayana offers a definition which differs slightly in its phrasing (“knowledge is awareness of the truth,” tattvānubhūtibhūtibhūtibhūtih phalā, LM 1.7–8), but his glosses on the two terms of the definition show that they each exclude from the definiendum precisely the same things as Keśava’s terms, and so the two definitions are equivalent. The term used here for “awareness” (anubhūti) is not precisely the same as that used by Keśava and Annambhaṭṭa (anubhava), though both are derived from the same verbal root.

I am tempted to translate tattvā in Udayana’s definition very literally as “x-ness,” rather than the more usual “truth,” for two reasons. First, just as with the term yathārtha, tattvā is limited to only the four types of awareness which are pramāṇa, while hypothetical reasoning, doubt (including cognitions of disjunctions where one of the disjuncts is correct), and error are explicitly said to be non-tattvā. To modern Anglophone philosophers, this would be a non-standard use of the word “truth,” and so avoiding that term would mitigate some confusion. Second, the gloss “x-ness” makes explicit the close similarity between this definition and Annambhaṭṭa’s definitions of yathārtha and ayathārtha discussed above. That is, each term of one definition, on its own, excludes precisely what a single term of the other definition excludes. This is stronger than merely for each definition, considered as a unit, to have the same exclusions. The latter, weaker requirement could be satisfied by convergence, after the terms within the
In his explanation of the term “epistemic instrument” (pramāṇa), Keśava stays quite close to the literal meaning of “instrument” (karaṇa), as the latter term is used by the grammarians. The epistemic instrument is that which brings about a particular result, namely knowing. More generally, like any instrument, it is the “most effective cause” of its result.

Udayana offers a closely related definition and explanation:

An epistemic instrument is the most effective [cause] of knowledge. ... “Of knowledge” excludes [actions such as] cutting, etc. “Effective” excludes causes which are not effective, such as ether, etc. “Most” excludes the knower and the object of knowledge.²⁸

While his statement of the definition does not significantly differ from Keśava’s, the exclusions Udayana draws in commenting on it are informative.

Without going too deeply into Indian theories of causation, we may note that the Naiyāyikas distinguish three types of cause: inherent, non-inherent, and efficient.²⁹ In the case of a piece of cloth, the threads are its inherent cause (samavēyikāraṇa); the cloth is said to inhere in the threads. Udayana mentions ether (ākāśa), which is considered to be the inherent cause of sound.³⁰

The non-inherent cause (asamavēyikāraṇa) is “that which is proximate to the inherent cause, and whose causal efficacy is established,” commonly by being a quality (guṇa) belonging to the inherent cause, which quality itself has some established causal role.³¹ In the case of a piece of cloth, the color of the threads and the conjunction of the threads are both non-inherent causes of the cloth. An efficient cause (nimittakāraṇa) is “that which is neither the inherent cause nor the non-inherent cause, but which is nonetheless a cause.”³² In the case of the cloth, the loom

²⁸LM 1.12–15: pramāyaḥ sādhakatamaṃ pramāṇaḥ | ... | pramāya iti cchidānāṃ vyudāsaḥ | sādhakety asādha-kānām ākāśādīnāṃ vyudāsaḥ | tamam iti pramātprameyayor iti.
²⁹KTBh 15.2–3: tac ca kāraṇam trividham | samavēyvasamavēyinimmittabhedat.
³⁰Sound resonates in, and is transported through, the ether.
³¹KTBh 20.2–21.1: yat samavēyikāraṇapratyāsannam avadṛtsāmarthyaṃ, tad asamavēyikāraṇam.
³²KTBh 25.1–2: nimittakāraṇam tad ucyate yan na samavēyikāraṇam nāpy asamavēyikāraṇam atha ca kāraṇam.
and the weaver are both efficient causes. Unlike the inherent and non-inherent causes, efficient causes can be removed or destroyed after the production of the effect without thereby destroying or altering the effect itself.

We have, then, an account on which an effect is brought about not merely by a single cause acting on its own, but by a complete complex of causes (sāmagrī). In the case of the cloth, each member of this causal complex—the threads, the conjunction of the threads, the blue color of the threads, the loom, the weaver, etc.—is properly called a cause (kāraṇa) of the cloth, but it is only when all these causes have been properly assembled (i.e., when the complete causal complex, the sāmagrī, has been brought together) that their fruit, the cloth, comes about. Of the members of this complete causal complex, the most efficient cause is called the instrument (karaṇa), while the others are called cooperating causes (sahakārikāraṇa).

Udayana’s exclusion statement for the term “effective” rules out the possibility of the epistemic instrument being either an inherent or a non-inherent cause. It must then be an efficient cause. His exclusion statement for “most,” which rules out the knower and the object of knowledge after the inherent and non-inherent causes have already been excluded, tells us that the knower and the object are also efficient causes of knowledge, and so there are multiple such efficient causes. The epistemic instrument is the one which is preeminent among these. The Nyāya epistemologists will explain each of the epistemic instruments—perception, inference, analogy, and testimony—as a causal process which is uniquely capable of bringing about a certain sort of awareness. Since Keśava and his fellow Naiyāyikas consider perception to be the paradigm case of a knowledge-producing process, I will examine this epistemic instrument in the greatest detail, before briefly summarizing Keśava’s views on the other three instruments. I discuss Nyāya theories of inference in chapter 4.
2.4 Perception

In the case of perception, Keśava provides three different characterizations of precisely what the instrument is. He explains:

And this [perceptual knowledge] is of two kinds, because of the division between non-conceptual and conceptual perception. And its instrument is of three kinds: sometimes it is a sense-organ, sometimes it is the connection of sense-organ and object, and sometimes it is a cognition.

When is a sense-organ the instrument?

When the fruit is non-conceptual knowledge, then the instrument is a sense-organ. That is, the self is connected to the mind, the mind to the sense-organ, and the sense-organ to the object, by the rule that the sense-organs are the cause of cognition only after having met with their object. Then, by means of the sense-organ, which has connected with the object, a cognition called “non-conceptual” is produced, which cognition presents a mere external object devoid of any connection to class, etc., [of the form] “this something.” The sense-organ is the instrument of this cognition, just as the axe is the instrument of cutting. The connection of sense-organ and object is a cooperating cause, like the axe’s connection with the tree in the case of cutting. Non-conceptual cognition is the fruit, as cutting is the fruit of the axe.

And when is the connection of sense-organ and object the instrument?

When a cognition is produced which immediately succeeds a non-conceptual cognition, which is called “conceptual,” which is characterized by having a connection with class, etc., such as “This is Ḍīthā,” “This is a brahmin,” or “This is black,” and which is characterized by the relation of qualifier and qualified, then the connection of sense-organ and object is the instrument. The non-conceptual cognition is the cooperating cause. Conceptual cognition is the fruit.
And when is a cognition the instrument?

When cognitions of aversion, pleasure, or indifference immediately succeeding the conceptual cognition just mentioned are produced, then the non-conceptual cognition is the instrument. The conceptual cognition is the cooperating cause. The cognition of aversion, etc., is the fruit.⁵³

On the first characterization, the instrument is the sense-organ (indriya), defined as “that which is conjoined with the body, is an instrument of cognition, and is itself beyond the scope of the sense-organs.”³⁴ Udayana offers a similar formulation, elaborating somewhat on the second term of the definition: “a sense-organ is that which is conjoined with the body, is the cause of knowledge which makes its objects immediately present, and is itself beyond the scope of the sense-organs.”³⁵ There are six of these organs: the familiar five external organs of smell, taste, sight, touch, and hearing, which make known the corresponding sorts of external objects, and one internal organ, the mind (manas), which is responsible for apperceptive awareness of cognitions. On the second interpretation, the instrument of perceptual cognition is the connection (sāṃnikarṣa) of sense-organ and object.³⁶

³³KTBh 27.4–28.3: sā ca dvividhā savikalpakanirvikalpakabhedā | tasyāḥ karaṇaṃ trividham | kadācid indriyam | kadācid indriyārthasamnikarṣah | kadācj jñānam | kadā punar indriyam karaṇam | yadā nirvikalpakarūpā pramā phalam tadendriyam karaṇam | tathā hi | ātmā manasā samyujyate | mana indriyaṇa | indriyam arthena | indriyānāṃ vastuprayajñānakāritvaniyamāt | tato ’rthasamnikṛṣtenendriyaṇa nirvikalpakam nāma jātyādiyojanāhānam vastumātrāvagāhi kincid idam iti jñānam janyate | tasya jñānasendriyaṃ karaṇam | chidāyā iva paraśaḥ | indriyārthasamnikarṣo ’vāntaravyāpāraḥ | chidākaraṇasya paraśos iva dārusamyogah | nirvikalpakam jñānam phalam | paraśos iva chidā | kadā punar indriyārthasamnikarṣah karaṇam | yadā nirvikalpakajñānānāntaraṃ savikalpakam nāma jātyādiyojanātmaṃ dītho ’yam brāhmaṇo ’yam śyāmo ’yam iti viśeṣanaviveśayāvagāhi jñānam utpadyate, tadendriyārthasamnikarṣah karaṇam | nirvikalpakajñānam avāntaravyāpāraḥ | savikalpakam jñānam phalam | kadā punar jñānam karaṇam | yadoktasaṃnikalpakajñānānāntaraṃ hānopādānopeksābuddhaya jāyante tadā nirvikalpakam jñānam karaṇam | savikalpakam jñānam avāntaravyāpāraḥ | hānādibuddhayaḥ phalam.

³⁴KTBh 67.1: sārirasamnyuktam jñānakaraṇam atindriyam indriyam. The third term of the definition, “that which is itself beyond the scope of the sense-organs,” means that the sense-organs themselves are not perceptible, but are known only through inference. The inference turns on the theory of instruments and their fruits presented earlier: “Perceptions of visible form, etc., are the result of an instrument, because of their being actions/events, like the event of cutting.”

³⁶Sāṃnikarṣa is a technical term whose usage is restricted to just this connection between sense-organ and object. Cf. ŚV pratyakṣa 60, where the Miṃśāsā philosopher Kumārila lists five options for what the epistemic instrument
Patil (2009: 39n18) suggests that Keśava’s first two interpretations simply reflect historically older and newer versions of the Nyāya view, with Keśava acting as a chronicler who refrains from deciding between them. While this historical claim may be true with respect to other Naiyāyikas, a close reading of Keśava’s text indicates that he, at least, relies on both models, using each of them to explain a different kind of perception. Keśava is concerned to explain the difference between the indeterminate awareness of a bare particular—a mere something out there in front of the perceiver—and the determinate awareness of a particular as qualified by the possession of certain universals, qualities, and relations to other particulars. While we do not ordinarily attend to the former indeterminate awarenesses, Keśava, like his fellow Naiyāyikas, takes such awarenesses to be necessary both for explaining the apparent relation of qualifier and qualificandum which occurs in conceptual awareness (since a conceptual awareness like “this is a pot” requires some antecedent awareness of the qualificandum “this” before the qualifier “pot” can be predicated of it), as well as accounting for deviant cases of error and perceptual illusion.³⁷

For each variety of perception, Keśava mentions its instrument as well as one of the cooperating causes which are part of the larger causal complex.³⁸ In non-conceptual perception, one of perception might be. Both Kumārila and (more importantly) his prose commentator Umveka reserve saṃnikarṣa for the connection of sense-organ with object, using saṃyoga, from saṃyuj, for the connection of mind with sense-organs, and of self with mind. This accords perfectly with Keśava’s usage in the present passage. Keśava elaborates six different forms which the connection of sense-organ with object might take (KTBh 28.6ff), which are motivated by details of his ontology which will not detain us here.

³⁷In these deviant cases, the sense-organ correctly generates an awareness that something is there—the instrument of this non-conceptual perceptual awareness functions in the appropriate causal manner—but the second distinct causal process, which is responsible for the conceptualized awareness of (say) a rope, goes awry. Either by a defect in the specific instrument (i.e., the connection of sense-organ with object) or by the intrusion of the memory of another similar sort of object, one has the conceptualized awareness “this thing is a snake.” While the snake-cognition is certainly erroneous, it is not wholly disconnected from the real external world, since it is imposed on the true non-conceptual cognition—the knowledge—of the indeterminate object. We are then in a position to distinguish this sort of error from the outright hallucination of a snake where no real object exists at all. While the earlier mistaken perception of a snake was an awareness (albeit a defective, ayathārtha, awareness) in whose production an epistemic instrument and an actually present object played a causal role, the hallucinatory cognition is not an awareness at all, but merely a recollection caused entirely by the traces of past cognitions, and not by any present thing. For an extended discussion of the importance of non-conceptual perception in Nyāya philosophy, see Chakrabarti 2000 and the response in Phillips 2001, and the subsequent exchange in Chakrabarti 2004, Siderits 2004, and Phillips 2004.

³⁸Cf. my discussion of cooperating causes and the complete causal complex (sāmagrī) on page 28 above.
the cooperating causes is some instance or other of a special connection of the sense-organ with the distinctive features of the object perceived; for instance, the connection of the visual apparatus with the color-quality black (rather than, say, red or yellow). But since the causal result in non-conceptual perception is the simple awareness of a bare particular, any such particular connection would suffice to fill out the complete causal complex. Whether my visual organ were to be connected with black color or red color, with the features unique to Devadatta or to Ğittha, still, the same fruit, the mere awareness of “this” would result. So in these cases, the special connection is just one of the cooperating causes, and not the instrument. The instrument—the most effective cause, without which a fruit of this exact kind would not arise—is simply the sense-organ itself, without which there would could not be this non-conceptual awareness.

In conceptual perception, there must be an immediately antecedent nonconceptual awareness of a bare particular, of which some concept can be predicated. But since such a non-conceptual awareness will precede any conceptual cognition—whether of Devadatta or of a black pot—it cannot be the most efficient cause, the instrument, of any particular conceptual awareness. It is merely one of the cooperating causes. The instrument is the sensory connection with the particular features that distinguish one thing from another, and which therefore make the difference between the arising of a cognition of Devadatta and a cognition of something else.

2.5 Inference, Analogy, and Testimony

In inference, the instrument is another cognition, namely, the special consideration of an inferential reason (liṅga) as belonging to an inferential locus, and as pervaded by the property to be inferred. To elaborate: the stock example of inferential cognition takes the form “This mountain possesses fire, because it possesses smoke, like the kitchen hearth.” The inference moves from one property, known as the inferential reason or cause of the inference (here, smoke), to another tar-
get property (here, fire), both of which are present in the same well-known locus (the mountain), since the cogniser knows that the reason property is always accompanied by the target property.

The third instrument, analogy, is best understood by first considering its fruit. Keśava explains:

Analogical knowledge is knowledge of the relation between a name and the thing named, e.g., “This object, which looks like an object qualified by similarity to a cow, is called by the word ‘water buffalo.’”

The idea is that Devadatta has previously been told that a water buffalo is an animal which resembles a cow, but differs in certain (specified) respects. Still, Devadatta has never actually encountered a water buffalo. When he finally does, he has the cognition of an object qualified by similarity to a cow. This cognition, together with his recollection of the meaning of the sentence “A water buffalo resembles a cow,” constitute the epistemic instrument, which provides him the cognition “This is a water buffalo.”

The final epistemic instrument, testimony, is defined by Udayana as “the most effective cause of knowledge produced by speech.” Here, meaningful speech itself generates an awareness in the listener which, provided some appropriate conditions are met, qualifies as knowledge. Keśava elaborates:

Testimony is the meaningful speech of a reliable expert. A reliable expert is a teacher of a thing according to how it really is. Meaningful speech is a collection of words having completeness of sense, fitness of sense, and proximity.

Any utterance which satisfies these three conditions for meaningful speech—completeness of sense, fitness of sense, and proximity of the words to each other—is sufficient to produce a cogni-

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39 KTBh 45.9–10: upamitis tu gosādrśyaviśiṣṭapiṇḍadarśanānītaram asau gavayaśabdavācyaḥ pīṇḍa iti samjñā-
samjñīsambandhapratipattī.

40 LM 2.16: vākyaipramādhakatamāḥ sābdāḥ.

41 KTBh 46.1–47.1: āptavākyam śabdah | āptas tu yathābhūtasyārthasyopadeśā puruṣaḥ | vākyaṁ tv ākāṃkṣāyo-
gyatāsanidhimatām padānāṁ samūhaḥ.
tion of some sort, but not to guarantee that such a cognition would constitute knowledge. Mere meaningful speech, then, is not an epistemic instrument. It is only the meaningful speech of a reliable expert (āpta) which generates knowledge in the hearer, and which, therefore, is the final epistemic instrument.

3 Belief in Keśava’s Epistemology?

3.1 Truth and True Belief

With Keśava’s basic account of knowledge and cognition in place, we can now consider the relation of this account to modern theories of knowledge as a species of true belief. In this section, I will demonstrate why it is inappropriate to gloss the Sanskrit term for knowledge (pramā) as “true belief,” and will further illustrate why Keśava’s cognitions are not even the sorts of things which can be true in the way that beliefs are.

With regard to the first issue, there is a general problem, not limited to the context of Keśava or of Nyāya philosophy, with the practice of quickly, even reflexively, rendering the Sanskrit term pramā as “true belief.”⁴² Namely, this practice conflates the analysis of a concept with the analysandum. Formulations like “(justified) true belief,” in the Anglo-American philosophical tradition, are intended to provide a substantive analysis of knowledge, explaining what features of certain mental states make it the case that those mental states constitute knowledge. Such an analysis makes a non-trivial claim about its analysandum (here, knowledge), and can be shown to be defective, in an (often implicit) appeal to some antecedent notion about the extension of the analysandum or to some other conceptual requirements or desiderata. Gettier (1963) presented just such a challenge to the analysis of knowledge as mere justified true belief, prompting philosophers to revise their analyses. In Anglo-American philosophy today, a number of con-

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flicting analyses are offered, either making additions or minor revisions to the justified true belief account (such as requirements for access to evidence, being formed by reliable mechanisms, or being formed in the presence of the appropriate truthmakers), or by asserting a conceptual priority of knowledge over belief such that the former is not at all to be defined in terms of the latter.⁴³ Nevertheless, all of the philosophers involved in this debate take themselves to be talking about the same thing, despite the divergence of their respective analyses. Similarly in the Indian context, epistemologists of various schools took themselves to be having a substantive argument in their disputes over the proper understanding of *pramā*, *pramāṇa*, etc. Given this state of things, we should not be too quick to privilege any one analysis in our translations of key terms and concepts. The practice of Ganeri and others of translating the Sanskrit term *pramāṇa* as “true belief” (rather than the more neutral “knowledge”) is therefore unacceptably arbitrary and inappropriate in any context. This is not to say that, after a Sanskrit text has been translated and understood on its own terms, some modern account of knowledge cannot be brought in by way of challenging the philosophical adequacy of an Indian view. Such practices will be necessary if we are to engage with classical Indian texts as works of philosophy. We must simply take care not to prejudice our translations and interpretations by assuming that such analyses are contained within the Sanskrit texts themselves, or are presupposed by their Indian authors.

Furthermore, belief is ordinarily understood to be the sort of thing which can be the possessor of an epistemically important property—truth—in a derivative way.⁴⁴ That is, propositions are posited as the primary bearers of truth and falsity. A belief gets its truth or falsity from the proposition which is its content. A belief is true if and only if the proposition believed is true, where the righthand side of the biconditional explains the left. There is no property which Keśava finds relevant to his theory of knowledge which cognitions or awarenesses have in virtue of their

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⁴³ Most notably, Williamson (2000: 47–48) rejects what he terms a conjunctive account of knowledge as belief plus some other factors, while remaining open to a disjunctive account of belief as being “either knowledge or ...”

⁴⁴ I have already demonstrated, in section 2.1, that *yathārtha* (in the definition of knowledge as *yathārtha anubhava*) does not mean “true.” See especially note 16 on page 22.
cognitive objects having that property. This is not to deny that cognitions and their objects have certain properties in common, such as existence and being knowable. But such trivial properties are unlike truth, since they are had by everything (including all cognitions, and all objects of cognition), and so the having of these properties by a cognitions is not to be explained by its object also having them.⁴⁵

3.2 Events and Dispositions

Additionally, beliefs are commonly taken to be dispositions, or at least some kind of standing feature of a believing person. While there is certainly an occurrent sense of believing, for which an agent must be actively thinking about the thing he believes, this is not how philosophers ordinarily use the term. Rather, agents have a great number of beliefs simultaneously, even long after they were formed, and even while they are not being actively reflected upon. We say that Devadatta believes that God exists, and that Santa Claus does not exist, and that grass is green, even when he is thinking about something other than God, Santa Claus, or grass. Formal epistemology is concerned with the maintenance and revision of these standing beliefs. By contrast, Keśava’s cognitions—both awarenesses and recollections—are occurrent, event-like things. As such occurrent events which occur singly, it is inconceivable that they could ever by closed under deduction. It would be nonsensical even to ask whether knowledge, as occurrent cognition, has epistemic closure.

There is, however, another element in Keśava’s theory which does seem dispositional: the psychic traces (saṃskāra) known as impressions (bhāvanā), which are the causes of recollection. Keśava’s only mention of these impressions occurs not in the context of explaining knowledge

⁴⁵In case of recollection, there is a property which is had derivatively: the property of being yathārtha (that is, the property yāthārthya). A recollection is yathārtha just because it is generated from psychic traces, or dispositional impressions, which were themselves produced by an awareness which was yathārtha. Note, however, that while this is a derived property, it is derived not from the object of the recollection, but from the earlier cognition which is a cause, but not an object, of memory.
and its instruments, but in the course of enumerating a complete ontology according to the Vaiśeṣika tradition. In its entirety:

The trace called “impression” is found in the soul. It is produced by awareness, and is the cause of recollection. And it produces recollection only when it is aroused. This arousing is the apprehension of a cooperating cause. And these cooperating causes are the sight of something similar to the trace, etc. As it has been said: “Similarity, unseen agency, active thought, etc., are those things which arouse the seeds of recollection.”

Of all the things in Keśava’s system, impressions are, perhaps, the closest candidates for being beliefs. They are dispositional, a person can have a large number of them simultaneously and for long periods, and they are produced by cognitive awareness. But while impressions may be a good candidate for being beliefs of some kind or other, they are not the sort of belief which epistemologists generally want. They are produced by every awareness (and not simply by the veridical ones), there is no mechanism by which they can be removed or revised, and they neither underwrite inference nor provide any direct justification for other beliefs. Because an impression having any specific content is only formed from a cognition of that same content, impressions cannot possibly have deductive closure.

Most importantly, whether or not we refer to these impressions as beliefs, Keśava has no place for them in the process of knowledge-generation. Recall the twofold distinction of cognition into awareness and recollection, where only the former are even candidates for being knowledge.

An impression is formed “downstream,” after the awareness which already was or was not knowl-

KITBh 86.2–5: bhāvanākhyas tu saṃskāra ātmavṛti | anubhavajanyah | smṛtihetuḥ | sa codbuddha eva smṛtim janayati | udbodhaḥ ca sahakārilābhah | sahakārinaḥ ca saṃskārasya saddrādāsānādādayah | yathoktam | saddrādāsācintāntādyāḥ smṛtibijasya bodhakāḥ.

By “other beliefs,” I mean other things of the same sort; i.e., other impressions.

For the distinction between awareness and recollection, see the beginning of section 2, and figure 2.1 on page 20.
edge, and it does not produce any future awarenesses, but serves only for the production of future recollections, which are never, on Keśava’s account, candidates for being knowledge.

So if, for the sake of argument, we call these impressions “beliefs,” then knowledge, as Keśava is interested in it, produces beliefs, but is itself neither a species of belief, nor is it generated from belief. Even if, due to some defect in his cognitive powers, Devadatta were unable to form any beliefs (i.e., impressions, saṃskāra) all of the epistemic instruments could still function unimpeded,⁴⁹ and he would still have all the same knowledge-events (pramā). Clearly, then, the occurrent, event-like awarenesses which can constitute knowledge are deeply unlike the (dispositional) beliefs which contemporary epistemologists are accustomed to considering.

3.3 Assent and Higher-Order Awareness

In everyday usage, belief—especially occurrent belief—seems to require assent on the part of the cognising agent. Occurrent belief, moreover, seems to presuppose some minimal awareness of the present act of believing on the part of the agent. Most flatfootedly, we regularly declare “I don’t believe it!” when presented with an inferential conclusion, a definitive utterance, or even a perceptual awareness, whose content we understand perfectly well. For a more nuanced example, consider the perceptual experience of a stick placed partially into a body of water. Even though the stick is really straight, under these conditions, Devadatta will have an awareness of a stick having the quality of being bent.⁵⁰ But since Devadatta has had a great deal of experience in observing such phenomena, he knows that the stick is not bent at all. Having recognized the non-veridical awareness for what it is, he may even go on to infer the presence of a straight stick. Yet all of this does nothing to change the content of Devadatta’s visual experience, in which the stick appears as bent.

⁴⁹With the exception of analogy, which requires the recollection of the meaning of an earlier utterance. In the stock example, Devadatta recalls the meaning of the utterance “A water buffalo is like a cow,” which he heard previously.
⁵⁰Given their strict reliabilism, the Naiyāyikas would actually say that such an awareness is pseudo-perceptual (pratyaksābhāsa), but in a strict technical sense, not really perception at all.
The discussion in the preceding sections has focused on issues in first-order knowledge and cognition. In this section, I will step back to consider problems of higher-order awareness in Keśava’s epistemology, to show that assent is downstream from knowledge events.

Keśava explains:

Cognition, indeed, is grasped by mental perception. Knowledgehood, however, is grasped by inference.

That is, following a cognition of water, the action of a person desirous of water is of [either of] two kinds: fruitful and fruitless. Of these, the fruitful action is the one which achieves its aim. From this, the yathārtha-ness of the cognition is inferred.

And the inference is: “The cognition of water which is under dispute is knowledge, because of being productive of action which achieves its aim. That which is not knowledge is not productive of action which achieves its aim, like pseudo-knowledge.”⁵¹

Keśava’s example will help to clarify the process. Devadatta begins by having a cognition of water. This may have arisen via perception (he sees the water before him), via inference (based, perhaps, on steam or mist rising in the distance), or via testimony (a trusted, knowledgeable person informs him of the water). The object of this cognition is simply the water itself. Reflecting on his mental life, Devadatta then has another awareness, which he might express in the form, “I have just now seen some water.” The object of this second awareness is not the water, but his seeing (or inferring, learning by testimony, etc.). Still, Devadatta does not have certainty that his cognition is knowledge. It might be that the glimmering he saw was actually a mirage. So he approaches the water and takes a drink. Since Devadatta acted successfully on the basis of

⁵¹KTBh 60.10–61.2: jñānam hi mānasapratyakṣena grhyate | prāmānyam punar anumānena | tathā hi | jalajñāna-\n\nantaraṃ jalārthiṇaḥ pravṛttrī dvedhā | phalavatya aphalā ca | tatra phalavatī pravṛtthā śāyā samarthā | tayā jñānasya yātḥārththyam anumīyate | prayogaś ca | vivādāspadibhūtaṃ jalajñānaṃ pramāṇaṃ samarthapravṛttijanakatvāt | yat tu na pramāṇaṃ na tat samarthapravṛttijanakam | yathā pramāṇābhāsāḥ.
his awareness of water, he can now infer that the original cognition which prompted his action was veridical. The object of this third awareness is neither the water nor the cognition of water, but knowledgehood \((\text{prāmāṇya})\), specifically, the knowledgehood belonging to that cognition of water. That is, the third awareness is a cognition of the property “being knowledge” which belongs to the initial cognition of water. On this model, Devadatta has three distinct cognitions:

\(\text{C}_1\) An initial cognition (the cognition of water)
\(\text{C}_2\) A cognition of the initial cognition \(\textit{qua}\) cognition
\(\text{C}_3\) A cognition of the initial cognition’s being knowledge

Keśava takes it that \(\text{C}_1\) may be produced by any of the epistemic instruments, while \(\text{C}_2\) is always apperceptive, and \(\text{C}_3\) is inferential. His argument for this is straightforward.\(^{52}\) The distinction of \(\text{C}_2\) from \(\text{C}_1\) is motivated by Keśava’s strictly causal account of the production of cognitions. Whenever a sense-organ contacts an object, for instance, a perceptual awareness is generated. Such contacts would seem to happen all the time, even when we are not attending to them. A particularly clear case, albeit one which depends on other commitments in Keśava’s system, involves non-conceptual perceptions. While we can think about such perceptions in a general, abstract way, we are never directly aware of any particular one of them. As I explained in section 2.4 above, non-conceptual perceptions must occur, in order to provide the qualificanda for predicative awareness, but we only directly experience the subsequent conceptual cognitions. And insofar as we ever wonder whether a particular cognition is or is not (genuine) knowledge, then we must be aware of that initial cognition (that is, we must have \(\text{C}_2\), whose object is \(\text{C}_1\)) prior to the occurrence of \(\text{C}_3\).

Every cognitive agent, then, has many cognitions of which he is not aware, some of which may, on Keśava’s understanding, count as knowledge. Insofar as awareness of \(X\) is necessary before one can assent to \(X\), then assent is downstream of knowledge. The cogniser only forms

\(^{52}\)A more sophisticated defense of the view is found in the second chapter of Udayana’s NKA.
a judgment about C₁ (such as the judgment that there really is water before his eyes) when C₃ is produced. And if the inferential process which should generate C₃ goes awry, C₁ will still constitute knowledge, in virtue of the epistemic instrument by which C₁ was generated, but the cogniser will not assent to C₁. The theory is thus a version of strict causal reliabilism, on which cognition (and knowledge, as a special type of cognition) is unlike our everyday notion of belief in not requiring assent or acknowledgement on the part of the agent.

4 Conclusion

Keśava Miśra’s Nyāya epistemology understands knowledge as an event, caused by one of the four epistemic instruments. Given the details of his epistemology and ontology, employing the term “belief” in translating or interpreting this theory would inevitably import various commitments which Keśava himself does not share. These mistaken foreign commitments include treating cognitions as things which possess truth in any interesting way; treating instances of knowledge as (akin to) standing dispositions; and supposing that cognitive agents assent to, or are even aware of, the things they know.⁵³

Keśava’s philosophy is rigorous and fruitful in its own right, and deserves to be studied on its own terms, apart from our own preconceptions. Indeed, one reason that classical Indian philosophical texts are especially interesting as works of philosophy is that, while addressing philosophical problems which are closely akin to problems in Western philosophy, they divide basic concepts differently. This can help those trained in European and American philosophy to gain new perspective on their own modern theories and approaches to knowledge and cognition, and

⁵³These three foreign commitments are not fully compatible with each other. Rather, reflecting as they do the various live interpretations of belief by analytic philosophers and ordinary speakers of English, they present a list of discrete errors, such that an account which avoided all three of the foreign commitments would stand quite outside both the philosophical and ordinary-language uses of “belief.”
will set the ground for a substantive and fruitful intellectual exchange with the thinkers of classical India.

It is within this broad context of knowledge as an event, brought about by some particular causal process, that the Buddhist and Nyāya theories of inferential reasoning, examined in the next two chapters, are properly situated.
Chapter 3

Dharmottara’s Transformation of Dharmakīrti’s Buddhist Theory of Inference

In this chapter, I will turn to the accounts of inferential reasoning (anumāna) given by members of the Buddhist epistemological school in India. As we saw in chapter 2, for Indian epistemologists, inference is a causal process which results in knowledge, understood to be an occurrent awareness. The model of inference presented in this chapter will, in turn, be used by the Buddhist thinkers to present their formal inference for universal momentariness.

Beginning with Dharmottara in the 8th century, philosophers in the Buddhist epistemological tradition in India routinely defend their inferences by means of an indirect proof procedure, according to which an inference is justified merely by showing that the inferential reason property (hetu) is not defective in any of a finite, and rather small, number of ways.¹ Putative reasons which are defective in one of these ways are known as the pseudo-reasons (hetvābhāsa). In this paper, I will defend three related claims: first, Dharmottara substantively transforms his predecessor Dharmakīrti’s theory of inference, by giving the pseudo-reasons a central place in a newly

¹I provide several illustrations of this method in section 5.1, after I have explained all of the relevant technical apparatus.
cogniser-centered account of good inferential reasoning; second, that Dharmottara and his successors self-consciously take this indirect proof procedure to be sufficient and acceptable; and third, that this procedure is in fact a good one.

After introducing a basic conceptual framework in section 1, in section 2, I present two versions of the Buddhists’ well-known “triple conditions” (trairūpya) for a genuine inferential reason: the more objective account of Dharmakīrti, and Dharmottara’s more subjective, cogniser-centered account. I then proceed to consider, in section 3, what sorts of properties can, on their account, satisfy these conditions. After presenting Dharmottara’s three varieties of pseudo-reason in section 4, I consider, in section 5, how he and the later Buddhists can and do defend the basic claim, which underlies their indirect method of justifying an inference, that a property is a genuine inferential reason if and only if that property is not one of these finitely many sorts of pseudo-reason.

For my discussion, I will rely on Dharmottara’s Nyāyabinduṭīkā (NBṬ), a commentary on the Nyāyabindu (NB) of Dharmakīrti. As is often the case in Indian intellectual history, Dharmottara here presents an innovative account, under the guise of merely explaining the meaning of Dharmakīrti’s earlier text. While I will make some reference to the works of Dharmakīrti himself, my primary concern is with the Buddhist theory of inference as elaborated and transformed by Dharmottara. I will also make use of a later textbook of Buddhist epistemology, the Tarkabhāṣā (MTBh) of Mokṣākaragupta. Mokṣākaragupta’s discussion of the relevant issues closely follows that of Dharmottara in the NBṬ, but Mokṣākaragupta is quite helpful in providing examples where Dharmottara gives none, and spelling out completely examples which Dharmottara presents in a compact or elliptical form. In those few cases where the differences between Dharmottara and Mokṣākaragupta are of substance and not merely of elaboration, it is consistently the former thinker who is more philosophically astute.
1 Basic Concepts

Mokṣākaragupta begins by distinguishing two types of inference: inference for oneself (svārthānumāna) and inference for others (parārthānumāna). Of these, it is the former which, strictly speaking, constitutes the epistemic instrument (i.e., the causal process generative of knowledge) known as inference. Inference for oneself is a cognition, which is a necessary condition for being an epistemic instrument on the Buddhist account. As I demonstrated in chapter 2 of my dissertation, the cognitions in which Indian epistemologists are interested, and of which knowledge (pramā) is a special case, are something occurrent and event-like, rather than being some kind of state or disposition. The basic project of these epistemologists is to analyse the instrumental causes which bring about those privileged cognitive events which constitute knowledge. Specifically, for the case of inferential knowledge, Mokṣākaragupta explains,

Having seen smoke, etc., in a locus such as a mountain, etc., a cognition of fire is produced for the person who is inferring, by means of which cognition of fire, the person who is inferring—and not someone else—cognises a remote object. This is called inference for oneself.²

Inference for others, by contrast, is a verbal or linguistic utterance, by means of which some other person is caused to cognise something; that is, an inference for others is an utterance which brings about a specific kind of cognition—an inference for oneself—in another person, for which reason the inference for others is also, by an analogical extension of the term, called an inference.

In the above definition, Mokṣākaragupta includes the primary components of the stock example of a good inference, to which it will be helpful to refer. In this example, the cogniser infers that there is fire on a certain mountain, because of his observation of smoke on that same mountain. Altogether, any inference will have five parts: two properties (the reason H, and the

²MTBh 24.3–5: parvatādau dhārmini dhīmādikāṃ dṛṣṭvā yasya pratipattūḥ vahniṇnānam utpadyate, sa eva tena jñānena paroṣam arthaṃ pratipadyate nānya iti svārthānumānam ucyate.
target \( S \), and three (groups of) property-possessor (the locus \( P \), the similarity class \( SP \), and the dissimilarity class \( VP \)).

In the first place, we have an inferential locus (\( pakṣa \) \( P \), in this case, the mountain. \( P \) is always a property-possessor (\( dharmin \)) which is known to possess the reason-property (\( hetu \), \( sādhana \)) \( H \), which in this case is smoke.³ This is an incredibly broad use of the term “property,” which includes nearly anything which can be located in or on some property-possessor to which it belongs. Thus, blue color is a property of a certain pot, but the pot, which is, let us say, located on a certain part of the ground, is also considered by this usage to be a property of the ground. In the stock inference, both smoke and fire are properties which are located on the mountain.

Continuing with the stock example, we have a target-property (\( sādhya \) \( S \), fire, which is to be established by inference to be located in the inferential locus \( P \).⁴ In the fullest form of the inference, there are also two examples, one similar, possessing both the reason property \( H \) and the target property \( S \), and the other dissimilar, possessing neither \( H \) nor \( S \). Standardly, the two examples in the “fire on the hill” inference are the kitchen and a lake, respectively. Here, Mokṣākaragupta provides only the former.

Mokṣākaragupta’s two examples, together with the inferential locus \( P \), illustrate the basic divisions in the epistemic universe of property-possessors. In addition to \( P \), the site or sites in which the presence of \( S \) is previously unknown, and now to be determined by inference, we have the similarity class (\( sapakṣa \) \( SP \), of which the similar example is a member, and the dissimilarity class (\( vipakṣa \) \( VP \), of which the dissimilar example is a member. \( SP \) and \( VP \) are defined relative to the target property \( S \), such that \( SP \) includes all and only those loci which are known to possess \( S \), and \( VP \) includes all and only those which are known to not possess \( S \). So in the stock example, \( SP \)

³For the sake of consistency with the existing scholarly literature on Indian theories of inference, I abbreviate the various components of the inference from their Sanskrit names.
⁴Some translators refer to the reason property and target property as the prover and the probandum, respectively, a usage which has the virtues of reflecting the fact that both terms are formed from the same verbal root, and of translating the Sanskrit gerundive (prescriptive passive participle) ‘\( sādhya \)’ with a Latin gerundive (future passive participle) ‘probandum.’
would include such loci as the kitchen, a furnace, and a red-hot iron bar, in which fire is known to be present, regardless of the presence or absence of H, smoke, in those places. In fact, while the kitchen is standardly agreed to possess both fire and smoke, the red-hot iron bar is the most common example of a property-possessor in which fire is found, but smoke is not. Likewise, membership in VP is determined only by the absence of S, regardless of the presence or absence of H. Mark Siderits (2003: 307) helpfully observes that the particular dissimilar example cited in the stock inference, the lake, is not merely some arbitrary member of VP, but rather is an instance of a property-possessor which, prior to careful examination, could easily be mistaken for a site in which S is present. In the case of the lake, this easy mistake would be due to the steam which rises from the lake early in the morning, and which bears a superficial resemblance to smoke.

Under this Buddhist model, a successful inference must have an inferential locus P, a similarity class SP, and a dissimilarity class VP. As such, a case in which either the similar example or the dissimilar example cannot be produced is immediately problematic.⁵ When the stock example is stated in its standard form, “There is fire on the mountain, because of its smoke, like in the kitchen, and unlike in the lake,” P, S, and H are given explicitly, while the positive and negative examples indicate that both SP and VP are non-empty. The same inference could also be formulated “The mountain is fiery, because of its being smoky,” still expressing the all of the same relations between P, S, and H.

2 Conditions on the Reason Property

Given this inferential machinery, there remains the essential task of determining which cognitive events are good inferences (for oneself) and which verbal utterances having the above structure

⁵The formal classification of this problem will be discussed below. As I discuss in subsequent chapters, the need to have SP and VP distinct from P drives much of the debate over the momentariness inferences. While Udayana makes much of this difficulty for his Buddhist opponent, under the Nyāya model of inference, this requirement is weakened considerably.
are good inferences for others (and which, therefore, are generative of cognitions which are good
inferences for oneself). Insofar as an inference for others (the linguistic expression) is neces-
sarily generative of an inference for oneself (the cognitive knowing-event), then the question of
which verbal utterances are inferences for others depends on whether the cognition generated by
that utterance is a genuine inference for oneself. So provided that we leave aside worries about
deviant cases in which an utterance which would normally constitute an inference for others
should misfire (say, because the listener does not hear the words correctly, or does not speak the
language), answering the question of whether a cognitive event of a certain form is or is not an
inference for oneself, gives us the answer to the further question, of whether a verbal utterance of
a certain form is or is not an inference for others. Because a philosophical conversation about an
inference for oneself is made possible by mentioning the linguistic form of that inference, we, like
the Sanskrit epistemologists, often will be forced to equivocate on these two questions. We have
only one philosophical problem: distinguishing genuine inferences from cognitions and verbal
expressions which are not properly inferential.

In the classical Indian texts, this problem of classifying cognitions or utterances as either
inferences or non-inferences takes the form of separating putative inferential reasons into two
groups: those which genuinely are inferential reasons (hetu), and those which, while resembling
genuine reasons in some respects, are in fact only pseudo-reasons (hetvābhāsa). Here, we can
pose three distinct questions:

1. What are the conditions under which a given property (i.e., a putative inferential reason)
is in fact a genuine reason?

2. What makes it the case that a given property satisfies these conditions (and is therefore a
genuine reason)?

3. How do we know that a given property satisfies the conditions?
Already in Dharmakīrti, the Buddhist epistemologists have a variety of conceptual resources with which to answer these questions, which resources are significantly reconfigured by Dharmottara. Dharmakīrti refers to all of these resources (albeit obliquely) in the opening verse of his *Pramāṇavārttika*:

The inferential reason $H$, which is a property of the locus $P$, and which is pervaded by another property of $P$ [i.e., by the target property $S$], is of exactly three kinds, because of the requirement for not existing apart from $[S$, on the part of $H]$. All [putative reasons] other than these [three kinds] are merely pseudo-reasons.⁶

Here, Dharmakīrti begins by mentioning the two basic requirements for an inferential reason: $H$’s being a property of $P$ (*pakṣadharmatā*), and the pervasion (*vyāpti*) of $H$ by $S$. The former requirement is fairly straightforward, while the latter is where most of the significant work is done.

Pervasion (*vyāpti*) is a term of art which is ubiquitous in classical Indian philosophy, and whose use extends far beyond inferential theory. Pervasion is a one-way relation between two multiply-instantiated properties $A$ and $B$, where $A$ pervades $B$ only if every locus of $B$ is also a locus of $A$. Because this is a one-way relation, it does not exclude the possibility of additional $A$-loci which are not $B$-loci. In our model inference, the pervasion relation obtains between fire and smoke: fire pervades smoke, since wherever smoke is found, fire is also found, although there may be instances of smokeless fires.

In the inferential context, the Buddhist epistemologists analyse the requirement for pervasion into two distinct conditions on the reason property: positive concomitance (*anvaya*), or the presence of $H$ in at least some part of $SP$, and negative concomitance (*vyatireka*), the absence of $H$ in $VP$. Three requirements—being a property of $P$, positive concomitance, and negative

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⁶PV 1.1: *pakṣadharmas tadāṃśena vyāpto hetus tridhaiva saḥ | avinābhāvaniyamād dhetvabhāsās tato ’pare ||*
concomitance—are collectively known as the triple conditions (trairūpya) of the reason-property. To be a genuine inferential reason on this account just is to satisfy these three requirements.

Dharmakīrti formulates the triple conditions in the following way:

**T₁ (Being a Property of P)** The presence only of H in P. (*anumeye [liṅgasya] sattvam eva.*)

**T₂ (Positive Concomitance)** The presence of H in SP only. (*sapakṣa eva sattvam.*)

**T₃ (Negative Concomitance)** The non-presence only of H in VP. (*asapakṣa asattvam eva.*)

Dharmakīrti then explains that we are able to infer (i.e., to have an inference-for-oneself) if we are certain (*niścitam*) that all three conditions are satisfied.⁷

The admittedly clumsy use of “only” is intended to capture the placement of the Sanskrit restrictive particle *eva* in each of the three formulae. In section 5 below, we will see how Dhammadāra and his successors carefully analyse each term in the statements of the three conditions. For now, it is enough to note that the triple conditions provide the Buddhists’ answer to the first of our three questions. A given property is an inferential reason if and only if it satisfies all three of the triple conditions.

Considering the conditions informally, the stock example satisfies them in the following way. T₁, the requirement for H’s being a property of P, is fulfilled by smoke (H) being located on the mountain (P) which is the locus of our inference. T₂, the requirement for positive concomitance, is fulfilled by smoke (H) being present in at some things which are known to be fiery (SP), such as the kitchen hearth. The fact that some things possess fire without also possessing smoke (for example, red-hot bars of iron and campfires built from extremely dry fuel) does not prevent T₂ from being satisfied. T₃, the requirement for negative concomitance, is fulfilled when there smoke (H) is found in anything which is not fiery (VP), such as a large body of water.

⁷NB II.5.
In his commentary on Dharmakīrti’s statement of the three conditions, Dharmottara makes a subtle but important change in phrasing. He takes the adjective “certain” (niścitam), which in Dharmakīrti’s text appears once, following the entire list, and includes it three times, once within each of the conditions. Thus, Dharmottara’s statements of the triple conditions are:

**T₁ (Being a Property of P)** The certain presence only of H in P. *(anumeye [liṅgasya] sattvam eva niścitam.)*

**T₂ (Positive Concomitance)** The certain presence of H in SP only. *(sapakṣa eva sattvam niścitam.)*

**T₃ (Negative Concomitance)** The certain non-presence only of H in VP. *(asapakṣa asattvam eva niścitam.)*

This small change in phrasing amounts to a significant shift in meaning. As presented by Dharmakīrti, the three conditions themselves were objective, mind-independent facts about the world: the reason property either is or is not present in various loci. It is simply in virtue of these objective facts that a given property is a genuine reason, and this leaves open the separate question of whether or not a particular cogniser is aware of that property’s being an inferential reason. As transformed by Dharmottara, however, the three conditions are facts about the epistemic state of a particular cognising agent: in order for each condition to be satisfied, that cogniser must be certain that the reason property is or is not present in the various loci. This reflects a more general tendency in the later Buddhists toward a more solipsistic, individually constructed account of reality. The altered formulations will also be necessary in order to make Dharmottara’s tight connection between the triple conditions and the pseudo-reasons, as we will see in section 5.2 below.

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⁸NBṬ 56–57.
We have, then, an answer to the first of the three questions, from page 48 above. All of the Buddhist epistemologists, from Dharmakīrti through Dharmottara and his successors, agree that some version of the triple conditions—being a property of the locus, positive concomitance, and negative concomitance—are the conditions under which any given property is a genuine inferential reason.

3 Three Types of Reasons

Turning to our second question, in PV 1.1, translated above, Dharmakīrti invokes a “requirement for not existing apart (from S),” referred to elsewhere as an essential connection (svabhāvaprati-bandha) between H and S, which makes it the case that S may be properly inferred from H. There are exactly three forms that this essential connection may take—production from X (tadutpatti), identity with X (tādātmya), and epistemically relevant non-apprehension (anupalambha)—which correspond with the three kinds of inferential reason—causal-product reasons, identity reasons, and non-apprehension reasons—mentioned in PV 1.1.

3.1 Causal-Product Reasons (Kāryahetu)

The first type of inferential reason is the causal-product reason (kāryahetu), or reason which is produced by S. This is exemplified in our stock inference of fire from smoke. Here, because smoke and fire stand in the relation of effect and cause, the presence of smoke (the effect) is sufficient for inferring the presence of fire (the cause). Given the Buddhist epistemologists’ basic premise, that to exist just is to stand in causal relations, and its corollary, that to exist as a certain kind of thing just is to stand in particular kinds of causal relations, it is readily apparent why a causal relationship is able to satisfy the requirement for an invariable essential connection between H and S. In our stock example, given the causal relations which are constitutive of smoke, it is
impossible for anything not produced by fire to be smoke, and so smoke is an invariable sign of fire.⁹

Mokṣākaragupta distinguishes three sub-types of kāryahetu. The first is the simple case already mentioned, where H is straightforwardly the causal product of S. The second is exemplified by the inference of the existence of the visual organ (S) from the occasional arising of visual cognitions (H).¹⁰ Here, we infer that there must be some unique cause of visual cognitions, to account for such cognitions’ non-arising in cases where all of the other usual conditions—proper lighting, the presence of objects which possess form and color, even eyeballs and a person who is awake, etc.—are present, but visual cognition does not arise, such as for a blind person. If there were no such additional cause, then the identity of causal factors between the case of the blind man and the case of the normally-sighted person would demand an identity of effect, namely the arising of a visual cognition in both cases.

For the third sub-type of kāryahetu, Mokṣākaragupta gives the cryptic example of an inference of color (S) from taste (H).¹¹ Here, in regard to a particular piece of citrus fruit (P, which are presumably unable to see), we infer from its specific sweet taste that it has the particular orange hue which corresponds to that degree of ripeness. If the taste had been more bitter, we would know instead that its color was more green, etc. The Buddhist’s account of this sort of kāryahetu as being a case of causal connection relies on specific details of his account of causality, and indeed, on the postulation of the theory of momentariness as well. In somewhat simplistic terms, we can consider a complete collection of causal factors, of which one factor is primarily

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⁹This claim becomes more plausible given the theory of other-exclusion, by which universals like smoke and fire are not objective, mind-independent features of the world (as the Naiyāyikas take them to be), but rather are conceptually constructed in cognition. If the concept (in Buddhist parlance, the vertical universal) “smoke” is in fact formed by the excluding of all those things (strictly speaking, those horizontal universals) which are not the causal product of fire, then an invariable connection with fire is trivially built into the concept of smoke. “Smoke that is caused by fire” is redundant, and “smoke uncaused by fire” is self-contradictory. For vertical and horizontal universals, cf. footnote 22 on page 54.

¹⁰MTBh 28.4–5.

¹¹MTBh 28.5ff.
responsible for the taste of the ripe fruit, and another factor is primarily responsible for its color, but where each of these factors, along with many others, is also considered to be a co-operating cause (sahakārī) all the other features of the entire fruit. Specifically, the color at t₁ is the primary cause of the color at t₂, but also a co-operating cause of the taste at t₂, while the taste at t₁ is the primary cause of the taste at t₂, and also a co-operating cause of the color at t₂. The inferential awareness moves from one effect, via one of its (co-operating) causes, to another effect of that very same cause.

To summarize, in the first case, the inference moves between tokens, from a particular instance of the effect (such as smoke) to a particular instance of the cause (such as fire), following an already well-known pervasion relation between types (between fire in general and smoke in general). In the second case, the inference allows us to infer a new, previously unknown pervasion relation, in the form of a general causal pattern (i.e., to discover a previously unknown type of reason).¹² And in the third case, we infer one effect-token from another effect-token, via their shared causes, moving as in the first case via an already well-known pattern of pervasion.

### 3.2 Identity Reasons (Svabhāvahetu)

The second class of legitimate inferential reasons are those based on essential identity (svabhāvahetu). Dharmakīrti’s example of an inference which employs such a reason is: “This is a tree, because it is a śimśapā,”¹³ where the śimśapā is a certain species of tree. John Dunne provides a

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¹²Given the Buddhists’ extremely weak account of universals, the first two cases are not so different. What we would consider individual tokens of smoke, fire, cow, and the like, and the Naiyāyikas would consider to be particulars, the Buddhist epistemologists would call a “vertical universal” (ūrdhvasāmānya) which includes all the momentary time-slices of the alleged “individual;” while fire, smoke, or cow in general would be a “horizontal universal” (tiryagsāmānya) which includes all the relevant horizontal universals. (For vertical and horizontal universals, cf. MTBh २२.२६ff and Patil २००९: २१८.) So for the Buddhists, there is no strong ontological distinction between the first two cases of kāryahetu. The second case just makes explicit the possibility of inferring at the highest level of generality, where the antecedently known pervasion is not between specific types of cause and effect, as in “smoke is pervaded by fire,” but rather deals with effects and causes in general: “the arising of a unique type of effect is pervaded by a unique type of cause.”

¹³NB II.16: vrkṣo ‘yam, śimśapātvāt.
paraphrase, “This is a tree, because it is a sugar maple,” which might be a bit more familiar, while illustrating exactly the same phenomenon.¹⁴

Owing to the obvious difficulties in identifying a locus P, a target property S, and a reason property H which are all distinct from each other, this example is reinterpreted by Dharmottara to properly mean, “This is fit to be called ‘tree,’ because it is fit to be called ‘śimśapā’.”¹⁵ On this latter account (which is followed precisely by Mokṣākaragupta), we have the object in front of us (which might indicate by pointing to it) as the inferential locus P, which is antecedently known to possess the reason property “being appropriately called a śimśapā,” and which is inferred to possess the target property “being appropriately called a tree.” Here, we have one locus and two properties, all three of which are different from each other, and so there is a legitimate inference.

The difficulty which remains is that, in inferences with reasons of this kind, the Buddhists lack any direct proof procedure for showing the pervasion between the two properties, and thereby justifying the inference which employs such an identity-reason. This, I take it, is one factor which motivates the indirect proof procedure of ruling out pseudo-reasons, which I discuss in section 5.

3.3 Non-Apprehension Reasons (Anupalabdhihetu)

Finally, there is the inferential reason of epistemically relevant non-apprehension (anupalabdhi), which enables a cogniser to form the cognition that something which would by nature be perceptible is not present, since it is not in fact perceived, despite the presence of all the conditions would otherwise enable his perceiving it. The stock example is: “There is no smoke in this place, because smoke, which is appropriately classified as perceptible, is not perceived.”¹⁶ As the example indicates, this type of inference depends on a distinction between non-perception of what is

¹⁴Dunne 2004: 203.
¹⁵NBṬ 62.23–24 = MTBh 28.18–19: vrksavayavahārayogyo 'yam, śimśapāvavahārayogyatvāt.
¹⁶MTBh 31.10–11: nāsty atra dhūmah, upalabdhihikṣanapraptasyānupalabdheḥ. In what follows, Mokṣākaragupta enumerates fifteen other sub-varieties, all of which fit broadly under this general form.
perceptible (drṣyānupalabdhi) and non-perception which is not perceptible (adṛṣyānupalabdhi). This latter group includes things which by their remoteness in space, time, or their own nature would not be perceptible to us even if they did exist. Non-perception is only a cause of inferential knowledge in the former case.

In the auto-commentary to the first verse of his Pramāṇavārttika, Dharmakīrti explains that identity reasons and causal-product reasons establish an actuality, or positive presence, while non-apprehension provides reason for denying something.¹⁷ But given the foundational principle of Buddhist epistemology, that all successful cognition is directed toward purposeful action for the attaining of a result (arthakriyā), Mokṣākaragupta explains that some positive object must be involved even in the case of non-apprehension. While the logical subject of a negative cognition, such as “there is no fire here” is the absentee or negatum, in this case fire, we act not toward the fire, but toward the positive basis which underlies the absence of fire. We might, for instance, walk freely across a spot of ground, because we cognize that there is no fire there which would, if present, impede our path.

At work behind all of this is a distinction which originates in the Sanskrit grammarians between two kinds of negation: non-implicative, or simple, negation (prasajya-pratiṣedha), and implicative negation (paryudāsa-pratiṣedha). Simple negation amounts to a mere denial: “it is not the case that property P applies to x.”¹⁸ Implicative negation, by contrast, includes a positive assertion component: “it is the case that non-P (or, something other than P) applies to x.” Mokṣākaragupta tells us that epistemically relevant non-apprehension (anupalabdhi) is of this latter, implicative, type, which accounts for its leading to fruitful action in regard to its positive basis.¹⁹

¹⁷ PVSV 2.19.
¹⁸ Kajiyama, in his translation of MTBh, refers to this as “propositional negation.”
¹⁹ Kellner (2001: 500–502) provides a very helpful discussion of these two kinds of negation, and their relation to the two senses of the verb upalabh, as these concepts appear in Dharmakīrti’s Hetubindu.
3.4 The Import and Limits of this Account

Dharmakīrti takes this list of three types of reasons to answer both our second and third questions. That is, it is because a given property H is an identity-reason, say, that H satisfies the triple conditions, and it is by realising that H is an identity-reason that we can know that the conditions are satisfied. The later Indian Buddhists, however, appeal to Dharmakīrti’s three types of reasons only in answering the second question, and not the third.²⁰ Passing reference is made to H’s being, say, an identity-reason, but only insofar as this explains why the conditions are satisfied, and only, it would seem, because for these later philosophers to ignore the classification of reasons altogether would be to break too radically with the father of their tradition. To answer the third question, of how we can know that the triple conditions are satisfied, Dharmottara and his successors will appeal to the pseudo-reasons, to which I turn in the next section.

4 Pseudo-Reasons

In PV 1.1, Dharmakīrti also mentions the last of the conceptual resources available for the Buddhist account of inference: the notion of a pseudo-reason (hetvābhāsa). Having explained that there are exactly three kinds of (genuine) inferential reason, Dharmakīrti concludes the verse by defining that “all those things which are not a (genuine) reason (hetu) are pseudo-reasons.”²¹

We should observe immediately that the gloss of hetvābhāsa as “fallacy” by many translators of Indian epistemological and logical texts is simply wrong, and the locution “valid reason” (for hetu) is redundant. As to the latter, either a property satisfies the triple conditions, and so is a reason full stop, or it does not satisfy the triple conditions, and so is not a reason at all, but only the semblance of one (a pseudo-reason, hetvābhāsa), in just the way fool’s gold, though it

²⁰The change in approach is likely motivated, at least in part, by the difficulty of demonstrating that a given reason is an identity-reason; that is, of showing the relation of “essential identity.” Testing for a causal relation, for these thinkers, is a much easier task.

²¹PV 1.1d.
has the semblance of gold, isn’t gold at all. Just as there are not two kinds of gold, real gold and fool’s gold, so too, there are not two kinds of reasons. And for the former claim, the problem with the hetvābhāsas lies with not in the number of parts presented in the statement of the (alleged) inference, nor with the arrangement of those parts. Indeed, a pseudo-inference, like a real inference, presents two properties, H and S, and a property-possessor P, and claims that both S and H belong to P, on account of an alleged relation of pervasion between H and S. Rather, the problem is that the putative reason property is defective in ways which are not expressed in the statement of an inference. And so a hetvābhāsa, which from the limited formal perspective of the inferential utterance seems to resemble a genuine reason in every way, but which nevertheless, when considered from a less superficial perspective which moves beyond statement structure, lacks one or more of the required conditions, is properly understood with the literal translation “semblance of a reason,” or “pseudo-reason.”

While Dharmakīrti enumerates the pseudo-reasons, they seem to have only a peripheral place in his system. Since they earn only the most cursory mention in the Pramāṇavārttika and its auto-commentary, they seem to be relegated to “epistemic leftovers.” Moreover, apart from a single mention (in the summary verse, PV 1.1, quoted above), Dharmakīrti does not discuss the pseudo-reasons in the chapters of PV, PVin, and NB on inference-for-oneself. They are discussed only in the chapters of those works on inference-for-others, strongly suggesting that for Dharmakīrti, the pseudo-reasons are relevant to debate and public discourse, but not to the epistemic process of inference-for-oneself, which alone is inference properly so called.

In this section, I will offer an exposition of the pseudo-reasons based on the third chapter of Dharmakīrti’s Nyāyabindu (NB III), together with Dharmottara’s commentary on that chapter, which extends Dharmakīrti’s classification by making a variety of additional distinctions. In section 5, I will show how Dharmottara applies his new account of the pseudo-reasons to the topic of inference for oneself in NBṬ II, where he is radically innovative.
In the chapter of the *Nyāyabindu* on inference-for-others, Dharmakīrti provides his most extensive typology of the pseudo-reasons. He begins by reminding his reader of the definition of inference-for-others which opened the chapter, namely, that “the statement of a reason having the triple conditions is an inference for others;”²² but “when one of the three conditions is not stated, there is a (mere) pseudo-reason.”²³ The necessary defect with regard to the triple conditions can be of either of two kinds: doubt (*sandeha*) or counterestablishment (*asiddhi*). The former is self-explanatory: the cogniser is simply unsure whether or not one of the three conditions obtains. The latter defect, counterestablishment, is in a certain sense stronger. Here, the cogniser has the certainty that the contrary of a particular condition does obtain.

Here, I understand the negative prefix *a*- to function differently in the terms *asiddhi* and *a-siddha*. The former is the noun which I translate in this context as ‘counterestablishment,’ and which I take to be synonymous with *viparyayasiddhi*, ‘the establishment of the contrary,’ in HB 3.81. When there is *asiddhi*, it is not merely the case that one has not established with certainty that T₁, say, obtains for a given putative inferential reason, but that one *has* established with certainty that the contrary of T₁ obtains for that putative reason. In the language of Sanskrit grammatical analysis, the negative prefix in *asiddhi* is an implicative negation (*paryudāsapratīṣṭha*), and so the term means “the establishment of what is other than X.” In the adjective *asiddha*, which names the first kind of pseudo-reason, “non-established” (which I abbreviate as H₁ in what follows), the negative prefix is a non-implicative negation (*prasajyaprātiṣedha*), as Dharmakīrti makes clear by allowing two subtypes of H₁: “When there is doubt or counterestablishment of one triple-condition, namely the relation (of the putative reason ‘H’) to the inferential locus P, there is the pseudo-reason called ‘unestablished.’”²⁴

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²²NB III.1: *trirūpāngkhyānam parārtham anumānam.*
²³NB III.55: *trirūpāngkhyānam parārthānumānam ity uktam. tatra trayāṇām rūpāṇāṁ ekasyāpi rūpasyānuktau sādhanābhasāḥ.*
²⁴NB III.57: *ekasya rūpasya dharmisambandhāsyāsiddhau sandehe vā asiddho hetvābhāsāḥ.*
as something distinct from doubt be a certainty of some kind, specifically, certainty of the contrary.²⁵

Though this distinction between the doubting and counterestablishment varieties of pseudo-reason is well attested by Dharmakīrti and Dharmottara in the NB and NBT, it has hitherto been neglected even in those few studies of Buddhist inferential theory which mention the pseudo-reasons at all. But by correctly understanding these uses of \textit{asiddhi} in the strong implicative sense of “counterestablishment,” and explicitly contrasting counterestablishment from doubt, we have a quite helpful and valuable paradigm for classifying the pseudo-reasons. Accordingly, as I label the various subtypes of pseudo-reasons, I will mark those varieties whose defect involves doubt with a star, while those which involve only counterestablishment will be unstared. My motive for this initially awkward notation is that, while the Naiyāyikas will have close analogues of all the Buddhists’ unstared types of pseudo-reason, they will for good reason not admit any of the starred varieties.

Briefly, then, when there is either doubt about \( T_1 \) or the counterestablishment of \( T_1 \), there is the pseudo-reason called “unestablished” (\textit{asiddha}, H1). When there is counterestablishment of both \( T_2 \) and \( T_3 \), such that the putative reason is actually a good inferential reason for establishing \( \neg S \) (the contrary of the intended target property \( S \)), there is the pseudo-reason called “opposed” (\textit{viruddha}, H2). And when there is some other combination of doubt and/or counterestablishment of \( T_2 \) and/or \( T_3 \), such that the putative reason allows us to conclude neither \( S \) nor \( \neg S \), there is the pseudo-reason known as “inconclusive” (\textit{anaikāntika}, H3). I will examine each of these three kind of pseudo-reasons in further detail below, together with the elaboration, examples, and further subdivisions of Dharmottara and Mokṣākaragupta.²⁶

²⁵For my discussion of the two kinds of negation, with references, see section 3.3 above. ²⁶In the vast majority of cases, Mokṣākaragupta takes his examples of each pseudo-reason directly from Dharmottara, with a closely connected discussion. So when I discuss the views of “the Buddhist epistemologists,” etc., in my presentation of the pseudo-reasons in sections 4.1–4.3, I mean the theory of Dharmottara, which is presented in textbook form by Mokṣākaragupta.
4.1 Unestablished Pseudo-Reasons (H1)

The Buddhist epistemologists divide the first type of pseudo-reason, “unestablished” (H1), along two broad axes: first, whether the defect in the purported reason is one of counterestablishment or doubt, and second, whether the defect relates more directly to the inferential locus P or to the putative reason property itself.

Among the counterestablishment cases of H1, we may first consider the most basic case, of pseudo-reasons which are unestablished in their own form (svarūpāsiddha). This is the subtype which Dharmottara, following Dharmakīrti, addresses first, but for consistency in notation with Patil (2009: 64ff), I will label it as H1b. The stock example of a defective inference of this type is:

Sound is eternal, because of being perceptible by the eye.²⁷

Here, the problem is that the alleged reason-property, being perceptible by the eye, does not belong to the inferential locus P, sound. This is a real property, in the sense that there are things which everyone agrees are visible, but it is not a property of P, and so it is not a reason to conclude that P possesses S, eternality. Dharmottara also discusses two additional cases of H1b. Whereas in the original example, both parties to the debate—both the proponent who stated the inference, and who already accepts that conclusion that P possesses S, and his opponent who, by hearing the statement of the inference should come to infer for himself that P possesses S—agree that being visible is not a property of sound, in the supplemental cases, one party to the debate accepts that the alleged reason is a property of P, while the other party does not.²⁸ So for a putative reason to be unestablished in its own form (H1b), it is sufficient for either party in the debate to have definitively concluded that H does not belong to P.

²⁷NBṬ ad NB III.58. Cf. MTBh 24.15–16, where the editor breaks the sandhi to print “yathā anityaś...” (against the reading nityaś, following NBṬ, in other editions of Mokṣākara-gupta), and also MTBh 51.13–14.
²⁸NB III.59–60. The details of the two cases turn on the presuppositions in metaphysics of various Indian philosophical schools, which need not detain us here.
The other counterestablishment case involves pseudo-reasons whose locus (P) is unestablished (āśrayāsiddha, H1a). Dharmottara and Mokṣākaragupta give the example of the pseudo-inference, uttered by a Naiyāyika to a Buddhist, that

The soul is omnipresent, because of its qualities being perceived everywhere.²⁹

Here, the inferential locus P is the soul; the alleged reason property H is having qualities which are perceived everywhere; and the target property S is omnipresence. The problem here is that the Buddhist does not acknowledge the very existence of P, and so H cannot possibly be located there.³⁰ This variety of pseudo-reason, which Buddhists and Naiyāyikas accept, provides a purely formal difficulty for any attempt to infer the existence of something. The problem is not that existence is not a predicate (indeed, by Indian standards, existence is a perfectly acceptable property), but that the locus P of the inference cannot be the very thing whose existence is in doubt.

The other pair of H1 cases are those where the putative reason is unestablished due to doubt (sandigdhāsiddha). Dharmottara illustrates the first case, where there is doubt about H itself (H1b*), with a situation in which there really is smoke, but the cogniser has doubt about the possibility of what is really smoke’s actually being steam, and so he is unable to infer fire.³¹ The second case, H1a*, where there is doubt about the reason’s being supported by (or, belonging to) P, is exemplified by the inference

In this garden, there is a peacock, because of the sound of a peacock.³²

²⁹NB III.65, MTBh 50.1–3. Dharmottara’s commentary makes clear that the reason-property sarvatropalambhyamānatva is to be understood as stating something about the qualities—pleasure, pain, desire, aversion, and the like—which belong to (or, are possessed by) the soul, and not, as Kajiyama (1998:119) translates Mokṣākaragupta’s mention of the same inference, “The soul is ubiquitous, because it has the quality to be perceived everywhere.”

³⁰From the Nyāya side, Keśavamiśra gives the less controversial example “The sky-lotus is fragrant, because of being a lotus, like the lotus which is born in a pond” (KTBh 103.8: gaganāravindam surabhi aravindavat, sarojāravindavat.*) Here, everyone agrees that the sky-lotus, a plant which lives in the sky, does not exist, and so the inference is a bad one, due to its nonexistent locus.

³¹NB III.62.

³²NB III.63–64: iha nikuñje mayūraḥ, kekāyitād.
Here, there is doubt about whether the sound properly belongs to this particular garden, or whether it is in fact properly located in the neighbor’s garden, and so the cogniser is unable to infer the presence of the bird in either place.

**4.2 Opposed Pseudo-Reasons (H2)**

Dharmakīrti explains that the pseudo-reason known as “opposed” (viruddha, H2) obtains wherever there the counterestablishment of both T2 and T3.³³ In such cases, the pseudo-reason is not present in any part of SP (thus violating T2), but it is present in VP (thus violating T3). Instead of being reasons to infer the desired target property S, such properties are in fact reasons for its contrary, ~S. Examples include

This pot is eternal, because of being a product.³⁴

and

This pot is eternal, because of following immediately upon human effort.³⁵

Both putative reason properties are in fact to be found only in the dissimilarity class VP of non-eternal things, but never in the similarity class SP of eternal things.

**4.3 Inconclusive Pseudo-Reasons (H3)**

For the third type of pseudo-reason, “inconclusive” (anaikāntika), Dharmottara and Mokṣākara-gupta present a bewilding array of permutations. (Table 3.1 may be helpful for keeping track of the different subtypes.) First, however, Dharmottara offers a general definition:

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³³NB III.81.

³⁴Cf. NBṬ ad NB III.83.

³⁵Cf. NBṬ ad NB III.83. Dharmottara justifies giving two examples, since the former is an essential-identity reason (svabhāvahetu), while the latter is a causal-product reason (kāryahetu).
That from which there is certainty about [concluding] neither $S$ nor $\neg S$, but which instead is circular, is a doubtful reason. And a [putative] reason which is doubtful between these two [$S$ and $\neg S$] is called inconclusive.³⁶

From this definition, we learn that the basic feature, shared by all the subtypes of $H_3$, is that where $H_2$ definitively establishes $\neg S$, $H_3$ is inconclusive, establishing neither $S$ nor $\neg S$.³⁷ That is, $H_2$ is known to be a pervader of $\neg S$, while $H_3$ is known to be a pervader of neither $S$ nor $\neg S$. As Mokṣākaragupta explains, “When its pervasion is not certain, a [putative] reason has the fault ’inconclusive.’”³⁸

As with $H_1$, $H_3$ pseudo-reasons can be meaningfully subdivided according to whether their primary defect is counterestablishment or doubt. Cases involving counterestablishment of one triple condition together with doubt about another triple condition are best understood under the latter heading, as I will explain below.

The first subtype of inconclusive reason is known as “inconclusive due to being common” ($sādhāranānaikāntika$, $H_3a$), which occurs due to the counterestablishment of $T_3$. Dharmottara offers four examples of various permutations of $H_3a$:

1. “Sound is non-eternal, because of being an object of knowledge, like a pot, and unlike ether.”³⁹ In this case, the putative reason, being an object of knowledge, is a pervader of both $SP$ (eternal things) and $VP$ (non-eternal things), since indeed, everything which exists is an object of knowledge; i.e., something which is knowable.

³⁶NBT 114.20–21, ad NB III.66: yasmān na sādhyasya na viparyayasya niścayāḥ, api tu tadviparītaḥ samśayāḥ | sādhyetarayoḥ samśayathur anaikāntika uktāḥ.

³⁷This also makes clear that any property is not an inferential reason or pseudo-reason absolutely, in some abstract way, but only with regard to some particular target property $S$. $H_2$ is a genuine reason in an inference for $\neg S$, but a mere pseudo-reason for $S$.

³⁸MTbh 47.19: vyāpyaniścaye hetor anaikāntiko doṣaḥ.

³⁹NBT 114.28–29: anityāḥ sabdāḥ, prameyatvāt, ghaṭavat ākāśavat. This is the only one of Dharmottara’s four examples which Dharmakīrti himself gives, in NB III.67.
<table>
<thead>
<tr>
<th>The (putative) reason is...</th>
<th>...a pervader of VP (T3 counterestablished)</th>
<th>...merely present in VP (T3 counterestablished)</th>
<th>...absent from VP (T3 satisfied)</th>
<th>...doubtful in VP (T3 doubtful)</th>
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<tr>
<td>...a pervader of SP (T2 satisfied)</td>
<td>H₃a (#1)</td>
<td>H₃a (#3)</td>
<td>Genuine Reason</td>
<td>H₃a*V</td>
</tr>
<tr>
<td>...merely present in SP (T2 satisfied)</td>
<td>H₃a (#2)</td>
<td>H₃a (#4)</td>
<td>Genuine Reason</td>
<td>H₃a*V</td>
</tr>
<tr>
<td>...absent from SP (T2 counterestablished)</td>
<td>H₂</td>
<td>H₂</td>
<td>H₃b</td>
<td>H₃b*</td>
</tr>
<tr>
<td>...doubtful in SP (T2 doubtful)</td>
<td>H₃a*A</td>
<td>H₃a*A</td>
<td>H₃b*</td>
<td>H₃b*</td>
</tr>
</tbody>
</table>

Table 3.1: Triple Conditions and Pseudo-Reasons by Similarity and Dissimilarity Classes
2. “Sound does not follow directly upon (human) effort, because of its being non-eternal, like lightning and ether, and unlike a pot.”⁴⁰ Here, the putative reason “non-eternity” exists in only part of the SP, and in all of the VP.

3. “Sound follows directly upon effort, because of being non-eternal, like a pot, and unlike lightning and ether.”⁴¹ SP and VP are reversed from the second case, so the alleged reason pervades the SP, while existing in part of the VP. This case, together with case #4, is sometimes known by the special name “inconclusive due to presence in one portion of the VP” (vipakṣaikadeśavṛti).⁴²

4. “Sound is eternal, because of being incorporeal, like ether and an atomic particle, and unlike motion and a pot.”⁴³ Here, the pseudo-reason is present in part of both SP and VP (ether and motion, respectively) and absent from another part of both SP and VP (an atom and a pot).

In all four cases, the H3a pseudo-reason is a property of P whose non-existence in VP is counter-established.

The other subtype, where T2, the presence of the reason in SP, is counterestablished, is known as “inconclusive due to being uncommon” (asādhāraṇānaikāntika, H3b). An example of such a pseudo-inference is

Sound is non-eternal, because of being audible, like a pot [and unlike ether].⁴⁴

⁴⁰NBT 114.30: aprayatnānantarīyakaḥ śabdaḥ, anityatvād vidyudākāśavad, ghaṭavat.
⁴¹NBT 115.17: anityatvāt prayatnānantarīyakaḥ śabdaḥ, ghaṭavat, vidyudākāśavac ca.
⁴²Cf. NBT 115.18 and MT Bh 26.4–8, where this same example is discussed.
⁴³NBT 115.20: nityaḥ śabdaḥ, amūrtatvād, ākāśaparamāṇuvat, karmaghaṭavac ca.
⁴⁴MT Bh 25.5–6: anityaś śabdaḥ śrāvaṇatvāt ghaṭavat.
The difficulty is that the property of being audible is to be found neither in non-eternal things like pots (the SP) nor in eternal things like the ether (the VP), and so this pseudo-reason is incapable of demonstrating either S or ~S.⁴⁵

Related to H₃a are two distinct doubting cases: doubtful anvaya (sandigdhānvaya), in which T₂ is doubted and T₃ counterestablished, and “doubtful exclusion from VP” (sandigdhavipakṣavyāvṛtti), in which T₃ is doubted while T₂ is satisfied.⁴⁶ For the former, Dharmottara gives the examples

This fellow is omniscient, because of being a speaker⁴⁷

and

This fellow has conquered all desires, because of being a speaker.⁴⁸

Here, H (being a speaker) is known to exist in the VP of non-omniscient people, but its is unclear whether or not other omniscient people (the SP) are speakers or not. Indeed, most of us have no experience with any such people, on which basis we could make a determination one way or the other. Pseudo-reasons of this kind take their name from the doubt about T₂, rather than the violation of T₃, since it is this doubt which serves to make the holding of any pervasion relation unclear. That is, given that the cogniser knows that the pseudo-reason is found in VP, if the putative reason were to be absent from SP, then there would be pervasion, but of the wrong sort, and so the putative reason would be opposed (H₂); whereas if the putative reason were to be established in at least some part of SP, then the cogniser would know definitively that no

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⁴⁵This is actually Mokṣākaragupta’s second example of asādhāraṇānaikāntika. His first case, taken from NB III.99–107 and NBṬ thereon, involves twofold doubt about the reason, and is addressed below as H₃b⁴.

⁴⁶I mark these two cases as H₃a*A and H₃a*V, respectively, in table 3.1. Reasons which are inconclusive due to doubt about T₂ and/or T₃ illustrate most clearly the artificiality of my abbreviated labels for the pseudo-reasons, with their sharp divisions between the types. Dharmottara and Mokṣākaragupta both mention two types of doubting H₃ by name: “doubtful anvaya” (sandigdhānvaya), where T₂ alone is doubted, and “doubtful exclusion from the VP” (sandigdhavipakṣavyāvṛtti), where T₃ alone is doubted.

⁴⁷NBṬ ad NB III.94

⁴⁸NBṬ ad NB III.94
relevant pervasion relation (whether by S or ~S) obtains, and so the pseudo-reason is inconclusive by counterestablishment (H₃a, without the star).⁴⁹ Table 3.1 may help to make this clear visually.⁵⁰ Similarly with reasons which are unestablished due to doubtful exclusion from the dissimilarity class VP, H₃a*V. The examples are

This fellow is non-omniscient, because of being a speaker.⁵¹ and

This fellow has desires, because of his being a speaker.⁵²

Just as in the related examples of H₃a*A, doubt about T₂ made the difference between no pervasion and the wrong pervasion, in these cases, where SP and VP have been reversed, doubt about T₃ makes the different between no pervasion (H₃a) and inference-warranting pervasion of H by S.

The final variety of unestablished pseudo-reason is the case of an uncommon pseudo-reason which involves doubt (H₃b*). Both Dharmottara and Mokṣākaragupta discuss at some length the example

(This/A) living body has a soul, because of having breath and the like.⁵³

Mokṣākaragupta goes on, perhaps mistakenly, to provide examples of similar and dissimilar cases, “like another living body, and unlike a pot.” Here, the problem is that it is unclear what, if anything, belongs in SP and VP. Because of the highly dubious nature of any claims about things

⁴⁹Recall Mokṣākaragupta’s general definition of H₃ as a putative reason in regard to which pervasion is uncertain.
⁵⁰While Mokṣākaragupta makes the claim, at MTBh 47.19, that H₃ is of only three kinds (namely the common, uncommon, and doubtful exclusion from VP), he does discuss the fourth case of doubtful anvaya at MTBh 25.18–20, where he gets Dharmottara’s example wrong, by mistakenly providing the closely related example of H₃a*V. I am not aware of any similar claim by Dharmottara in regard to a precise number of divisions of H₃.
⁵¹cf. NB III.69ff.
⁵²cf. NB III.69ff.
⁵³NBṬ ad NB III.97. Because Sanskrit lacks the indefinite article, the statement is ambiguous between the two readings “this living body,” referring to the particular living body which the speaker might, say, be pointing to, and “a living body,” referring generically to living bodies in general.
having souls, on the Buddhist’s view, there are no members of SP at all! This variety of pseudo-reason is notably disanalogous with all the others we have surveyed, in that in those other cases, the defect is related to the presence or absence of the putative reason in known loci, while here, the problem lies chiefly in the lack of a clear SP itself (and perhaps the lack of any VP as well), which of course entails that a cogniser cannot have any certainty about either the establishment or the counterestablishment of the alleged reason there.

It should be noted that Mokṣākaragupta considers the examples which I have given under H₃b and H₃b* to be version of a single defect, which he terms “inconclusive because of being uncommon” (asādhāraṇaṇaikāntika), without explicit further typology, while Dharmottara, under this head, gives only the example I have classified as H₃b*.

5 Putting the Pseudo-Reasons to Work

Even though he provides a minimal account of the pseudo-reasons, Dharmakīrti does not deploy this theory in defense of genuine inferences, and so he is left to answer our third question from page 48, of how we know that a given property satisfies the triple conditions, by appeal to his three types of legitimate reasons; that is, by asserting (or ideally, demonstrating) that the putative reason in a given inference is, say, a svabhāvahetu. Dharmakīrti classifies the pseudo-reasons, but they play no major role in his system. Given the truly disproportionate, indeed immense, volume of scholarship which has been done on Dharmakīrti compared to most other classical Indian philosophers, this trivial place for the pseudo-reasons in Dharmakīrti is doubtless one reason why they have been, quite wrongly, ignored in the secondary scholarship on later Buddhist, and non-Buddhist, epistemology. This scholarly neglect notwithstanding, beginning with Dharmottara, the pseudo-reasons play an increasingly vital role in Indian theories of inference. By the time of Ratnakīrti and Mokṣākaragupta several centuries after Dharmottara, our third question, “How do we know that a given property satisfies the triple conditions, thereby making it a genuine
inferential reason?” is answered not by classifying its reason (as it was in Dharmakīrti), but by demonstrating that it is not any of the three sorts of pseudo-reason. It is this major shift which constitutes Dharmottara’s most significant transformation of Dharmakīrti’s theory of inference. I will illustrate this new method with examples from Mokṣākaragupta and Ratnakīrti, before going on to consider its justification.

5.1 Arguing from the Absence of Pseudo-Reasons

As one arbitrary example of the method, we might consider Mokṣākaragupta’s inference for the existence of an omniscient person; that is, someone who has direct perceptual awareness of everything in the world, all at once. Having just demonstrated, to his opponent’s satisfaction, the possibility of such a person, Mokṣākaragupta now proceeds to prove that such a person actually exists.

In the first paragraph, Mokṣākaragupta gives a full statement of the inference. He first states the pervasion relation between the complex inferential reason (H) “being in accord with an epistemic instrument and having an object which is certain,” and the target property (S) “being preceded by a perceptual cognition of its object.” He then states that this inferential reason is a property of the inferential locus (P) “the verbal expression ‘all produced things are momentary.’” We are meant to infer that this verbal expression also possess the target property.

After mentioning, in the style of Dharmakīrti, which of the three types of reasons is at work in this inference, Mokṣākaragupta proceeds, in the last paragraph, to systematically rule out each of the three types of pseudo-reason. His entire presentation and indirect justification of the inference, then, is as follows:

A verbal expression which is in accord with an epistemic instrument and whose object is certain, is either directly or indirectly preceded by a perceptual cognition of object of that verbal expression. For example, the verbal expression “fire burns.”
And the verbal expression “All produced things are momentary” is in accord with an epistemic instrument and has an object which is certain. [Therefore the object of this expression, i.e., all produced things, must be known perceptually by someone.]

This is proven by a causal-product reason.

This reason does not have the fault of being unestablished [H1], since there is an inferential proof for the momentariness of all things, and so this verbal utterance has an object with is true. Nor is this reason opposed [H2], since it is found in SP. Nor is it inconclusive [H3], since even though verbal expressions in general may be preceded by doubt or error, verbal utterances which are in accord with a pramāṇa and whose object is certain are observed, by perception and non-apprehension, to be either directly or indirectly preceded by a perceptual cognition of object of that verbal expression. Otherwise, there would be the undesirable consequence of the eradication all of causal-product reasons, due to the undesirable consequence of giving up on any cause, even in the case of smoke and the like.⁵⁴

Here, after stating the inference in its standard form, Mokṣākaragupta makes a quick nod to Dharmakīrti’s method of classifying inferential reasons according to one of the three accepted types, before giving a justification for his inference, which consists solely of showing that the inferential reason is not any of H1, H2, or H3.

On a more grand scale, the complete structure of Ratnakīrti’s treatise on the positive proof of the momentariness of all things (the Kṣaṇabhaṅgasiddhi Anvayātmika) may be summarized as follows:⁵⁵

1. The statement of the inference of momentariness from existence.

⁵⁴MTBh 62.7–16: Other examples include Mokṣākaragupta’s presentation of the Naiyāyikas’ inference for the existence of God at MTBh 39.14–40.5, as well as his own arguments for the possibility of an omniscient person at MTBh 61.4ff and for the refutation of the soul at MTBh 64.9ff.
⁵⁵Cf. Woo 1999, especially the outlines on pp. 126–140.
2. Preliminary arguments that existence, as an inferential reason, is neither H1, nor H2, nor H3.

3. Objections from opponents, arguing in turn that existence as an inferential is H1, H2, and H3.

4. The refutation of each of these objections, to show conclusively that the reason is none of H1, H2, or H3.

The other apparent digressions which occur in the course of the treatise are each included in order to provide the means of demonstrating the absence of one or another of the pseudo-reasons.

5.2 Justifying the Method

This practice of the late Buddhist logicians of argument by appeal to freedom from pseudo-reasons is justified, provided that the following two biconditionals hold:

1. X is a (genuine) inferential reason, iff X is not a pseudo-reason (where X is a property presented as a reason in a putative inference).

2. X is a pseudo-reason, iff X is either H1, H2, or H3.

Provided that the second biconditional really gives an exhaustive list of pseudo-reasons, and provided that a property’s not being a pseudo-reason is in fact sufficient for its satisfying the triple conditions, then we have a good procedure for determining whether any given X is a genuine reason: simply verify that it is not H1, H2, or H3. These provisos do not come for free, as it were, since the pseudo-reasons do not have a one-to-one correspondence with the triple conditions. Nonetheless, I will argue that these Buddhist thinkers are justified in using this procedure.

Since the second biconditional, which defines the pseudo-reasons to be of these and only these three kinds, is merely stipulative, the real justificatory work must be done for the first
biconditional. This second biconditional is, of course, necessary for the late Buddhists’ method, since it ensures that we have a finite, practically countable, list of pseudo-reasons.

The left-to-right direction of the first biconditional (that if $X$ is a genuine reason, then $X$ is not a pseudo-reason) follows from the method of defining the pseudo-reasons in section 4. Since each of the pseudo-reasons is defined to be a failure, whether of doubt or counterestablishment, with respect to at least one of the triple conditions which must be met by a reason, then it is impossible for any (genuine) reason to be a pseudo-reason.

Dharmottara has an argument, which is picked up by Mokṣākaragupta, for the right-to-left direction of the first biconditional. The argument is based in the method of analysing definitions (in this case, the definitions of the triple conditions) by stating what each term in the definition excludes.⁵⁶ What Dharmottara does here is innovative and transformative, and yet has gone unnoticed in studies of Buddhist inference and the triple conditions. Dharmottara takes the pseudo-reasons, which are discussed by Dharmakīrti only in the third chapter of the NB on inference for others, and deploys them in his commentary (the NBT) on the second chapter, the chapter on inference for oneself, over the course of three pages of intricate commentary on what amounts to a single sentence in Dharmakīrti’s text. The pseudo-reasons, which for Dharmakīrti and his predecessors were primarily a tool in debate theory, become for Dharmottara and his successors integral to the account of the genuine cognitive process of inference properly so called. Recalling that inference for others is called inference only derivatively,⁵⁷ we see that the pseudo-reasons have moved from this derivative context to the heart of the primary context: the triple conditions on the reason in inference for oneself.

Dharmottara explains the terms of $T_1$, “the certain presence only of $H$ in $P$,” ($anumeya sattvam eva niścitam$) in the following way:

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⁵⁶ This method of analysing definitions by the exclusions of their terms is widespread across intellectual traditions in classical India. For one instance of its use in Keśava and Udayana, see section 27 of chapter 2.

⁵⁷ Cf. section 1 above.
### Table 3.2: Exclusion of the Pseudo-Reasons by the Terms in the Definitions of the Triple Conditions

<table>
<thead>
<tr>
<th></th>
<th>H₁a</th>
<th>H₁a*</th>
<th>H₁b</th>
<th>H₁b*</th>
<th>H₂</th>
<th>H₃a</th>
<th>H₃a*A</th>
<th>H₃a*V</th>
<th>H₃b/H₃b*</th>
<th>Clarificatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>T₁</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>T₂</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>T₃</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>#1–2</td>
<td>#3–4</td>
</tr>
</tbody>
</table>

Table 3.2: Exclusion of the Pseudo-Reasons by the Terms in the Definitions of the Triple Conditions
In this definition, by the term “presence” (*sattvam*), a nonestablished reason, such as being perceptible by the eye, is excluded.

By the term “only” (*eva*), a reason which is unestablished in one part of P is excluded. For example, “trees are sentient, because they sleep,” where sleep, which means the curling up of their leaves is not established for some trees, which have become the inferential locus P. Indeed, it is not the case that all trees possess the curling up of their leaves at night, but only some trees.

By the placement of word “only” after the word “existence,” an uncommon reason property is excluded. Indeed, if the condition were rephrased “existence in P only” (*anumeya eva sattvam*), then being audible would be a (genuine) reason.

By the word “certain” (*niścitam*), all varieties of unestablished due to doubt are excluded.⁵⁸

So in the statement of T₁, the extensional significance of the first term, *sattvam*, is simply to rule out H₁a and H₁b pseudo-reasons. In an abbreviated form, Dharmottara refers to his own stock example of the latter. The restrictive particle *eva*, meanwhile, serves a clarificatory function, indicating that a property must fully pervade P in order to be a genuine reason, while a property which is merely present in a limited part of P falls is included under H₁b.

The placement of the restrictive particle, determining as it does the domain over which the restriction is to take place, does its own work of excluding H₃b and H₃b* pseudo-reasons from the set of properties which satisfy T₁. (Recall that Dharmottara and Mokṣākara-gupta do not draw a sharp distinction between the counterestablishment and doubting cases of uncommon pseudo-reasons.) By positioning the particle to require that all cases of P have the presence of H only,

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⁵⁸NBṬ 56.22–27: *tatra sattvacanenaśiddhaḥ cākṣusatvādi nirastam | evakāreṇa pañcaśaṅkādesāśiddho nirastah | yathā cetanās taravah svāpād iti paksitṛteṣu taruṣu patrasaṅkocalaṅkasañnah svāpā ekadeṣē na siddhaḥ | na hi sarve vṛkṣā rāṭrau patrasaṅkocabhājāh kintu kecid eva | sattvacanasya pañcaśaṅkerenaivaśaṅkaraṇāsādhibhairuḥ dharma nirastah | yadi hi anumeya eva sattvam iti kuryāt śrāvaṇatvam eva hetuḥ syat | niścitagrahaṇena sandiṣṭhāsādhdhāḥ sarvo nirastaḥ.*
and not the absence of H, it still possible for H to be present in SP as well. But if the particle were instead to limit the presence of H to P alone, then only H3b reasons, which are found in neither SP nor VP, would be acceptable. In his parallel passage, Mokşākaragupta gives “Sound is non-eternal, because of its being audible” as an example of a defective inference which is excluded by the placement of eva—the very same example of an uncommon pseudo-reason which I have labeled as H3b.⁵⁹

Finally, the adjective “certain” (niścitam) excludes the relevant doubting cases, H1a* and H1b*. Mokşākaragupta provides the stock example of H1b*,⁶⁰ though by mentioning “all varieties,” H1a* is understood to be included as well.

Dharmottara gives the term-exclusions for the definition of T2, “the certain presence of H in SP only” (sapakṣa eva sattvaṃ niścitam) in a similar manner:

Here, by understanding the word “existence” (sattvam), an opposed reason is excluded. Indeed, such a reason is not found in SP.

By the word “only” (eva), inconclusive due to being common (is excluded). Indeed, such a pseudo-reason is not present only in SP, but rather, in both SP and VP.

By placing that word “only” before the word “existence,” it is expressed being a (genuine) inferential reason applies even to a property which is not a pervader of SP, such as following immediately upon effort. If it were instead placed before (the word “existence”), the meaning would be: “an inferential reason in that which has existence alone in SP,” and so following immediately upon effort would not be an inferential reason.

⁵⁹MTBh 25.5–6.
⁶⁰MTBh 25.2–4.
By the word “certain,” the doubtful anvaya kind of unestablished reason is excluded. For example, “This fellow is omniscient, because of his being a speaker.” Indeed, being a speaker is doubtful in the SP “omniscient.”

And again, Dharmottara explains T3, “the certain non-presence only of H in VP” (asapakṣa asattvam eva niścitam):

Here, by the word “non-presence,” there is the exclusion of an opposed reason. Indeed, an opposed reason is not in VP.

By the word “only,” there is the exclusion of the inconclusive because of being common reason which is found in one part of the VP. Indeed, when following immediately upon effort is the probandum S, being non-eternal exists in part of the VP, such as lighting and the like, but does not exist in ether and the like. And so, there is the exclusion of this type by means of this rule.

Indeed, if (the word “only”) were to be placed before the word “non-existence,” the meaning of T3 would be: “That which does not exist in VP alone is a (genuine) reason.” And following immediately upon effort exists also in (part of the) SP, so it would not be an inferential reason. Therefore, the word “only” is not placed before “non-existence.”

By the word “certain,” the inconclusive reason whose exclusion from the VP is doubtful is excluded.\textsuperscript{62}

\textsuperscript{61} NBṬ 56.29–57.10: ihāpi sattvagrahaṇena viruddho nirastāḥ | sa hi nāsti sapakṣe | evakāreṇa sādhāraṇaṁ naikāntikāḥ | sa hi na sapakṣa eva vartate kintūbhayatṛāpi | sattvagrahaṇāt pūrvāvadhāraṇavacanena sapakṣyāpyaṇipattākasyāpi pratyānāntariṇiyakasya hetuvaṁ kathitam | paścādavadhāraṇe tv aṁ arthāḥ syāt sapakṣe sattvaṁ eva yasya sa hetu iti pratyānāntariṇi-ya-ka-vaṁ na hetuḥ syāt | niṣcitavacanena sandigdhānvayo ’naikāntiko nirastāḥ yathā sarvaśājñāḥ kaścit vaktṝvāt | vaktṝvāṁ hi sapakṣe sarvajñe sandigdham.

\textsuperscript{62} NBṬ 57.12–18: tatrāsattvagrahaṇena viruddhasya nirāsah | viruddho hi sa vipakṣe ’sti | evakāreṇa sādhāraṇasya vipakṣaikādesa-ā-vṛtter nirāsah | pratyānāntariṇi-ya-katve sādhya hy anityatvaṁ vipakṣaikadeśe vidyuddaṁ asti aśā-dau nāsti | tato niyamenaśya nīrāsah | asattvaśabdāḥ ṛṣi prāparvasmīn avadhāraṇe ’yam arthāḥ syāt vipakṣa eva yo nāsti sa hetuḥ | tathā ca pratyānāntariṇi-ya-katvaṁ sapakṣe ’pi sarvatra nāsti | tato na hetuḥ syāt | tataḥ pūrvaṁ na kṛtaṁ | niṣcitagrahaṇena sandigdhavipakṣavāvruttikā ’naikāntiko nirastāḥ.
In the statements of T2 and T3, the first terms (*sattvam* and *asaśvam*, respectively) serve straightforwardly to exclude H2 pseudo-reasons.

The restrictive participle *eva* in these two definitions rules out H3a pseudo-reasons. In the case of T3, the exclusion is specifically of instances #3–4 from among Dharmottara’s subdivision of H3a, in which the ostensible reason property is present in, but does not pervade, VP.

The placement of the restrictive particle serves a clarificatory purpose in each definition. In the case of T2, the placement of *eva* makes clear that there are two ways that a property can satisfy this condition: by pervading SP, and by being merely present in SP (cf. Table 3.1). So the placement of this particle in the definition serve not so much to exclude something, but to clarify the other terms in such a way as to ensure that both these varieties of genuine reasons are included.

As Dharmottara explains it, the placement of *eva* in T3 also plays a clarifying role. Were the particle to be relocated in the way he describes, it would require that H *pervade* SP, since the non-presence of H would be permitted only in VP and nowhere else. Such a revised positioning of the particle would also replace the stronger requirement of the non-presence of H in any part of VP with the weaker conditions of H’s mere non-pervasion of VP.⁶³

Finally, the term *niścitam*, as in T1, rules out various doubting cases: H3a*A in T2, and H3a*V in T3.

So, when taken together, the terms of the triple conditions exclude all and only the acknowledged varieties of H1, H2, and H3 from being genuine inferential reasons. Reasoning in the other direction, we see that a putative reason is either a known pervader of P (thereby satisfying most of

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⁶³In the parallel passage (MTBh 26.17–20), Mokṣākaragupta seems to have some trouble with this. Where Dharmottara uses the position of *eva* in T3 (particularly the second concern) to clarify the bare meaning of *eva* mentioned immediately before, Mokṣākaragupta reorders the statements, and attempts to state separately what each excludes. He says, however, precisely the same thing in both cases: the term itself excludes H3a*, and its placement excludes H3a*. Mokṣākaragupta is likely motivated by a concern to maintain parallelism with the definitions of T1 and T2, where each of the four elements performed clearly separable work. He alludes to, but fails to fully grasp the import of, the first of Dharmottara’s concerns, regarding pervasion and mere presence in SP.
T₁), or is one of the acknowledged varieties of H₁. We can also see, from table 3.1, that whatever the status of a putative reason with respect to SP and VP, that putative reason is either H₂, an identifiable variety of H₃, or a genuine inferential reason (given that we have already verified its not being H₁). Therefore, the proof procedure of justifying an inference merely by demonstrating that its inferential reason is not one of these finitely many kinds of pseudo-reason is sufficient, as the Buddhist philosophers who argued by this method clearly understood.

6 Conclusion

With regard to the history of Buddhist philosophy in India, we have seen that Dharmottara makes three significant changes to Dharmakīrti’s account of inference: the rephrasing of the triple conditions to make them relative to the cogniser’s certainty (section 2), an expanded classification of the pseudo-reasons (section 4), and most importantly, the novel application of the pseudo-reasons to inference for oneself, which replaces Dharmakīrti’s appeal to the three types of reasons with a defense of inferences via the exclusion of the pseudo-reasons (section 5). This indirect method becomes the favored strategy of the later Indian Buddhists. As a more purely philosophical matter, I have shown that this procedure is in fact a good one.
Chapter 4

Nyāya Accounts of Inference

In this chapter, I will consider two different approaches to inference (anumāna) in the Nyāya tradition. The first is a model based on five conditions on the inferential reason property, and employing an account of related pseudo-reasons—reminiscent in both these ways of the late Buddhist epistemologists. This model is elaborated by such thinkers as Jayanta Bhaṭṭa (9th c.) and Keśava Miśra. In recent years, this model has begun to be fairly well-understood by scholars of Indian philosophy. To the extent that scholars have advanced beyond the superficial under-
standing of “statement, reason, example, application, and conclusion”¹ to a “standard model” of inference employed by Naiyāyikas, it is something very much like this.²

The second approach is that which Udayana himself presents, explicitly as an alternative or a supplement to the former model. Here, I will rely especially on Udayana’s discussion in the third book of the NKA. The passage in question is a dialogue about the correct theory of inference between Udayana and a generic Buddhist opponent. This generic Buddhist opponent is the essentially same as the main opponent in the ĀTV.³ I will supplement Udayana’s text with

¹ Until relatively recently, accounts of “the Nyāya syllogism” have described a five-part statement (strictly, a compound sentence) consisting of statement (pratijñā), reason (hetu), example (upāharaṇa), application (upanaya), and conclusion (nigamana), which is attested in Gautama’s Nyāyasūtras. The stock example for this “syllogism” runs as follows:

1. (Statement:) there is fire on the hill,
2. (Reason:) because there is smoke,
3. (Example:) as in the kitchen;
4. (Application:) this is such a case,
5. (Conclusion:) therefore, there is fire on the hill.

This pattern of inductive reason represents only the earliest stratum of Naiyāyikas’ theorising about inferential reasoning, prior to the more formal treatments which I will discuss in this chapter. For understanding the history of various Indian theories of inference, it would seem that the progression is as follows:

1. First, the old-fashioned inductive syllogism, described above, from Gautama’s NS and elsewhere. This grows out of, and continues to reflect, a tradition of formal public debate in classical India.
2. This is followed by the work of the Buddhist epistemologists, beginning with Dignāga’s “wheel of inferential reasons” (hetucakra), and expanded and elaborated by Dharmakīrti and his successors. The last stages of this, formalising the triple conditions on the reason, from Dharmakīrti through Dharmottara to Mokṣākaragupta, were the focus of the previous chapter.
3. Inspired by, and in response to, this Buddhist model, the Naiyāyikas develop an account of five conditions for a genuine inferential reason, connected to the five pseudo-reasons (which pseudo-reasons were already present in NS). This is the first of the two accounts examined in this chapter, which occupies section 2.
4. Finally, Udayana expands on the Naiyāyikas’ five-limbed model, to include an appeal to hypothetical reasoning (tarka). I turn to this in section 3 below.

Of course, new and revised theories continue to be developed in the centuries following Udayana. Naïve, or at least incomplete, discussions of “the Nyāya syllogism” (as though there were only one such thing, which remained static for millennia) typically refer only to the first stage in this progression. As examples of such discussions, see King (1999: 131) and Matilal (1998: 4–5).

² Compare, for instance, Patil’s (2009: 59ff) account of “the standard form in which Naiyāyikas ... present inferential arguments.”

³ We know that the objector in this portion of the NKA is a Buddhist epistemologist, based on the exchange which opens the third book (NKA 311.4–312.2), in which the speaker treats perception and inference as though they exhaust the list of epistemic instruments (pramāṇa)—a view which is characteristic of the Dharmakīrti school.
the work of Varadarāja (12th c.), the author both of a commentary on the NKA and of a textbook of Nyāya philosophy.⁴

Section 1 of this chapter will address some features common to both of these two approaches. In section 2, I consider the first approach, by reference to the works of Jayanta and Keśava, and by making explicit comparison to the views of Dharmottara and his fellow Buddhist epistemologists. Section 3 presents Udayana’s alternative approach, and shows how a proper understanding of his account of hypothetical reasoning helps to make sense of the structure of the first book of the ĀTV. Finally, in section 4, I briefly consider the prospects for productive philosophers engagement between Buddhist and Nyāya thinkers, given their similar yet divergent theories of inference.

1 Basic Features of the Nyāya Accounts

The Naiyāyikas have their own distinct account of inference as epistemic instrument. In the typical style of classical Indian philosophy, they deploy the much of the same technical vocabulary as their Buddhist rivals, but with their own alternative definitions of some important concepts, and a unique approach to their organisation.

We may again consider the same three questions which guided my exposition of Dharmottara’s Buddhist account of inference, namely:

1. What are the conditions under which a given property (i.e., a putative inferential reason) is in fact a genuine reason?

2. What makes it the case that a given property satisfies these conditions (and is therefore a genuine reason)?

3. How do we know that a given property satisfies the conditions?

⁴The latter is structured as a prose commentary on the author’s own summary verses. The verse-text is known as the Tārkikaraksā (TR); the prose autocommentary is the Sārasaṁgraha (SS).
1.1 Inference for Self and Others

Like the Buddhist epistemologists, the Naiyāyikas recognise a distinction between inference for oneself—a cognitive process by which an individual cogniser obtains knowledge of remote things by the working of an inferential reason—and inference for others, the linguistic expression intended to generate an inference for oneself in another person. However, they explain both sorts of inference in quite different ways from the Buddhists.

On their account, inference for oneself comprises a series of three cognitions by which a cognising agent can proceed from an awareness of an inferential reason $H$ to an awareness of a target property $S$.\(^5\) In general terms, the three awarenesses are:

1. An antecedent awareness of the pervasion of the reason property $H$ by the probandum $S$.
2. An awareness of $H$ in the inferential locus $P$, accompanied by doubt about the presence of $S$ in $P$.
3. An awareness of $H$ as pervaded by $S$ in $P$.

In terms of the stock example, where someone infers fire on a hill from smoke, the first awareness comes from repeated observation and non-observation of the presence of fire wherever there is smoke, in places such as the kitchen hearth, and the absence of smoke wherever there is not fire, in other places like large bodies of cold water. From such repeated observation, the cognising agent has the awareness of the pervasion of smoke by fire. The second awareness comes when the cognising agent observes the column of smoke rising up from a distant mountain, and wonders whether or not there is also fire there. Finally, having recalled that smoke is pervaded by fire, he has the special consideration of smoke as pervaded by fire, which immediately generates his awareness of the presence of fire on the mountain. Strictly speaking, it is this third awareness,

\(^5\) Here, my basic description of the inferential process closely follows Patil (2009: 52–56), who like me relies heavily on KTBh.
the special consideration of H (liṅgaparāmarśa), which just is the epistemic instrument (pramāṇa) known as inference.⁶

1.2 Pervasion

In describing the first and third awarenesses, pervasion (vyāpti) is the same technical term employed by the Buddhist epistemologists, who analyse the requirement for pervasion in terms of conditions T₂ and T₃. But where the Buddhists take pervasion (like all relations between “universals,” or repeatable entities) to be entirely determined by the mental construction of concepts which are imposed by human cognisers onto external particulars, for Udayana and his fellow Naiyāyikas, pervasion is a real, mind-independent, objective, discoverable feature of the external world. More importantly, the relation of pervasion holds not between sets of particulars (as the Buddhists are committed to claiming), but between real universals (sāmānya). This means that there will be facts about pervasion even if, on a given day, nothing in the world possesses either of the two properties between which the pervasion relation holds.⁷ So even if, for example, an especially hardworking team of lumberjacks were to cut down and subsequently destroy every tree in the world, it would still be the case that being a tree pervades being a śimśapā, and that being a śimśapā does not pervade being a tree, despite the sets of śimśapās and of trees both being empty. This also underscores the limitations of common symbolic paraphrases of Indian inferential forms. Letting Sₓ mean “x is a śimśapā” and Tₓ mean “x is a tree,”

$$(\forall x)(S_x \supset T_x)$$

is entailed by the fact that being a tree pervades being a śimśapā, but this material conditional does not capture the full meaning of that fact. Once the lumberjacks had done their dirty work, it would be (vacuously) true to say that all trees are śimśapās, and

⁶KTbh 31.3 = LM 2.2: liṅgaparāmarśo ’numānam.
⁷For the imperishability of universals, even when they have become “homeless,” see Matilal (1986: 383).
would likewise now be vacuously true, since in our treeless world, the antecedent will never be true.⁸ Nevertheless, being a śimśapā would not pervade being a tree.

So in regard to our second question, of what makes it the case that a given property is a genuine inferential reason, the Nyāya answer is ultimately grounded in the objective, mind-independent fact that there is a natural relation between H and S. Since the appropriate co-presence and co-absence of H and S is something true of H and S regardless of our ever considering why, or even whether, such a relation obtains, there is no need for the Naiyāyikas to restrict its instantiation merely to cases of causal relations and essential identity, as Dharmakīrti and his followers do. This deliberately held, and fiercely defended, position will in turn admit of a far greater range of legitimate inferences than the Buddhist theory.⁹

Where the Naiyāyikas’ account of inference for oneself is significantly more complex than the Buddhist account, in requiring the appropriate sequence of three awarenesses, their account of inference for others is correspondingly lengthier, in order to ensure that the listener is led through all three awarenesses in the appropriate sequence. So while they will sometimes mention an abbreviated form of the inference which mimics the Buddhist inference for others in its single mention of H, S, and P, Naiyāyikas’ ideal presentation of an inference proceeds by a well-known (if little-understood) series of five steps.

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⁸Provided, of course, that we are using the classical material conditional, which does not track the past or future.

⁹See Patil (2010: 196), who argues that “On [the Naiyāyikas’s] view, Dharmakīrti’s theory was, in fact, not successful specifically because its requirement that law-like relations underwrite extrapolation was too restrictive and ruled out many legitimate inferences.”
2 The Five-Limbed Model

2.1 Exposition of the Five Conditions

In answer to our first question, both Jayanta and Keśava offer a list of five defining characteristics of a good inferential reason, the first three of which parallel the Buddhists’ triple conditions. They are:

P₁ being a property of P (pakṣadharmatvam)

P₂ presence in SP (sapakṣe sattvam)

P₃ exclusion from VP (vipakṣād vyāvṛttih)

P₄ having an object which is not sublated (abādhitaviṣayatvam)

P₅ being not counterbalanced (asatpratipakṣatvam)

These five marks are attested favorably, if not necessarily enthusiastically, by the commentators on the Nyāyasūtras. Jayanta Bhaṭṭa, like Keśava, places the list of these five conditions front and center, at the beginning of his discussion of inference.¹⁰

Jayanta and Keśava admit of three varieties of legitimate inferential reasons. The first, and most standard, variety is the positive-negative (anvayavyatirekī) reason. To be a genuine reason of this type, the property H must satisfy all five of the conditions P₁–P₅, which requires that there be both a similarity class SP and a dissimilarity class VP to which H is appropriately related. The inference of fire from smoke exemplifies this: there are fire-possessors other than the hill in

¹⁰NM vol. 1, 283,2–5. For the second condition, the reading sapakṣe sattvam which is attested in the notes should undoubtedly be preferred to the editor’s chosen reading, sapakṣadharmatvam. The latter would be an easy error for a copyist, glancing back at the first condition, to make. The former reading is not only consistent with earlier and later Naiyāyikas’s formulations of the condition, but also squares better with Jayanta’s own gloss, tatrāstitvam which directly follows (NM vol. 1, 283,8), and simply makes better philosophical sense, since no univocal reading of taddharmatvam, ‘being a property of that,’ could suitably capture both the required relation of H to P (where H must be present in all instances) and the required relation of H to SP (where H need only be present in some instances).
question (the kitchen and the like), at least some of which are smoke-possessors, and there are non-fire-possessors (the lake and the like) from which smoke is excluded. Since the Buddhists require both SP and VP for all inferences, their three types of inferential reasons (causal product, essential identity, and nonapprehension reasons) are all included in, but do not exhaust, this class of positive-negative reasons.

The other two kinds of reason follow from a willingness to accept reasons which lack either SP or VP (but not both). An inferential reason which lacks any SP is called “only-negative” (*kevalānvayī*), because the pervasion requirement is satisfied by P₃, the requirement for negative concomitance, alone. Such reasons, then, need only satisfy four conditions: P₁, P₃, P₄, and P₅. The most important use of such reasons is in giving definitions; that is, showing that a certain group of things are appropriately called by a certain name, in virtue of their possessing some unique defining property. An example of such an inference is

> These things are called “cows,” because of their having a dewlap, unlike horses and the like.

By pointing out such a unique feature, we show that we have a unified group of things which are fittingly referred to by a common name.¹¹

A reason which lacks any VP is called “only-positive” (*kevalavyatireki*), because pervasion is satisfied by P₂, the requirement for positive concomitance, alone. An inferential reason of this type also only needs to satisfy four conditions: P₁, P₂, P₄, and P₅. Such inferences are employed when doubt arises about the applicability of some all-inclusive property to a particular case. Keśava gives the example:

> This thing is nameable, because of its being an object of knowledge. Whatever is an object of knowledge is nameable, like a pot.¹²

¹¹Keśava offers a different example (KTbh 40.1–3), which requires the postulate of the Nyāya-Vaiśeṣika ontology, that the element earth is considered be the sole locus of smell, in contradistinction to all the other elements.

¹²KTbh 40.10–11: viśeṣo ’bhidyeyah | prameyatvāt | yat prameyam, tad abhidheyam, yathā ghaṭaḥ.
The important stipulation in all these cases is that every inference must have at least one of SP and VP. The two types of inferential reasons which have SP must satisfy P₂, while the two types of reasons which have VP must satisfy P₃.

2.2 Pseudo-Reasons and the Five Conditions

Finally, then, Keśava can provide a general definition of pseudo-reasons, relative to the five conditions.¹³

And thus, the three kinds of reason—the positive-negative, the only positive, and the only negative—have been described. Those things which are other than these are pseudo-reasons. Those things which appear like a (genuine) reason, but which lack one of the marks of a genuine reason, are pseudo-reasons.¹⁴

A subsequent discussion is even more explicit:

Non-reasons are those which lack some (one or more) of the defining marks, such as being a property of the inferential locus (P₁) and the like, which were mentioned earlier. And those non-reasons which resemble genuine reasons, on account of having some number of the marks of a genuine reason, are pseudo-reasons.¹⁵

Here, Keśava first divides all properties into two groups: reasons (hetu) and non-reasons (ahetu), where the former satisfy all of the conditions, and the latter do not. Then, Keśava distinguishes a subset of the non-reasons which, in virtue of their at least meeting some of the conditions, come

ⁱ³Pandeya (1984: 47) gently suggests that the historical situation was the other way around, in that the five conditions on the reason were derived from Gautama’s list of five pseudo-reasons in NS 1.2.4. We might go even further, to suggest that such a back-formation of the five conditions from the pseudo-reasons came in response to the discussions of the triple conditions which played such a pivotal role in Buddhist theories of inference.

ⁱ⁴KTBh 42.4–6: "tad evam anvarayatireki, kevalānvayi, kevalayatireki ceti trayo darsitāḥ | ato 'nye hetvabhāsāḥ | hetulaksanarahitā hetuvad avabhāsanā hetvabhāsāḥ.

ⁱ⁵KTBh 101.1–102.1: "uktānāṃ pakṣadharmatvādāṃrūpyāṃ madhye keñapi rūpeṇa hinā ahetavāḥ | te 'pi katipaya- heturūpayogād dhetuvad abhāsamāna hetvabhāsāḥ."
to resemble genuine reasons, and are therefore called pseudo-reasons. This would make a fine
gloss on the more compact definition given by Udayana: “non-reasons which appear like genuine
reasons are pseudo-reasons.”¹⁶

Jayanta and Keśava each go on to define five varieties of pseudo-reasons, each of which cor-
responds to a violation of one or more of the five conditions on the genuine reason property. In
Jayanta’s chapter on inference, the discussion of the pseudo-reasons follows directly after the
exposition of the five conditions on the reason (at NM 283.16–284.12). The first case is presented
as follows:

That pseudo-reason which does not satisfy “being a property of the locus, P” is the
pseudo-reason called “unestablished.” [H1] For example...¹⁷

Each subsequent case is presented in the same form, defining another type of pseudo-reason,
in terms of lacking another one of the five conditions.¹⁸ Keśava’s exposition is similar, though
he goes on to subdivide the first three pseudo-reasons into various (closely related) subtypes,
in order to illustrate what he takes to be an exhaustive list of the different ways in which the
corresponding conditions can be violated.

For both Jayanta and Keśava, the same general picture emerges. A putative inference is gen-
une (i.e., it is properly called anumāna, as opposed to being the mere semblance of an inference,
anumānābhāsa), just in case the reason property satisfies all five conditions. We can demonstrate
that we have a genuine inference either directly, by verifying that the five conditions are satisfied,
or indirectly, by verifying that the (putative) reason property is not in fact a pseudo-reason; that
is, on the indirect method, we rule out the various violations of the five conditions.

¹⁶LM 7.7: ahetavo hetuvad ābhāsamānā hetvābhāsā iti sugamaṃ bhāsyam. While Udayana attributes this definition
to the author of the Nyāyabhāṣya, NBh on the relevant sūtra (NBh 42.7, ad NS 1.2.4) actually reads hetulaksāṇabhāvād
ahetavo hetusāmānyād hetuvad ābhāsamānāḥ in every edition of the text which I have been able to consult.
¹⁷NM 284.1: yasya paksadharmatā nāsti—asāv asiddho hetvābhāsāḥ | yathā...
¹⁸The second case, regarding the “opposed” pseudo-reason, deviates slightly, though this does not present a major
difficulty for my interpretation.
2.3 The Relation of P₁–P₃ with T₁–T₃

The first three of Jayanta’s and Keśava’s marks for a good inferential reason are roughly analogous to Dharmottara’s triple conditions, but with two notable differences: the absence of the restrictive particle *eva*, and the absence of the term “certain” (*niścitam*). Accordingly, Keśava provides a different account of the corresponding pseudo-reasons, H₁–H₃.

2.3.1 The Restrictive Particle *eva*

The first of these differences is more one of style and expressive clarity than of substance. It is notoriously difficult to pin down a precise syntax for the particle *eva* according to which all three of the conditions mean what Dharmottara needs them to mean. Uddyotakara offers a sharp criticism of precisely this point,¹⁹ and much ink has been spilled in the recent scholarship over the problem.²⁰ Jayanta and Keśava’s formulations are intended to do much of the same work as Dharmottara’s, without the need to agonise over the interpretation of the restrictive particle.

P₁, like T₁, requires that the inferential reason H be a property of the locus P. Here, perhaps, Jayanta and Keśava’s condition is more expansive than Dharmottara’s, in that the Naiyāyikas will admit of a great many properties which do not fully pervade their property-possessors. We can illustrate this most clearly with color properties. A pot need not be blue all over in order to be a locus of the quality blue. It might have a pattern of alternating blue and red stripes, such that blue color and red color are both among its properties, while green, yellow, and the like are not. There is, then, a sense in which the pot is a locus both of blue and of non-blue. This will extend to other properties: the hill in our stock inference need not be fully engulfed in smoke in order for it to be a locus of smoke; but if the hill does not have any smoke at all, then P₁ will not be satisfied.

²⁰See, for instance, Ganeri (1999a), and the sources cited there.
P2, like T2, requires that at least some things in SP be loci of H, without the unwelcome suggestion that because H is only in SP, it cannot also be found in P—a suggestion which the Buddhist, by carefully specifying the syntax of eva, can of course avoid.

P3, like T3, forbids any presence of H in VP. Here, phrasing the condition in terms of the exclusion of H from VP, as Jayanta and Keśava do, comes to the same thing as permitting only the non-presence of H in VP, as Dharmottara does.

2.3.2 The Cognitive Requirement niścitam

The second difference, over the (non-)employment of the term “certain” (niścitam), reflects a radical disagreement over how the concept of doubt is to be understood, as well as a difference in what makes it the case that these three conditions are satisfied; that is to say, a difference in what the conditions (and the process of inferential awareness which they describe) are about. This is directly relevant to our first interpretive question, regarding the conditions under which a property is a genuine inferential reason.

As we saw in section 2.2 of chapter 2, for the Naiyāyikas, epistemically relevant doubt is always disjunctive in form. This disjunctive conception of doubt explains why Praśastapāda, writing in the closely related Vaiśeṣika tradition, refers to H3, the inconclusive pseudo-reason, by the name “doubtful.”²¹ Since the pseudo-reason is present in both SP and VP (in the case of H3a) or in neither of them (in the case of H3b), such a pseudo-reason is an equally good reason for S and ~S, and so the only legitimate resulting cognition is a disjunctive one: “either S or ~S.” The Buddhists, however, are working with a much more ambiguous concept of doubt, as evidenced by Dharmottara’s distinction between the unstarred counterestablishment cases of H3a and H3b, which correspond to the Nyāya-Vaiśeṣika notion of doubt, and the starred cases H3a* and H3b*, which employ the Buddhist notion of doubt.

²¹PBh 272.
While the Buddhists (i.e., Mokṣākaragupta, following Dharmottara) and the Naiyāyikas (Jayanta and Keśava) each provide a list of necessary and sufficient conditions for a genuine reason property, we should be very careful to note that they are each answering a slightly different question with their lists, on account of their different definitions of inference itself. Since for Mokṣākaragupta, inference is merely the cognition of S which directly follows upon the cognition of H, any requirement for the cogniser’s awareness of H’s being appropriately related to S and to P (i.e., his knowing that H pervades P and is pervaded by S) must be built directly into the conditions for H’s being an inferential reason, since there is nowhere else to put them. This is done with the term niścitam, ‘certain,’ in each of the triple conditions. That is to say, given Dharmottara and Mokṣākaragupta’s set of conditions on the reason, there can be no facts about H’s being a reason for S in the abstract, considered apart from the epistemic situation of some particular cognising agent in some particular place, time, and circumstance. Since the only “universals” the Buddhist has available to him are those which are conceptually constructed by some cognising agent or other, this fact of reason properties being epistemically dependent on specific cognisers should not be too surprising.

Keśava, however, is working with the standard Nyāya definition of inference as “the special consideration of an inferential reason” (liṅgaparāmarśa), in a world where substances, qualities, universals, and the like stand in various relations to each other in an objective, mind-independent way. There is thus room for H to be a reason for S, even if no one uses H to infer S, or attends in any way to H’s being such a reason, even if some people do have an awareness of H simpliciter. Keśava can use the requirement for special consideration (parāmarśa) to ward off the unwelcome consequence that simply by cognising things which are (objectively) reasons for a wide range of inferential probanda, people would have to be making an extraordinary number of inferences all the time. Thanks to the requirement for special consideration in the definition of inference, in order to have the inferential awareness of S, a cogniser must not only be aware of H, but must be
aware of H insofar as it is a reason for a doubtful S in a particular P. Smoke on Mount Kailāsa is a reason for inferring fire on that mountain whether or not anyone performs the inference, but for Devadatta to have an inferential cognition of fire on Mount Kailāsa, he must, after having an antecedent doubt about whether or not fire is present, consider the smoke as an inferential reason for fire; that is, as a property of Mount Kailāsa (P) and as pervaded by fire (S).

The fundamental different between the Buddhist account offered by Dharmottara and Mokṣākaragupta, and the Nyāya account given by Jayanta Bhaṭṭa and Keśavamiśra, is that for the Buddhists, H’s being an inferential reason for S is a subjective feature of the cognitive state of some cogniser, and in particular, is dependent upon how that cogniser mentally constructs and considers the concepts H and S, while for Keśava, H’s being an inferential reason for S is an objective fact about H, irrespective of anyone’s being aware of this fact or actually using it in the process of forming an inferential awareness of S. This is directly analogous to the way in which a particular pot has an incredible variety of properties, such as its tallness, roundness, blue color, and the like, even if no one is currently attending to a particular one, or to all, of them.²² For both the Naiyāyikas and the Buddhists, the relations of the target property S to P, SP, and VP is defined epistemically, with the appropriate terms saṃdigdha and niścita, since the cogniser must have doubt about the presence of S in P in order to motivate the inference. It is only the status of the relations of the reason property H to P, SP, and VP about which the two groups disagree, with the Buddhists defining these relations epistemically as well, but with the Naiyāyikas defining them absolutely. Because of this different understanding of how inference operates, and of the underlying ontology which allows for that operation, Jayanta and Keśava deliberately do not use the term “certain” (niścitam) in their statements of P₁–P₃.

²²Owing to his omniscience, Īśvara will be directly (that is, perceptually) aware of all the facts about which things are inferential reasons for which others, in just the way that he has direct awareness of all the properties of the pot, but he will never deploy any of them in an inference, since he already has perceptual awareness of every potential S.
2.3.3 The Pseudo-Reasons H1–H3

In keeping with these differences in his formulations of the first three conditions on the reason, Keśava provides an account of the first three pseudo-reasons which differs from that of Dharmottara, particularly in the subdivisions of H1 and H3. As we saw in section 5.2 of chapter 3, Dharmottara’s doubting subtypes of H1 and H3 were excluded by the term niścitam in the statements of the triple conditions. Since this term is purposefully left out of Keśava’s corresponding conditions, Keśava does consider any of Dharmottara’s starred cases to be pseudo-reasons at all.²³ Keśava acknowledges close analogues of all the remaining, unstarred cases, though these are to be understood not in terms of the cogniser’s certainty that particular conditions are not met (i.e., his certainty about their counterestablishment), as they were for Dharmottara, but in terms of (the facts about) real things, in virtue of which particular conditions on the reason, stated non-epistemically, are not satisfied.

Unestablished Pseudo-Reasons (H1)  Keśava divides H1, the unestablished pseudo-reason, into three subtypes: unestablished in its locus, unestablished in itself, and unestablished in being pervaded. The first two of these were also discussed by Dharmottara and Mokṣākaragupta.

For the pseudo-reason which is unestablished in its locus (H1a), where the Buddhists gave the highly loaded example involving the omnipresence of the soul, Keśava gives the much less controversial example:

The sky-lotus is fragrant, because of its being a lotus, like a lotus which lives in water.²⁴

²³The one exception is the instance of H3b* in which the reason lacks both SP and VP. This is the variety which Ratnakirti, as well as Udayana and the later Naiyāyikas, sometimes refer to as H3c, anupasamhārin, and which Keśava (and sometimes Udayana and other Naiyāyikas) take as a variety of H1c, which I discuss below.
²⁴KTBh 42.10–11: gaganāravindaṃ surabhi | aravindatvāt | sarojāravindavat.
Because the sky-lotus does not exist, it is futile to attempt to ascribe any properties, such as being fragrant or being a lotus, to it. For this reason, “being a lotus” fails as a reason, due to its locus being unestablished.

For the pseudo-reason which is unestablished in itself (H1b), where the Buddhists’ example dealt with sound’s eternality, Keśava gives the example of attempting to infer the non-eternity of sound:

Sound is non-eternal, because of being perceptible by the eye, like a pot.²⁵

This example makes the pseudo-reason particularly clear, since sound really is non-eternal, which can be established by a proper inference using a genuine reason like “being a product.” But the putative reason “being perceptible by the eye” is not able to establish sound’s non-eternity, since while the locus itself is well established, it is clear that this reason does not belong to the locus.²⁶

Finally, Keśava discusses pseudo-reasons which are unestablished in being pervaded (vyāpyatvāsiddha, H1c). There are two cases. In the first case, there is no epistemic instrument by which any pervasion relation between H and S can be grasped.²⁷ For his example of this first case, Keśava cites the Buddhist inference for momentariness:

Everything which exists is momentary, like a pot. And all these things which have become the topic of debate, such as sound and the like, exist.²⁸

Here, the problem comes from trying to place everything into the inferential locus P, leaving nothing which the Buddhist and the Naiyāyika agree is momentary to constitute the SP (since the Naiyāyika does not accept any such things), nor anything they agree is not momentary to constitute the VP (since the Buddhist acknowledges none of these). After presenting this very

²⁵KTBh 42.12: śabdo ‘nityaś cākṣuṣatvāt | ghaṭavat.
²⁶In a subsequent discussion (KTBh 104.9—105.13), Keśava discusses several special cases of H2, in which only one portion of a complex reason is unestablished.
²⁷cf. KTBh 43.1: eko vyāptigrāhakapramāṇābhāvāt.
²⁸KTBh 105.15–16: yat sat, tat kṣaṇikam, yathā jaladharah | saṃś ca vivādāspibhūto śabdādir iti.
inference in the ĀTV, Udayana’s first major line of criticism is precisely to charge his Buddhist opponent with employing an H₁c pseudo-reason. I will consider this critique, along with various strategies for trying to find a similarity class SP, in chapter 6. To the extent that Dharmottara and Mokṣākaragupta recognise such cases, they would classify them as having a pseudo-reason which is uncommon due to doubt (H₃b*).²⁹

The second case of H₁c occurs when there is a limiting condition (upādhi) which undercuts the putative inferential reason. Keśava defines a limiting condition as “that which, while being a pervader of S, is not a pervader of H.”³⁰ His most clear example of a defective inference employing such a pseudo-reason is:

Killing which occurs within a sacrifice is the cause of demerit, because of being killing, like killing which occurs outside of a sacrifice.³¹

In this example, the limiting condition is “being forbidden.” Within Keśava’s Vedic religious context, most cases of killing are forbidden, while other cases (specifically, those which occur as part of a sacrifice) are not forbidden, but are in fact enjoined by the Vedas. This shows that the proper reason, from which we can infer something’s being the cause of demerit, is not killing in general, but only killing which is qualified by being forbidden. Killing so qualified is not to be found in P, and so this putative inference fails.

**Opposed Pseudo-Reasons (H₂)** For opposed pseudo-reasons, which, as we saw from Dharmottara’s discussion, are in fact genuine reasons for proving ~S, Keśava like the Buddhists offers the putative reason “being a product” in an attempt to prove eternality:

Sound is eternal, because of being a product.³²

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²⁹As we saw above, the Naiyāyika has a different notion of doubt.
³⁰KTBh 43.8–9: sādhyavyāpakatve sati sādhanāvyāpaka upādhiḥ. Gangopadhyay (1971: 150–156) provides a rigorous and incredibly helpful examination of this definition.
³¹KTBh 54.6–7: kratvantaravarttini himsādharmsādvahanam himsātvat | kratubāhyahimsāvat.
³²KTBh 44.4–5 = KTBh 106.21: śabdo nityaḥ kṛtakatvāt.
CHAPTER 4. NYĀYA ACCOUNTS OF INFERENCE

Everything which is a product is, of course, non-eternal.

**Inconclusive Pseudo-Reasons (H₃)** Finally, there are the inconclusive pseudo-reasons (H₃). Once again, Keśava does not acknowledge the Dharmottara’s doubting subtypes, but does accept analogues of the Buddhist’s counterestablishment cases, which are to be appropriately reinterpreted in terms of the objective status of the putative reason property as being equally incapable of proving either S or ~S. He offers the general definition, that “a putative reason which leads to doubt about S is inconclusive,”³³ where “doubt” is to be understood not in the Buddhist’s vague sense, but according to the Naiyāyika’s strictly disjunctive account. He also states explicitly that the inconclusive pseudo-reason is of precisely two kinds: the common and the uncommon.³⁴

A pseudo-reason which is inconclusive because of being common (H₃a) is just that which exists in P, SP, and VP.³⁵ Keśava’s example employs the same putative reason property as Dharmottara’s first (and Dharmakīrti’s only) illustration of this type:

Sound is eternal, because of being an object of knowledge.³⁶

A pseudo-reason which is inconclusive because of being uncommon (H₃b) is similarly defined in terms of existence and exclusion: “That which is excluded from SP and from VP, and which is present only in P, is inconclusive because of being uncommon.”³⁷ Where Dharmottara’s example tried to employ the property “being audible” to prove something about sound, Keśava’s illustration similarly attempts to use the property “having smell,” which on the Nyāya-Vaiśeṣika account is unique to the element earth, to prove something about earth:

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³³KTBh 107.3: sādhyasamśayahetur anaikāntikaḥ.
³⁴KTBh 44.7; KTBh 107.4. Udayana, in LM 7.8–9 citing NS 1.2.5 also states that H₃ is of only these two kinds (tatra anaikāntikāḥ savyabhicāra iti sugamaṃ sūtram | sa ca dvividhāḥ sādhāraṇo ’sādhāraṇaś ca), though in NVTP 316.5–6 commenting on the very same sūtra, he inserts a third subtype, the anupasamhārin, into a commentarial tradition where it was not previously mentioned: etena sādhāraṇāsādhāraṇānupasamhāryāḥ samgrhitā iti sphūtam.
³⁵KTBh 44.9, KTBh 107.5
³⁶KTBh 44.10, KTBh 107.5–6: śabdo nityah prameyatvād.
³⁷KTBh 44.10: sapakṣavipakṣavyāvṛttito yah pakṣamātravṛttīḥ so ’sādhārmānaikāntikāḥ.
Earth is eternal, because of having smell.³⁸

2.4 The Additional Conditions P₄ & P₅, and the Corresponding Pseudo-Reasons

The two additional conditions P₄ and P₅, which have no analogues in the Buddhist theory, follow from the Naiyāyikas’ externalist, reliabilist commitments. P₄, the non-sublation condition, is the requirement that a putative reason for S not be blocked by an awareness of ~S produced by some other epistemic instrument. Keśava needs this condition, which the Buddhists do not, on account of the Nyāya doctrine of pramāṇasamplava, the view that the same objects of knowledge can in principle be known by means of more than one of the epistemic instruments. For example, one agent, standing atop the hill, might cognise the fire on that hill directly by means of perception, while another agent, standing some distance away and able to see the column of smoke but not the fire, might cognise the very same fire by means of inference, while still another agent might cognise the fire by learning it from the testimony of one of the first two. The Naiyāyikas would obviously have a serious problem, if one epistemic instrument could produce knowledge of S, and another instrument knowledge of ~S, in regard to the same locus at the same time. The Buddhists, who cling fiercely to the contrary view that each epistemic instrument has an utterly unique scope of objects which it and it alone can make known (i.e., the doctrine of pramāṇaviplava), can rule out the possibility of such a problem without needing to resort to any additional condition like

³⁸KTBh 44.12 = KTBh 107.8–9: bhūr nityā gandhavattvāt.
A putative reason which does not satisfy this condition is known as “obstructed” (bādhita, H5). Keśava gives the example:

Fire is cold, because of being a product, like water.⁴⁰

Here, the alleged inferential awareness of the coldness of fire is blocked by perception, which informs us quite clearly that fire is hot.

P5, the requirement that an inferential reason for S not be counterbalanced by another equally good inferential reason for ~S, is motivated by an interesting class of problem cases. Keśava offers the following pair of (putative) inferences which fail this requirement, and thus exemplify the corresponding pseudo-reason H4 (prakaraṇasama or satpratipakṣa):

Sound is non-eternal, because of the non-apprehension of the property “eternal.”

Sound is eternal, because of the non-apprehension of the property “non-eternal.”⁴¹

This case is clearly a problem, yet both of the putative inferential reasons—the non-apprehension of the property “eternal,” and the non-apprehension of the property “non-eternal”—satisfy all four of the other conditions. Given that Devadatta is motivated to inference by his doubt over whether sound is eternal or non-eternal, neither of these two properties is apprehended by him in P, and so both inferential reasons satisfy P1. On the Nyāya ontology, there many eternal things, none of which are apprehended to have the property “non-eternal,” and vice versa, so in each case, there exist SP and VP which stand in the appropriate relation to H. And we can certainly imagine a case in which Devadatta has not learned about the non-eternity of sound through any

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³⁹The Naiyāyikas’ pramāṇasamplava view is motivated both by the place of testimony as a unique instrument which makes known to a second cogniser what an initial cogniser has already learned by some other instrument, and by the foundational status of perception, whose scope can take in even universals, absences, and the like. The Buddhists, of course, have only two epistemic instruments—perception and inference—and so they can avoid the first of these motivations, by considering knowledge acquired from testimony to be but a special case of inference. For Dharmakīrti, perception and inference are sharply distinguished, in that perception makes known only unique particulars, while inference makes known only universals. The distinction is complicated somewhat by Dharmottara (McCrea and Patil 2010: 16–20), but the basic principle of pramāṇaviplava remains.

⁴⁰KTBh 44.18–45.1: agnir anusnaḥ kṛtakatvāj jalavat.

⁴¹KTBh 108.5–6: śabdo ’nityaḥ | nityadharmānupalabdheḥ | śabdo nityaḥ | anityadharmānupalabdher iti.
other epistemic instrument (such as, for example, some reliable expert giving testimony about it). Still, these cannot both be genuine inferential reasons. In a lengthy discussion which follows the example, Keśava is careful to limit the scope of H₄ (and thus also of P₅) to cases in which neither of the two reasons depends parasitically upon the other.⁴²

We should note that these last two conditions, P₄ and P₅, are not related to the psychology of the inferential process in the same way as P₁–P₃. As we saw in section 1.1, the third awareness of the inferential reason, which awareness, strictly speaking, is the epistemic instrument, is an awareness of the reason as pervaded by the probandum and as being a property of the inferential locus. The first of these qualifications, “as pervaded by S,” requires that the cogniser be aware of H as being a property which satisfies P₂ and P₃, which conditions jointly describe the pervasion relation.⁴³ The second qualification, “as being a property of P,” just is the first condition on the inferential reason, P₁. And so, in order for the inference, as a genuine epistemic instrument, to be present, it is not enough that H objectively satisfies the first three conditions, P₁–P₃; rather, the cognising agent must have, as part of his awareness of H, the awareness of H’s satisfying P₁–P₃. Nothing about the description of the cognitive process of inference, however, requires an awareness of H as satisfying P₄ and P₅. That is to say, in order for a first-order inferential awareness (anumiti) to occur, it is necessary both that H satisfy all five conditions P₁–P₅, but only that the cogniser be aware that H satisfies P₁–P₃. In regard to P₄ and P₅, it is sufficient that they are satisfied, even if the cogniser is unaware of this. The knowledge that H satisfies P₄ and P₅ may, of course, be helpful for forming the higher-order judgment that the initial cognition was in fact genuinely inferential, but (as we saw in section 3.3 of chapter 2), nothing about the initial cognition is affected by the subsequent evaluative judgment which has the former as its object.

⁴²KTBh 108.6—109.5.
⁴³This is for positive-negative (anvayavyatirekī) inferences. Only-positive or only-negative inferences, of course, constitute special cases, in which the awareness of pervasion is fully captured by P₂ or P₃ alone.
3  Udayana’s Turn to *Tarka*

3.1  The Exchange in the NKA

In the relevant section of the NKA, the primary opponent is a member of the Buddhist epistemological tradition, a follower of Dharmakīrti. This Buddhist has spent several pages advocating for Dharmakīrti’s theory of inference, according to which an inferential reason $H$ is genuine, just in case that reason is connected to the target property $S$ either by a relation of causality or by a relation of essential identity.⁴⁴ After this, a new speaker enters the conversation. Udayana simply marks this change of voice by writing “Here, someone says...”⁴⁵ In his commentary, Varadarāja makes clear that this “someone” is an *ekadeśin*, a speaker who holds a part—but only a part—of the correct view, but who also omits some important piece of Udayana’s own view.⁴⁶ The *ekadeśin* argues that the Buddhist is mistaken, since we can verify the necessary connection between reason and target (and so, see that an inferential reason is genuine), “by the mere fact that it possesses the four or five characteristics.”⁴⁷ This is just the position of Jayanta and Keśava, which we explored in section 2 above. Udayana cites this view approvingly, but only to a point. While these five requirements do in fact characterise an inferential reason (answering our first interpretive question), it is not because of the requirements themselves that we come to know (answering our third interpretive question) that the reason and target are appropriately related (by the relation

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⁴⁴In the former case, $H$ might be the causal product of $S$ (e.g., smoke which is produced by fire) or $H$ and $S$ might be necessarily co-produced as two effects of a single cause. In the latter case, $H$ in some robust sense has $S$ as part of its essential nature, exemplified when $H$ is the property “being a maple” (or a *śiṁśapā*), and $S$ the property “being a tree.” I discuss the importance of this explanation of inference in Dharmakīrti, along with its abandonment by his successor Dharmottara, in chapter 3 of my dissertation.

⁴⁵NKA 337.3: *atra kaścid āha.*

⁴⁶NKA 337.17.

⁴⁷NKA 337.3: *catuḥpañcarūpasampattimātrenaiva.* As we saw in section 2.1 above, according to Jayanta and Keśava, P₃ and P₄ do not apply to reasons which are “purely positive” or “purely negative,” respectively, and so reasons of these kinds need only satisfy four conditions. The more common sort of reasons, which are “both positive and negative,” must satisfy all five conditions.
of pervasion, \textit{vyāpti}). Rather, Udayana explains, we become aware of the pervasion by means of hypothetical reasoning (\textit{tarka}).

Recall from chapter 2 that for the Indian thinkers, cognition is an event brought about, in any particular instance, by some particular causal process. So the question which Udayana is answering here is not “What makes it the case that the pervasion relation holds, between the reason and the target?” but rather “By what process does a cognising agent come to have an occurrent awareness that the pervasion relation holds?” The five conditions are, by themselves, an insufficient answer to this latter question; we must turn instead to \textit{tarka}.

### 3.2 Two Species of \textit{Tarka}

By distinguishing two species of hypothetical reasoning (\textit{tarka}), we can see the two major roles which such reasoning plays, both of which serve to make occurrent inferential awarenesses possible. The distinction is between unfavorable hypothetical reasoning (\textit{pratikūlatarka}) and favorable hypothetical reasoning (\textit{anukūlatarka}). The former is a quasi-inferential form of reasoning which brings out as its conclusion an undesirable or absurd consequence of an opponent’s view, in order to force him to abandon that view. It is “unfavorable” from the perspective of that opponent. The latter variety wards off potential objections to one’s own view, and so is “favorable” from the perspective of the speaker himself.

In both cases, the operation of \textit{tarka} is connected to the requirement for doubt as a necessary precondition to a genuine inference (\textit{anumāna}).

### 3.3 Conditions on a Genuine \textit{Tarka}

Varadarāja enumerates five conditions which genuine hypothetical reasoning (\textit{tarka}) must satisfy:

1. Pervasion (\textit{vyāpti})
2. Not being opposed by another hypothetical reasoning (*tarkāpratihati*)

3. Culminating in the contrary (*avasānaṃ viparyaye*)

4. Being undesired (*aniṣṭam*)

5. Being unfavorable (to the opponent) (*ananukūlatvam*)

Only that which satisfies all of these conditions, Varadarāja explains, is properly called hypothetical reasoning (*tarka*).⁴⁸ He continues, “In the absence of some one or the other of these five limbs, there would be merely the semblance of hypothetical reasoning.”⁴⁹ The term for this “semblance of hypothetical reasoning” (*tarkābhāsa*) is formed analogously with the term for the “semblance of an inferential reason” or “pseudo-reason” (*hetvābhāsa*).

The most interesting of these conditions is the first, the requirement for pervasion (*vyāpti*). We encountered the notion of pervasion earlier, as the relation between reason (*sādhana/hetu*) and target (*sādhya*) which underwrites a genuine inference. The same relation is at work here, only now, instead of speaking of the two relata as *sādhana* and *sādhya*, Varadarāja discusses the grounding property (*āpādaka*) and the grounded property (*āpādyā*). As with the “reason” in an inference, this notion of “grounding” should not be confused with a metaphysical explanation. An inferential reason explains our knowledge of the target, while the explanation for the things in the world being the way they are generally runs in the opposite direction. Likewise, the grounding property explains why the cogniser comes to entertain a thought of the grounded property.

In this way, an instance of hypothetical reasoning will be isomorphic to an inference, in having two properties related by pervasion, and predicated (or not) of various property-bearers. It will be necessary, then, that analogues of P2 and P3 hold for the grounded and grounding properties in the *tarka*. The key difference will be that the pervaded property (i.e., the grounding property, *āpādaka*, which is analogous to the inferential reason) will not actually be located in or on the locus of the *tarka*, whereas in a genuine inference, the pervaded property (the reason) is in fact

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⁴⁸TR 72: *vyāptis tarkāpratihatif avasānaṃ viparyaye | aniṣṭānanulūlatve iti tarkāṅgapañcakam ||

⁴⁹TR 73ab: *āṅgānyatamavaikalye tarkasyābhāsatā bhavet.*
so located. This is just to say that P1 cannot ever hold for an instance of hypothetical reasoning. Going through the process of hypothetical reasoning, then, will yield an awareness-event which has as its cognitive object an absurdity, a mistaken predication of the grounded property to the locus.

It will also turn out that at least one, if not both, of P4 and P5 will be violated in every tarka, in order that the cogniser be able to realise (by some epistemic modality, whether a proper inference or some other instrument like perception) that the pervasion relation together with the predication of the grounding property to the locus entail an absurdity. And it is for this reason—the combined violation of P1 with a violation of at least one of P4 and P5—that the grounding property in a tarka will never be considered a pseudo-reason (hetvābhāsa).

The second condition on a genuine tarka, that it not be opposed by another tarka, is analogous to P5 in Jayanta’s model of inference. If two putative tarkas demonstrate opposite conclusions, then neither of them can be relied upon.

The third condition requires that the hypothetical reasoning work ultimately in the service of bringing about knowledge of the truth (which will be contrary to the false immediate conclusion of the hypothetical reasoning itself). This serves to elaborate Udayana’s point, from section 3.1, that tarka is used to help the cogniser attain awareness of the pervasion which underwrites a good inference.

The fourth and fifth conditions are self-explanatory.

3.4 Applying Udayana’s Theory of Reasoning

This formal account of reasoning by tarka has two major payoffs, in terms of understanding the momentariness debate in the first book of the ĀTV. In the first place, we see that the structure of ĀTV I is arranged in order to provide all of the appropriate hypothetical reasoning (tarka), in the right order, in support of an inference for persistence. As I discuss in section 3.4.1 below, ĀTV I is
structured exactly as we would expect, given the theory of *tarka*—an interpretive key which has gone unnoticed (or, at least, unremarked upon) by all of the prior commentators. Secondly, the theory of *tarka* will interact meaningfully with the Buddhist’s strategy of reasoning by *prasaṅga*, for defending his inference for universal momentariness. I will explore this connection at length in chapter 6.

### 3.4.1 ĀTV I in Light of the Theory of Tarka

Within the first book of the ĀTV (on the refutation of momentariness and the establishment of persistence), there is a clear organizing structure which has been ignored in every published commentary, classical and recent. The classical commentators divide the first book of the ĀTV into six topics (*prakaraṇa*):

- **ĀTV I.1** The refutation of the Buddhist inference for momentariness, which uses “existence” as an inferential reason.
- **ĀTV I.2** The refutation of the Buddhist inference for momentariness, which uses the inevitability of destruction as an inferential reason.
- **ĀTV I.3** An inference from recollection (as inferential reason) to establish persistence.
- **ĀTV I.4** Refutation of the Buddhists’ theory of word-meaning and linguistic reference, known as “the exclusion of what is other” (*anyāpoha*).
- **ĀTV I.5** Arguments against the Buddhist thesis that cognition has a mental image (*ākāra*).
- **ĀTV I.6** Refutation of various supposed impediments (*bādhaka*) to the notion of a repeatable class-character.

Here, the principled organisation of topics is determined by Udayana’s theory of philosophical reasoning, and the role of *tarka*. The third topic—which occupies less than a page—is the presenta-

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50Note that these divisions are not original to Udayana, but are provided later, by the traditional editors and commentators. They appear, for instance, in the contents of the 1940 edition, and in the translation of Kher and Kumar (1987).
tion in written words of an inference-for-others, which should, if all goes well, cause Udayana’s reader to go through the cognitive process of inferring for himself, and therefore bring about knowledge of persistence (where that knowledge is, of course, an occurrent awareness). Everything which surrounds this portion of a page is, in a very broad sense, hypothetical reasoning, of the two kinds mentioned in section 3.2 above.

The first two sections each constitute an extended piece of pratikūlatarka, hypothetical reasoning which is unfavorable to the Buddhist’s seemingly well-established view. In each case, the Buddhist takes himself to have a genuine inference (for others) which, when properly understood, will bring about knowledge of momentariness. Because he takes himself to have such an inference, the Buddhist is not in a position of doubting whether or not things persist. Since inference for oneself, on the Naiyāyikas’ view, requires doubt, Udayana’s own inference for persistence would not be knowledge-generating for the Buddhist. Udayana must first undermine the Buddhist’s certainty which derives from his two inferences for momentariness, thus returning his opponent to a position of doubt. Only now can the appropriate sort of knowing-event be generated by Udayana’s persistence inference, in the third section. This explains why Udayana cannot state his own argument at the outset. According to his own account of good reasoning, the presentation of the (genuine) inference for persistence must wait until after the Buddhist has been brought to doubt.

Importantly, the framing as pratikūlatarka means that Udayana is not setting out to establish anything conclusive in these first two sections. His goal is merely to induce doubt, by raising a coherent alternative to his opponent’s positions. Doubt, for Udayana and his fellow Naiyāyikas, is always disjunctive: the consideration of two alternatives as possible, without definitive certainty about either. Consider the debate over the first portion of the Buddhist’s inference from existence, my examination of which occupies chapter 6. The Buddhist bases his inference in a certain account of causality and the nature of causal properties (properties like “having the ability
to produce X,” or “being the instrumental cause of X,” for some well-specified effect X). Udayana’s only burden in this section is to present an alternative, equally-plausible account of causality and causal properties, which explains all the same phenomena, but without necessitating momentariness. While this alternative account seems to be one which Udayana endorses, he does not actually need to convince his opponent of its truth. He need only place the opponent into a place where neither of the two accounts can be ascertained with certitude.

After all of this “unfavorable hypothetical reasoning” and the presentation of his own inference, Udayana’s opponent (and his reader) should come to have knowledge of persistence. At this point, Udayana takes up several ancillary considerations, in order to prevent his newly enlightened audience from losing that knowledge, or having it undermined. All of this argumentation constitutes favorable hypothetical reasoning (anukūlatarka).

The fourth section of Udayana’s chapter, which deals with seemingly unrelated topics in the philosophy of language, is illustrative. The Indian Buddhists developed their account of word-meaning as “the exclusion of others” in order to account for the apparent repeated use of words to refer to the same thing at multiple times, or to multiple things of the same kind, in a way that is compatible with the Buddhist thesis that, because nothing persists through time, everything which exists is an utterly unique particular. The purpose of Udayana’s arguments in this section is to show that, from a foundation in a metaphysics of persisting things, our ordinary discourse is easily explicable, while from a starting point in momentariness, no coherent explanation of the linguistic data can be given. This too is tarka, as the argument shows the entailment of an unwelcome consequence, from a starting point which the speaker knows to be false.

4 A Common Framework?

To return, then, to the three questions which have organised our examination of theories of inference, we see that owing to their radically divergent metaphysics, the Buddhists and the
Naiyāyikas have quite different answers to the first two questions. For Dharmottara, because the so-called universals about which we infer are entirely mentally constructed by us, the possibility arises that pervasion facts may be underdetermined, and so there is space for open-ended doubt as to whether a putative reason is appropriately related to the probandum and the inferential locus. Accordingly, the triple conditions themselves are formulated epistemically, in a cogniser-relative manner, by means of the term niścitam. The starred, doubting cases of the pseudo-reasons, in turn, are explicitly connected with the term niścitam in the triple conditions. So when, in answer to our third question, Dharmottara and his successors verify their inferential reasons by excluding the pseudo-reasons, they use a notably more stringent set of requirements than the Naiyāyikas would accept.

For the Naiyāyikas, since true universals are objective features of the world, the facts about pervasion are predetermined, in a manner independent of any particular cognisers. These objective facts about various properties, in turn, determine which of these properties are genuine inferential reasons, in virtue of their satisfying a set of conditions which are defined absolutely, rather than in an epistemically relative way.

Given their quite different metaphysics which explains what properties count as reasons, and why, the Naiyāyikas’ answers to the third question, of how we verify that a putative reason is genuine, are also correspondingly different. Like the Buddhists, they would accept the first of the difficult biconditionals from section 5.2 of chapter 3; namely, that X is a genuine inferential reason if and only if X is not a pseudo-reason. Keśava says as much, when he gives his general definition of pseudo-reasons.⁵¹ Yet the Naiyāyikas should not—and Udayana, at least does not—take this to be particularly helpful in arriving at a decision procedure. Because the relevant universals, and the pervasion relations between them, are objective features of the world, pervasion facts are not cogniser-dependent, and need not be reflectively available to any particular cogniser at

⁵¹KTBh 42.4–6, discussed in section 2.2 above.
any particular time. Since the requirement for reflective certainty is therefore absent from the statements of the conditions on the reason, the corresponding doubting (starred) pseudo-reasons are not available on the Nyāya account. So in cases where the cogniser is unsure whether a property should be classed as meeting a condition or demonstrating a defect, that uncertainty does not (as it does on the Buddhist model) allow him to resolve the matter merely by labelling that property as a doubting pseudo-reason. And thus, there is no principled explanation why the indirect method of excluding pseudo-reasons should be any more successful than the method of directly verifying the five conditions. As Udayana observes, the Naiyāyikas are left only with hypothetical reasoning (tarka) as a tool for removing doubt about the relevant pervasion relations and the status of genuine reasons as genuine.⁵²

Yet despite the radically divergent metaphysics which are supposed to explain why they work, the Nyāya and Buddhist theories of inference provide a substantial common frame, within which philosophical debates may be meaningfully situated. All parties require the same list of components (P, H, S, etc.) in their inferences, and they require that the same parts be related in basically the same ways, even if the underlying explanations differ as to why these relations hold. And finally, there is a substantial common set of pseudo-reasons, based on which both sides will acknowledge quite a lot of the same putative reasons as being defective. All of these features will go a long way toward providing a context for fruitful philosophical exchange, and may even allow results about what is inferable (or non-inferable) to decide disputed questions in metaphysics. It is to just such an exchange, over the possibility of inferring the momentariness of all existing things, to which I will turn in the remainder of my dissertation.

⁵²I will have much more to say about the role and epistemic status of hypothetical reasoning (tarka) in chapter 6, where we will see such reasoning deployed by Udayana and his Buddhist opponent in their debates over momentariness.
Chapter 5

The Inference from Existence

1  Momentariness Debates: Topics and Terms

In the first book of the Ātmattaviveka (ĀTV), Udayana is concerned with refuting the theory of universal momentariness—the claim that everything exists only for a single instant of time, before immediately passing out of existence—which is presented by his Buddhist interlocutor as a reason to deny the existence of a persisting soul. This is fundamentally a debate about the metaphysics of persistence.

1.1  Permanence, Momentariness, and Persistence

The momentariness thesis seems to be a development of the Buddha’s teaching that “everything is impermanent” (sarvam anityam).¹ In this statement, the relevant distinction is between being permanent (nitya) and impermanent (anitya). To be permanent is to exist forever—a condition the Nyāya philosophers attribute to God, universals, space, ether, and atomic substances, among other things. To be impermanent is simply not to exist forever, that is, to cease to exist at some

¹That the momentariness thesis is a later elaboration is evident, inter alia, from the intra-Buddhist debates concerning the view which extended at least until Vasubandhu, writing in the fifth century A.D.
point in time. The Naiyāyikas would cite ordinary, composite material substances as prime examples of impermanent things. Universal impermanence, then, is simply the claim that all of the things which allegedly belong to the first group (God, universals, atoms, etc.), if they exist at all, will cease to exist at some point.

The issue of impermanence must be distinguished from the separate, though related, issue of momentariness. An entity is momentary, just in case it exists for precisely a single instant of time, before immediately ceasing to exist. Momentariness is a much stronger claim than mere impermanence. Mere impermanence leaves open the possibility that a thing could persist for some finite but extended interval, while momentariness is the denial of that possibility. Combining these two pairs of terms, we have a three-fold classification, into which every entity X must find a place:

1. Permanent and (necessarily) non-momentary. X exists forever.
2. Impermanent, but also non-momentary. X exists for some finite, but extended, duration, after which it ceases to exist.
3. Momentary and (necessarily) impermanent. X exists for precisely a single instant of time.

We note that momentariness and permanence each logically preclude the other, while non-momentariness and impermanence each leave open both possibilities with regard to the other term.

The weak claim that “everything is impermanent” (sarvam anityam) is simply that nothing is of type (1), leaving open the question of which things (if any) are of types (2) and (3). The stronger claim “everything is momentary” (sarvam kṣaṇikam), advanced by Udayana’s rivals in the Buddhist Yogācara school, is that everything is of type (3). Udayana himself is committed to the view that nothing is momentary, which is to say, everything which exists belongs either to type (1) or type (2).² Various intermediate positions are, of course, also logically possible.

²There are at least two interpretive considerations for why Udayana must be committed to “universal persistence,” both of which will become more clear in the discussions to come. First, it is implied by Udayana’s critique of the posi-
1.2 Indian Momentariness Debates and Analytic Metaphysics

To better characterize the two positions, and clarify exactly what is at stake, it will help to situate the classical Indian momentariness debate within the discussion of persistence in contemporary analytic metaphysics. Sally Haslanger offers five principles which are jointly sufficient to generate the problem of persistence through a change in properties:

1. **Persistence condition**: Objects persist through change [of properties].
2. **Incompatibility condition**: The properties involved in a change are incompatible.
3. **Law of non-contradiction**: Nothing can have incompatible properties; i.e., nothing can be both P and not-P.
4. **Identity condition**: If an object persists through change, then the object existing before the change is one and the same as the one existing after the change; that is, the original object continues to exist through the change.
5. **Proper subject condition**: The object undergoing the change is itself the proper subject of the properties involved in the change.³

³Haslanger 2003: 316–317. As I understand it, the identity condition (4) serves to define explicitly what we mean by “persist” in the persistence condition (1). An attempt to avoid the contradiction by denying (4) would amount to giving up on the ordinary meaning of “persist.”
These five principles, as Haslanger explains, are jointly inconsistent. Holding all of them would commit one to a contradiction.

The dialectical strategy of Udayana’s Buddhist opponent rests on a strong reading of the incompatibility condition (2). The objector presents various pairs of (ostensibly) opposed properties, of which it seems that a persisting object must possess both at different times. The properties he selects are not meant to be mere accidents (as, say, blue color). Rather, they get at the heart of what it is to be a certain kind of thing—which, on the Buddhist metaphysics, is just to stand in certain causal relations.⁴ The three pairs of properties are “having the capacity to produce a certain effect X” and its negation, “being the causal instrument of X” and its negation,⁵ and “conjunction with the co-operating causes necessary for the production of X” and its negation. The Buddhist’s response to these incompatibility considerations is to deny the persistence condition (1) outright—a more radical position than most analytic metaphysicians are willing to countenance.

Contemporary analytic philosophers, who are unwilling to give up on the notion of persistence altogether, turn to one of three accounts, each of which denies some other of Haslanger’s five principles.⁶ The three accounts, each of which is intended to preserve the notion of persistence in some form, are endurance, perdurance, and stage theory (also known as exdurance).

Perhaps the least revisionary of these accounts is the endurance view, on which, following our ordinary intuitions, an object persists by being wholly present at different times. The contradiction is avoided by indexing the persisting object’s properties to various times, turning n-place

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⁴We might, then, call these essential properties, not in the weak sense of being monadic (cf. Haslanger 2003: 329–330), but in a strong sense of being metaphysically fundamental or explanatory. To take an example: the property of having an appropriate causal relation to a sprout is essential to being a seed, in a way that size or color properties are not. A thing could still be a seed (and even still a seed of the same kind), even if these latter properties were other than they are.

⁵This is the same notion of causal instrument (karana) which was introduced in setting up the theory of epistemic instruments (pramāṇa) in chapter 2. The causal instrument is the preeminent causal factor, that from which the effect inevitably, and immediately, follows.

⁶Haslanger (2003) provides a more detailed overview of each of the three accounts, along with copious references to the contemporary literature.
relations into $n+1$-place relations. An object is no longer simply blue, but blue-at-$t$. So, instead of a two place relation between the object (say, a pot) and its blue color, we have a three place relation between the pot, the color, and the time. The object can be blue-at-$t_1$ and not blue-at-$t_2$, without falling victim to the law of non-contradiction. The endurance theorist thus denies the incompatibility condition (2).

Rather than modifying our common-sense account of properties, proponents of the other two contemporary views (namely, perdurance theory and stage theory) deny the proper subject condition (5) above, claiming instead that temporal parts, or stages, of ordinary temporally-extended objects are in fact the proper bearers of properties, as opposed to the extended objects themselves being the primary property-bearers. We say that the pot is blue in a derivative way, on account of the fact that, in the primary way, a stage or temporal part of the pot is blue.

For the perdurantist, just as a persisting thing is composed at any one time of distinct physical parts which exist at various points in space, it is also composed of distinct temporal parts which exist at various times. The object is the four-dimensional composite of all of these parts. So while the four-dimensional composites are the primary entities, they get their properties in virtue of their parts having the properties.

The stage theorist likewise admits both stages and composites into his ontology, and agrees with the perdurantist that composites are the proper bearers of properties. But instead of unifying stages into temporally-extended wholes via the composition relation (as the perdurantist does), he instead employs a counterpart relation, analogous to the relation commonly appealed to in explaining modal identity across possible worlds. On this view, the temporal stages are the primary things, and they are connected to other things (and thereby said to persist) thanks to these other things being their temporal counterparts.⁷

⁷This seems also to involve a denial of the identity condition (4), in addition to the already mentioned denial of the proper subject condition (5).
Udayana’s Buddhist opponent would fully support this move of including temporal stages in our ontology, but would go further than either the perdurantist or the stage theorist, to maintain that there are only temporal stages, which lack any extension in time.⁸ That is, the Buddhist denies that either the cross-temporal composition relation (favored by the perdurantist) or the counter-part relation (favored by the stage theorist) should be an objective part of our metaphysics. This has the happy consequence of avoiding the problems associated with unrestricted mereological composition, but leaves us without any temporally-extended things in our ontology. Insofar as we can (and do) think and talk about such extended things, they are only concepts constructed by us, out of (temporal) particulars which are, in reality, all equally and utterly distinct from one another. And here, we have the rejection of persistence.

Udayana’s response to the persistence problem is to deny the incompatibility condition (2), which puts him in the company of the modern endurantists. He does this in different ways, depending on the specific pairs of seemingly opposed properties under consideration. In the case of “capacity for producing X” and its negation, Udayana simply shows that any given thing only ever possesses one or the other; while for the case of “being the causal instrument for X” and its negation, Udayana responds to the Buddhist by appropriately indexing the properties. In the case of the essential properties, related to causality, which Udayana considers in the ĀTV, this indexing is not to times as such—in the way that the contemporary endurantist indexes her properties—but rather to the presence and absence of other substances, namely the co-operating causes. In chapter 6, I will consider each of these arguments in detail.

The Buddhist will also advocate for the analogous view of spatial parts, namely, that all that exist are atomic particles out of which we conventionally take spatially extended entities to be composed, while these extended entities themselves do not actually exist. For the purposes of the momentariness debate in ĀTV I.1, however, Udayana’s opponent is content to consider spatially extended things and their properties, with the goal of refuting only temporal extension. So I will follow him, in setting aside the problem of synchronic extension in space. For the accounts of exclusion offered by the Buddhist philosophers Jñānaśrimitra and Ratnakirti, see McCrea and Patil (2010) and Patil (2011), respectively. Later, in ĀTV I.4, Udayana considers, and refutes, this theory of conceptual construction via exclusion.
1.3 A Geneology of Momentariness Arguments

Historically, Buddhist philosophers in India have advanced a wide, and gradually evolving, variety of arguments in support of the momentariness thesis. Alexander von Rospatt helpfully begins by dividing the history of momentariness debates into two phases: an early phase, during which the debates took place primarily between various groups of Buddhists, and a later phase, where the debates were primarily between Buddhists who advanced the momentariness thesis and non-Buddhists who opposed it.⁹

The early, intra-Buddhist phase lasted up to and including Vasubandhu (5th c. AD). Here, the question of momentariness typically arose in the course of some other philosophical puzzle, such as debates over the possibility of motion of material bodies.¹⁰ Von Rospatt identifies four main varieties of arguments for momentariness during this period:

1. arguments for the momentariness of the mind (but not yet of other non-mental entities), from the denial of the self (ātman);

2. arguments for the momentariness of all causally conditioned things, from the momentariness of the mind;

3. arguments from change; and

4. arguments from the inevitability of destruction.¹¹

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¹¹Von Rospatt’s frequent statements to the effect that “three different kinds of proofs can be identified in the Yogācāra sources” (1995: 68) or that “there are basically three types of proof of momentariness” (1995: 153) should both be taken with two qualifications: First, the scope of the historical period under consideration must be limited to the early period of intra-Buddhist controversy. Second, within this period, the target to be proven must be universal momentariness (or at least, must include the momentariness of extra-mental entities). Von Rospatt’s three-fold enumeration thus includes items (2)–(4) from my list. For his discussion of each of the four varieties of argument which I mention during the intra-Buddhist period, see Von Rospatt 1995: 113ff., 122ff., 153ff., and 178ff., respectively.
All of these arguments take some form of the impermanence thesis as given, and proceed from that thesis to a conclusion about momentariness. That is, the possibility of anything (relevant to the argument) existing eternally without change is ruled out from the start.

The later period, from Vasubandhu through the last major Buddhist philosophers in India (Ratnakīrti and Mokṣākaragupta in the 11th and 12th centuries), can be distinguished from the earlier period in at least three ways. First, as noted above, Buddhist writings on momentariness shift from arguments ad intra to arguments ad extra, directed against philosophers of the various Brahmanical traditions. Second, momentariness becomes a topic of philosophical interest in its own right, as opposed to arising in connection to some other question. Dharmakīrti discusses momentariness inferences at some length, and his successors Dharmottara, Jñānaśrīmitra, and Ratnakīrti all compose entire treatises devoted to the topic. Finally, we find exactly two types of momentariness inference used by the Buddhists of this period for establishing momentariness: the inference from the inevitability of destruction, and a new inference from existence.

The latter inference first appears in the works of Dharmakīrti, and becomes increasingly prominent over the course of this period. The new inference from existence is intended to overcome a serious limitation of the older inferences, relative to the Brahmanical opponents against whom the momentariness arguments are now directed. The scope of the older inferences (including that from the inevitability of destruction) is limited to those things which are already acknowledged to be destroyed eventually, showing that whatever is destroyed at some time or other must in fact meet with its destruction at the very moment of its creation, which is to say, it

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¹²For this assumption in the inference from the inevitability of destruction (the vināśitvānumāna, item 4 above) as deployed in the later period, see Sakai (2011: 407).

¹³As Masamichi Sakai (2011: 407n2) explains, the former inference, the so-called vināśitvānumāna or “destruction-inference” is rather misleadingly named. Whereas the name of the second inference (the “existence-inference,” sa-ttvānumāna) is well-attested in the Sanskrit literature, and easily interpreted as a pañcamī (ablative) tatpurusa which names the inferential reason (hetu), the name of the first inference is largely the work of modern scholars, and does not directly mention the inferential reason. This compound is better analysed as a śaṣṭhi (genitive) tatpurusa, pratikṣanavināśitvasya anumānam “the inference of momentary destruction,” or, following Sakai, “the inference of the state of being destroyed at every moment.”
must be momentary. In an intra-Buddhist context, where neither party to the debate accepts the existence of eternal things, such an inference is sufficient for demonstrating universal momentariness. But the new opponents, like Udayana and his fellows in the Nyāya-Vaiśeṣīka tradition, take there to be some eternal things. Therefore, a new argument is required, in order to disprove the existence of eternal things, and show that everything that there is must be momentary. Still, the older argument from the inevitability of destruction continues to appear in various forms throughout this period, and Udayana refutes each of the two arguments separately in the first chapter of the ĀTV.¹⁴

2 The Inference from Existence

2.1 Buddhist Sources

2.1.1 Dharmakīrti

Dharmakīrti, who originates the inference from existence, offers a variety of inferential formulae employing existence as their inferential reason, throughout his extensive corpus. I first note in passing an inference which is mentioned briefly in the Nyāyabindu, in the course of classifying various inferential forms which employ reasons based on essential identity:

That which is exists is exclusively non-eternal (anitya), like a pot, etc.¹⁵

This inference is able to do precisely what the destruction inference cannot, and nothing more. Recall the three options for how an entity can exist, with regard to permanence and momentariness, which were introduced in section 1.1 above:

¹⁴The inference from existence appears first, as the topic of the first prakaraṇa (ĀTV I.1), and is discussed at much greater length. Udayana’s discussion of the inference involving destruction follows, in the second prakaraṇa (ĀTV L2).

¹⁵NB 3.9: yat sat, tat sarvam anityam, yathā ghṛtādir iti In his gloss on this passage, Dhammadāra rephrases the statement of pervasion to use the quantificational particle eva, thus: yat sat, tad anityam eva (NBṬ 88.30).
1. Permanent and (necessarily) non-momentary. X exists forever.

2. Impermanent, but also non-momentary. X exists for some finite, but extended, duration, after which it ceases to exist.

3. Momentary and (necessarily) impermanent. X exists for precisely a single instant of time.

With an appropriately selected locus (P), this inference will demonstrate that the class of eternal things (option 1 from the list) is empty, which entails that everything is either both non-eternal and non-momentary (i.e., persisting for a finite time, option 2 from the list) or momentary (option 3). The old inference from the inevitability of destruction can then be deployed to decide between these final two options, proving that the class of finitely persisting things (option 2) is likewise empty, and so everything is momentary.

While this argumentative strategy, using each of the two inferences to complete a different portion of the demonstration of universal momentariness, was certainly available to Dharmakirti, he does not pursue it in quite this form. As the texts stand, it is in the context of challenges to the pervasion in the old destruction inference where Dharmakirti first deploys an inference from existence. But in these inferences from existence, the target property (S) is not mere non-eternality (as in was in the Nyāyabindu), but momentariness itself. The first instance is in the chapter of the Pramāṇaviniścaya on inference for oneself (PVin II), where Dharmakirti summarizes the issue in this way:

That which has causal capacity with regard to purposeful action, that is ultimately existent, since non-existent, non-momentary things lack [causal capacity in] succession or non-succession.¹⁶

The passage from the Pramāṇaviniścaya, which culminates in this summary verse, is standardly accepted as the first use of the inference from existence to prove momentariness.¹⁷ As Dharma-

¹⁶PVin II 80.7–8 (k. 55): arthakriyāsamarthāṃ yat, tad atra paramārthasaśat | asatto ’kṣaṇikās tasyāṃ kramākramavirodhataḥ: ||
kīrti explains elsewhere, to exist just is to have causal capacity.¹⁸ So, “having causal capacity with regard to purposeful action” (arthakriyāsāmarthyam) turns out to be a straightforward gloss on “existence” (saṁvam). This becomes more clear in a subsequent work of Dharmakīrti, the Hetūbindu (HB). Two passages are particularly relevant. The first sets up the machinery for the inference, in a way which closely parallels the Pramāṇaviniścaya:

That which exists is exclusively momentary, because what is non-momentary is excluded from causal efficacy (arthakriya). And being a real entity (vastutva) is definitively characterized by this.¹⁹

The second passage states the positive and negative concomitance of the inference from existence, in the most clear and straightforward way:

The formal inferential statement of this is two-fold, by similarity and by dissimilarity. Just as there is [the statement of positive concomitance, namely]: “That which exists is exclusively momentary, like a pot, etc., and sound exists,” likewise there is [the statement of negative concomitance, namely]: “Where there is the absence of momentariness, there is the absence of existence, and sound exists.” Thus, by positive and negative concomitance, there are the two formal statements by similarity and dissimilarity, marked by the apprehension of the pervasion relation.²⁰

These three passages (one from PVin II, and two from HB), taken together, allow us to construct a complete formal inference. In the first two passages, Dharmakīrti provides only various statements of the general pervasion relation, which is said to obtain between existence, defined

¹⁸cf. PVSV 149.27—150.2.
¹⁹HB 4*.6–7: yat sat, tat kṣaṇikam eva, aksanikatve ārthakriyāvirodhāt tallaṅkaṇam vastutvaṁ hiyate. This passage is fully attested in the surviving Sanskrit fragments.
²⁰HB 5*.18–22: tasyād vidiḥṣa prayogoḥ; sādhanmyena vaidharmyena <ca>, yathā yat sat tat sarvaṁ <kṣaṇikam> ya-thā hgaṭādayaḥ, saṁś ca śabda iti, tathā kṣaṇikatvābhāve sattvābhāvaḥ, <saṁś ca śabda ity anvayaavyatirekābhyaṁ> sarvopasaṅkāreṇa vyāptipraṇardāṅkāṣanau <sādhanmyavaidharmyaprayaṇau>. Angled brackets indicate Steinkellner’s reconstructions from the Tibetan.
in terms of causal capacity, and momentariness. Momentariness (the target property S) pervades existence so defined (the inferential reason H). These two passages do not, however, indicate a locus (P) for the inference. That comes only in the final passage (HB 5*.18–22), where Dharmakīrti twice offers a statement of the first triple condition, **pakṣadharmatā**, predicking the inferential reason of the locus: “and sound exists.” If we take Dharmakīrti at his word, then this inference does not prove *universal* momentariness, but rather proves only the momentariness of sound.²¹ Later Buddhist authors will employ the same pervasion relation—between existence and momentariness—in the service of a more general inference, by widening the locus P to include more than just sound.

### 2.1.2 Jñānaśrīmitra

Jñānaśrīmitra presents an inference from existence as the centerpiece of his treatise on momentariness. The treatise is divided into four chapters, of which the first three scrutinise the inference from existence with regard to each of the three triple conditions (**pakṣadharmatā**, anvaya, and vyatireka), respectively, while the fourth chapter considers a version of the older inference from the inevitability of destruction.

In the first of those chapters, he gives the formal statement of the inference from existence in this way:

That which exists is momentary, like a cloud. And these things (*bhāva*) exist.²²

This formal statement occurs in the opening verse of the treatise. Shortly thereafter, Jñānaśrī offers two possibilities for what “these things” should include. They are either (1) “all those things whose function is to bring about some specific satisfaction of a goal (*arthakriyā*), by means

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²¹Such a narrowly constrained inference would be useful against members of the Mīmāṃsā philosophical school, who take sound to resonate eternally in the ether.

²²JNA 1.8 (= Kyuma 1.4): *yat sat, tat kṣaṇikaṃ, yathā jaladharāḥ. santaś ca bhāvā ime.* (Thakur prints *tu* for *ca.*)
CHAPTER 5. THE INFEERENCE FROM EXISTENCE

of \textit{pramāṇa}—precisely these things have been made into the inferential locus,”²³ or (2) “all those things which are within the scope of perception, etc., (that is, within the scope of one of the epistemic instruments)—these are the inferential loci.”²⁴ On either interpretation, Jñānaśrīmitra has vastly expanded the contents of the inferential locus. Instead of the inference being merely about the momentariness of sound, as it was for Dharmakīrti, it is now about everything which can be an object of cognition or purposeful action—which is to say, everything that exists.

2.1.3 Ratnakīrti

Finally, we come to the pupil of Jñānaśrīmitra, Ratnakīrti, many of whose works closely parallel those of his teacher, insofar as they extensively quote Jñānaśrī, serving as abridgements to Jñānaśrī’s longer works or compendia of the philosophical topic. Yet this is not to say that Ratnakīrti slavishly follows his master in every respect; Ratnakīrti is undoubtedly an original thinker in his own right.

Where Jñānaśrīmitra devoted four chapters to proof of momentariness, Ratnakīrti offers only two, establishing momentariness on the basis of existence, by positive and negative concomitance, respectively.²⁵ In his statement of the inference from existence, Ratnakīrti offers yet another new interpretation of what the inferential locus \(P\) should be:

\begin{quote}
That which exists is momentary, like a pot. And these things (\textit{padārtha}) which have been made into the subject of debate exist.²⁶
\end{quote}

With this new locus, Ratnakīrti has a truly all-purpose inference, where the scope of the locus \(P\) will depend upon the opponent toward whom the inference is directed. That is, in dialogue

²³JNA 1.15–16 = Kyuma 2.3–4: \textit{ya evaite bhāvāḥ pramāṇasamadhitārthakriyāviśeṣayāpārāḥ, ta eva pakṣikṛtā.} I leave \textit{pramāṇa} untranslated for now, since this might be picking up on the Buddhists’ equivocation between \textit{pramāṇa} as epistemic instrument and as the cognition itself (i.e., the identification of the instrument with its fruit).

²⁴JNA 2.6 = Kyuma 3.4: \textit{atha veme pratyakṣādigocarāḥ sarve eva bhāvā dharṁināḥ.}

²⁵That is, Ratnakīrti’s two short works on momentariness thematically parallel the second and third chapters of Jñānaśrī’s treatise on the subject, while there are no direct parallels in Ratnakīrti to Jñānaśrī’s first and fourth chapters (on \textit{paksadharmatā} in the inference from existence, and on the destruction inference).

²⁶RNA 67.6: \textit{yat sat, tat kṣaṇikam, yathā ghaṭāḥ, santaś cāmi vivadāśpadibhūtāḥ padārthā iti.}
with someone (perhaps a Buddhist of a rival school, or an ignorant pupil of Ratnakīrti’s in the monastic university at Vikramaśila) who accepts that some things are momentary, but denies the thesis of universal momentariness, only those things which the rival takes to persist will be in the inferential locus P, while those things which both parties agree to be momentary will compose the similarity class SP, and positive concomitance pertaining to those things in SP will be quickly agreed to.

Against Udayana or one of his fellow Naiyāyikas, by contrast, every single thing that there is will be need to be included, at least initially, in the inferential locus P. Ratnakīrti’s primary challenge, in this dialectical context, will be to get at least one thing out of the locus P and into the similarity class SP, lest “existence” turn out to be an inconclusive (H3) pseudo-reason. That is, in order for this inference to function successfully, Ratnakīrti will need to demonstrate the momentariness of at least one particular thing, to his opponent’s satisfaction, by some means other than this very inference from existence. I will return to this problem in chapter 6.

2.1.4 Summary

Before moving on to Udayana’s discussion, I will briefly summarize the contributions of the three Buddhist philosophers, with regard to the historical evolution of the inference from existence. That evolution involves both (1) the increasing prominence of the inference from existence, as the older inference from the inevitability of destruction recedes to the background, and (2) the modification of the inferential locus, such that the inference becomes applicable in a wider variety of epistemic and dialectical contexts.

Dharmakīrti uses existence as an inferential reason (indeed, he is the first in the history of Indian Buddhist philosophy to do so), but only in service to the older inference from inevitable destruction. The locus of his inference from existence is narrowly circumscribed, such that the inference proves only the momentariness of sound.
Jñānaśrīmitra gives pride of place to the inference from existence, though the older inference is still discussed in the last of his four chapters on momentariness. In contrast to the narrow locus of Dharmakīrti’s version, Jñānaśrī expands the locus to include everything which has any causal functioning whatsoever—which for him just means everything that there is.

Finally, Ratnakīrti employs exclusively the inference from existence in his work on momentariness. He adjusts the formulation of the inferential locus to be context-relative: all those things about which there is controversy, with regard to their momentariness or persistence.

### 2.2 The Inference from Existence in the Ātmatattvaviveka

In the Ātmatattvaviveka, Udayana’s Buddhist opponent states the inference from existence, for proving the momentariness of all things, in this way:

> Whatever is existent is momentary, like a pot. And these things which are the subject of debate—sound and the like—are existent.²⁷

In order to be a genuine source of knowledge, the Buddhist’s inference from existence must have the appropriate standard form, and when expressed in that form, must have a genuine inferential reason (rather than one of the three recognised varieties of pseudo-reason, *hetvā-bhāsa*). That standard inferential form, as we have seen, has five components: the target property to be proven (*sādhya*, S), the inferential reason (*hetu*, H), the inferential locus (*pakṣa*, P), an appropriately-exampled similarity class SP (*sapakṣa*), and an appropriately-exampled dissimilarity class VP (*vipakṣa*).

Here, the first two components—the two properties—are easily identified. The target property S is momentariness, and the inferential reason H is existence. As we saw in chapter 2, the three

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²⁷ĀTV 22.18–19: *yat sat tat kṣaṇikam yathā ghaṭaḥ saṃś ca vivādāhyāsitaḥ śabdādhir*. Udayana’s proximate source for this formulation is most likely Vācaspati Miśra, whose *Tātparyaṭīkā* (NVT) Udayana knew and wrote a commentary on. The only difference between the two formal statements (*prayoga*) of the inference is Vācaspati’s inclusion of the adverb *sarvam*, following Dharmakīrti’s usage. (So, NVT 838.11: *yat sat, tat sarvam kṣaṇikam, yathā ghaṭaḥ; saṃś ca vivādāhyāsitaḥ śabdādhir*.)
groups of property-possessors $P$, $SP$, and $VP$ are defined in terms of the epistemic status of the two parties to the debate with regard to the target property $S$, prior to performing the inference. That means that in this case, $SP$ should include all and only those loci which Udayana and his Buddhist opponent agree to be momentary, while $VP$ should include all and only those loci which they agree to be non-momentary. And as the Buddhist explicitly states, the locus of the inference, $P$, is to include all those things whose momentariness is the subject of controversy between himself and Udayana. The trouble, as Udayana quickly observes, is that everything seems to belong to $P$, leaving $SP$ and $VP$ both empty. That is, the Buddhist takes it that everything is momentary, while Udayana does not acknowledge anything at all to be momentary. Everything which exists “has become the topic of debate,” and is included in $P$.

By the Buddhist’s own lights, the inference will be successful if and only if the inferential reason satisfies all three of the triple conditions: being a property of the locus, positive concomitance, and negative concomitance. As we saw earlier, all three of these conditions are concerned with the relation of the various property-possessors to the inferential reason $H$, “existence.” The Buddhist must be able to show:

$T_1$ that all members of $P$ exist,

$T_2$ that some member(s) of $SP$ exist, and

$T_3$ that all members of $VP$ do not exist.

Since $P$, $SP$, and $VP$ are defined relative to momentariness and persistence, the conditions may be understood as:

$T_1$ All those things whose momentariness is doubtful, have the property “existence.”

$T_2$ Some things (and at least one in particular) which we know to be momentary, have the property “existence.”

$T_3$ All things (and at least one in particular) which we know to be persistent, lack the property “existence.”
### Table 5.1: Elements of the Inference from Existence

<table>
<thead>
<tr>
<th>Element Properties</th>
<th>Definition</th>
<th>Stock Example</th>
<th>Inference from Existence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong> Target Property</td>
<td>the property which is to be established, as a result of the inference</td>
<td>fire</td>
<td>momentariness</td>
</tr>
<tr>
<td><strong>H</strong> Reason Property</td>
<td>the property on the basis of which the target property is established</td>
<td>smoke</td>
<td>existence</td>
</tr>
<tr>
<td><strong>P</strong> Site of the Inference</td>
<td>locus/loci where the presence of S is doubtful</td>
<td>mountain</td>
<td>“all these things about which there is debate”</td>
</tr>
<tr>
<td><strong>SP</strong> Similarity Class</td>
<td>loci where S is known to be present</td>
<td>kitchen hearth, lump of red-hot iron, &amp;c.</td>
<td>[a seed, at each moment of time]</td>
</tr>
<tr>
<td><strong>VP</strong> Dissimilarity Class</td>
<td>loci where S is known to be absent</td>
<td>lake, &amp;c.</td>
<td>non-entities (the hare’s horn, the son of a barren woman, &amp;c.)</td>
</tr>
</tbody>
</table>

### Conditions on the Reason

| T1 Being a Property of the Site | H is present throughout P. | There is smoke on the mountain. | The subjects of our debate exist. |
| T2 Positive Concomitance | H is present in (at least some of) SP. | Some fire-possessors (such as the kitchen hearth) possess smoke. | Some existing things (such as a seed at the moment it produces a sprout) are momentary. |
| T3 Negative Concomitance | H is entirely absent from VP. | Everything which lacks fire (such as the lake) also lacks smoke. | Every non-existent thing (such as the son of a barren woman) is non-momentary. |
Furthermore, as the second list of the triple conditions indicates, in the course of demonstrating T2 and T3, the Buddhist must be able to adduce at least one similar example (*sādharmyadṛṣṭānta*)—a particular member of SP which is known to possess the property “existence”—and at least one dissimilar example (*vaidharmyadṛṣṭānta*)—a particular member of VP which is known to lack the property “existence.” By his silence on the issue, Udayana grants the rather trivial condition T1.²⁸ Udayana structures his critique of the inference from existence around T2 and T3.

In chapter 6, I will consider Udayana’s refutation of the positive concomitance (*anvaya*), “That which is existent is momentary” (*yat sat, tat kṣaṇikam*). This material occupies ĀTV 22—167, which I will call the Anvaya Section. Here, the Buddhist objector’s burden will be to prove, of some particular existing thing, that it is momentary, and to accomplish this proof by some means other than the inference from existence. Only in this way will T2 be satisfied, allowing the inference from existence to proceed.

In chapter 7, I examine Udayana’s refutation of the negative concomitance (*vyatireka*), “That which is not momentary is not existent, like a hare’s horn” (*yan na kṣaṇikam, tan na sat, yathā śaśaviṣāṇam*). This appears in ĀTV 167—220, which I will call the Vyatireka Section. Here, the Buddhist objector must find a way of cognising, and talking about, the non-existent things which make up the dissimilarity class VP. Not only must he prove the general principle that whatever is non-momentary is also non-existent, but he must also demonstrate the persistence (i.e., the non-momentariness) of some particular non-existing thing. Only by such a demonstration will T3 be satisfied.

Before moving on to examine Udayana’s two refutations, we should take careful note of the epistemic burdens in this dialectic. As we saw in the exposition of the Buddhist theory of inference in chapter 3, Buddhist epistemologists in India were unanimous in requiring that all three

²⁸T1 is trivial in regard to this particular inference, only because the property “existence” is so unobjectionable. This first of the triple conditions may, in the context of other inferences, turn out to satisfied only after substantial philosophical work.
of the triple conditions be satisfied, in order for an inference to be genuine.²⁹ So, if Udayana can demonstrate that the putative inference lacks either positive concomitance or negative concomitance (regardless of the status of the other of these two), then the Buddhists’ requirements have not been met. By the Buddhist’s own lights, then, Udayana has won the debate, and refuted the inference from existence, if the arguments in either one of the Anvaya Section or the Vyatireka Section are successful. So, from this perspective, both sections are not strictly necessary.

As we saw in chapter 4, however, the Naiyāyikas were happy to accept inferences in which either positive or negative concomitance is lacking, provided that the corresponding group of property-bearers (i.e., SP or VP, respectively) is empty, and that the remaining four of their five conditions on the reason are satisfied. So, from his own standpoint, it will be necessary for Udayana to give at least some consideration to both positive and negative concomitance.

²⁹I set aside any complications which might arise from Ratnākaraśānti’s theory of “internal pervasion” (antarvṛtya-ṃpti), for which, see Kajiyama 1999.
Chapter 6

Positive Concomitance in the Inference from Existence

In the previous chapter, I briefly presented the two major problems faced by the Buddhist, in his defense of the inference from existence: the need to demonstrate positive concomitance (a-nvaya) between existence and momentariness, as manifest in some particular locus (that is, to show that both of these properties are possessed by some particular momentary existent); and to demonstrate negative concomitance (vyatireka) between non-momentariness and non-existence, again manifest in some particular locus. In the first chapter of the ĀTV, Udayana considers each of these problems separately, in what I refer to as the Anvaya Section (ĀTV 22–167) and the Vyatireka Section (ĀTV 167–220), respectively.

In this chapter, I will examine the Anvaya Section. In section 1, I offer an overview of the entire Anvaya Section, including a non-technical account of the general strategy employed by the Buddhist for establishing positive concomitance. In section 2, I provide a much more technical evaluation of that method, from the perspective of epistemology and dialectical method. Drawing on various works of the Buddhists themselves, I explain how the method works, rela-
tive to classical Indian theories of inference. And by examining Udayana’s own arguments from the Anvaya Section in section 3 of this chapter, I show that Udayana has no reason to object to the method as such, as he himself realises.

With the topics in epistemology thus dealt with, I proceed in section 4 to deal directly with the metaphysics of causality and property opposition. Here, I present Udayana’s account of causal capacity, including the role of cooperating causes in explaining why effects arise at some times but not others. I also address the need for certain properties, like “being a causal instrument,” to be indexed to particular moments in time.

1 Overview of the Buddhist’s General Strategies

1.1 A Non-Technical Version of the Reductio Argument

In broad terms, the general strategy employed by Udayana’s Buddhist opponent for demonstrating positive concomitance in the inference from existence, is as follows. He begins with some object—most commonly a seed—whose existence Udayana is happy to acknowledge. He then attempts to show that this object (ostensibly a single thing persisting through time) possesses mutually incompatible properties at different times in its existence. A seed, for instance, is the cause of a sprout when planted in moist soil, in the presence of sufficient heat and other nutrients, etc. That seed is not, however, the cause of a sprout when it is stored safely in the granary. Yet it is absurd, the Buddhist argues, for a single thing to possess both the property “being the cause” and the property “not being the cause,” so we must instead have two different things: a seed-in-the-granary, and a seed-in-the-field, each of which exists for a more limited period of time, as compared to the single persisting seed posited by the realist.

At this point, the Buddhist still does not have a momentary thing; both the field-seed and the granary-seed seem to persist, at least for a little while. But a similar style of argument can be
repeatedly applied, to break down, say, the field-seed into smaller and smaller temporal slices, until eventually we are left with something which exists only for one moment. We will be left with a picture something like this: At the very final moment, $t_0$, we have a seed which immediately gives rise to a sprout. At the moment before that, $t_{-1}$, we have something planted in the dirt which does not immediately give rise to a sprout, but which does generate the sort of thing—the final seed-moment—which does have the capacity to give rise to a sprout. The entity which exists just before that, at $t_{-2}$, however, cannot even produce a successor which produces sprouts—though the successor of its successor will produce a sprout-producer. And so on. At every moment, there is a distinct entity, with its own unique set of causal capacities. And as we have seen earlier, for the Buddhist, to exist just is to stand in some particular set of cause and effect relations. In section 2 below, I will examine in more detail exactly how the Buddhist integrates this method of argument by reductio into the framework of inference and the epistemic instruments.

At this point, we might wonder why the Buddhist needs the inference from existence at all. Why can’t he simply apply something like the above reductio over and over, as necessary, to show that every existing thing must be momentary? The most obvious problem with such a strategy is one of computability. If the thesis of universal momentariness is correct, then at each instant, there are uncountably many unique particulars coming in and out of existence. The Buddhist could never run all of the reductio arguments fast enough to keep up with this flow of objects, and demonstrate that every one of them is momentary. For the task of showing universal momentariness—as opposed to merely the momentariness of any one thing—the inference from existence, or some other similarly generic argument, is necessary. The reductio argument from property opposition serves merely to supply the required similar example for the larger inference, filling in the similarity class $SP$ with one thing which is known to be both existent and momentary.
1.2 Three Pairs of Opposed Properties

In the course of the Anvaya Section, Udayana’s Buddhist opponent suggests three different pairs of opposed properties which might be used in this reductio:

1. the properties of causal capacity (sāmarthya) with regard to the production of some effect, and non-capacity (asāmarthya) with regard to that same effect;

2. the properties of being a causal instrument (karaṇatva), and not being a causal instrument (akaraṇatva); and

3. the properties of relation (sambandha) and non-relation (asambandha) to the cooperating causes.¹

These three sets of properties provide the surface structure of the Anvaya Section, in that capacity and non-capacity are discussed first, from ĀTV 34 to ĀTV 114. At ĀTV 115, the objector concedes defeat in the debate over capacity, and proposes the properties instrumentality and non-instrumentality as alternatives, which Udayana examines until ĀTV 156. Likewise at ĀTV 157, the objector concedes the argument over the second pair of properties to Udayana, before making his final proposal, of relation and non-relation to the cooperating causes.

It is not by chance that all three of these pairs of properties have to do with causal powers or relations. For the Buddhist, causal relations uniquely get at what something is; to list all of the causes and effects of a given entity just is to give a complete and perfect account of that thing. By demonstrating two incompatible causal properties, we demonstrate that there must be two things, one with each property. Dharmakīrti explains the principle clearly:

Indeed, the mixing up of opposed properties and a difference in the cause [of something], just is difference, or the cause for knowing difference. Indeed, if there were

¹In the case of the seed, which is the primary cause of a sprout, the cooperating causes would include soil, warmth, appropriate nutrients, etc.
not difference in such a case, then there would be just one single substance everywhere, which we would describe thus: “There is no difference of anything, in any way.” And there would be the co-arising and co-destruction of everything, and the employment [of anything] in all circumstances.²

That is, because, say, seeds and rocks have different causal properties, we employ them differently, by planting the former in the ground to grow crops, but not the latter. This behavior, Dharmakirti claims, would be inexplicable without recourse to his principle of difference.

As an historical matter, it was the first of the three pairs of properties discussed by Udayana—capacity and non-capacity—which were employed by Jñānaśrīmitra in his defense of the inference from existence.³

From Udayana’s perspective, the inclusion of these three pairs of properties, in exactly this order, is deliberate and revealing, in that each pair behaves differently, and helps to elucidate something different about Udayana’s metaphysics. Udayana responds to the first pair of properties, capacity and non-capacity, by giving an account on which causal capacities (sāmathya) do not change. A seed always has the capacity to produce a sprout, whether that seed is in the granary or the field. The production of a sprout in the latter circumstance, but not the former, is explained by something external to the seed itself: the presence or absence of cooperating causes. The seed itself, meanwhile, does not change. So Udayana can accept the principle that a difference in capacity or lack of capacity requires a different entity as the possessor of that (lack of) capacity. That is, he agrees that the properties capacity and non-capacity are opposed in the relevant sense: nothing can possibly possess both capacity and non-capacity for the same effect.

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²PVin II, 89.15–90.3 (cp. PVSV 20.21–24): _āyaṃ hi bheda bhedahetur vā bhāvānāṃ yad uta viruddhadharmādhyāsaḥ kāraṇabhedaś ca_ | _tataḥ cen na bhedasiddhiḥ na kasyacit kutascid bheda ity ekam dravyam viśvam syāt_ | _tataḥ sahotpattivināśau sarvasya ca sarvatropayogāḥ syāt._
³His pupil Ratnakirti takes an alternative approach, perhaps in response to Udayana. The exposition of Ratnakirti’s method is in section 2.2 below. I consider this approach specifically as a response to Udayana in section 3.1.
But he denies that any of the Buddhist’s examples (the sprout, etc.) actually manifest both of these properties through a change in their capacities.

The second pair of properties, instrumentality and non-instrumentality, behave differently. Here, the seed only possesses instrumentality with regard to a sprout when the totality of cooperating causes is present. So unlike the first pair of properties, which were genuinely opposed, here Udayana denies that the properties are opposed in the relevant sense. That is, a thing can persist through a change in these properties of “being an instrument” and its negation, provided that these properties are discussed in a loose and imprecise way. When we speak more precisely, Udayana will insist on a temporal index for these properties, such that the apparent opposition evaporates. On this more precise account, nothing is ever merely an instrument without qualification; something is only an “instrument-at-t.”

The third pair of properties, relation and non-relation with the cooperating causes, are discussed in large part for completeness, in the sense of answering an obvious objection to Udayana’s view. The key to understanding both causal capacity and instrumentality has been Udayana’s appeal to the presence or absence of the cooperating causes at different times. We might very well attempt to distinguish between seed-moments based on the field seed being related to the cooperating causes and the granary seed lacking such a relation. Yet such presence or absence changes nothing about the seed itself.

1.3 How Can Properties Be Opposed?

As the discussion in the ĀTV shifts from a direct consideration of the opposed properties “being capacious” (sāmarthya) and its negation, to consideration of the opposed properties instrumentality (karaṇatva) and non-instrumentality at ĀTV 115, it finally becomes necessary to clarify what exactly Udayana means by “opposed properties.” This discussion appears at this late point in the text because, as we saw above, capacity and non-capacity could never be had, with regard
to the same effect, by a single entity, and so the question of whether or not they are relevantly opposed never arises. Instrumentality and its negation, by contrast, can each be had by a single persisting thing, at different times. We must therefore understand property opposition, in order to see whether this change from non-instrumentality to instrumentality (or vice versa) is actually a problem for the persistence theorist, as the objector claims. The easiest way to approach this topic is to begin with a passage from Udayana’s other major work, the NKA.

Beginning at NKA 371.5, the speaker is an ekadeśin (that is, someone who holds part, but only part, of the correct view on a topic) and a member of the Vaiśeṣika philosophical tradition. Here, the Vaiśeṣika, who acknowledges only perception and inference as epistemic instruments, is expressing a criticism of the Naiyāyikas’ and Mīmāṁsakas’ third epistemic instrument, analogy (upamāna). Because analogy is not a means of knowledge at all, the Vaiśeṣika claims, it cannot disprove the existence of God (Īśvara). In the course of this criticism, the Vaiśeṣika offers an account of opposition (virodha). After a lengthy exchange, in which a Mīmāṁsaka objects to the Vaiśeṣika, Udayana ultimately settles the issue with an argument in favor of analogy as an instrument of knowledge, which nonetheless does not disprove the existence of God. Since Udayana’s refutation of the Vaiśeṣika focuses only on the legitimacy of analogy as epistemic instrument, and leaves the Vaiśeṣika’s account of opposition untouched, the exchange is a worthwhile place to begin, for understanding Udayana’s own account of opposition, as informed by the Vaiśeṣika tradition.

In a summary verse, the Vaiśeṣika ekadeśin introduces some of his main themes:

When there is mutual opposition, there is no ground for another alternative. Moreover, there is not the oneness of opposed things, since there is opposition in the very force of the words.⁴

⁴NKA 372.1–2 (k. III.8): parasparavirodhe hi na prakārāntarasthitiḥ | naikatāpi viruddhānām uktimātravirodhataḥ ||
In the prose passage which immediately follows, the Vaiśeṣika begins by providing a clear example of a case where there is no room for a third alternative:

Indeed, there can be no alternative other than positive being (bhāva) and absence (abhāva), since they are characterised by mutual affirmation and denial. By the mere denial of positive being—such as, “it is not a positive being”—there is the affirmation of absence.⁵

“Positive being” (bhāva) and “absence” (abhāva) are technical terms used in Vaiśeṣika ontology—the ontology which Udayana himself accepts and utilises throughout his works. The primary division of real entities (vastu) is between positive beings and absences.⁶ Positive beings include the six ontological categories of substances, qualities, motions, universals, individuators (something like haecceities), and inherence (the relation which connects entities of the other five categories to each other). Absences, meanwhile, always have some particular positive being as their absentee (pratiyogin): the absence of a pot, or the absence of blue color, etc.⁷ The key point is that every real entity can be classified under exactly one of these two heads. So it is impossible to deny that some thing X is an absence, without being committed to the affirmation that it is a positive being. The denial of the one just is the affirmation of the other. This claim is stronger than its inverse, where we simply say that the affirmation of the one entails the denial of the other. To see this, consider properties which are not opposed in the relevant strong sense, such as being blue all over and being red all over. If I affirm that something is blue all over, then I am committed to its not being red all over, but if I deny that it is blue, I am not thereby committed

⁵NKA 372.3–4: na hi bhāvābhāvābhāvyām anyāḥ prakāraḥ sambhāvaniyāḥ, parasparavidhiniśedharūpatvāt | na bhāva iti bhāvanaiśedhamātrenaivabhāvavidhiḥ.

⁶I discuss the ontology of positive beings and absences at greater length in section 2 of chapter 7. See also Tachikawa (1981), for a treatment based closely on Udayana’s views, and including translations of some of the relevant primary texts.

⁷While the Vaiśeṣikas acknowledge a variety of higher-order absences, whose immediate absentee is another absence, these chains are finitely long (generally being confined to, at most, three levels, e.g., “the absence of the absence of the absence of some positive being X”), and always begin with a first-order absence whose absentee is a positive being.
to its redness. It might be some third color, maybe yellow or white. The opposition between positive beings and absences is unlike this, in that there is no possibility of a third alternative. Built into the concept of an absence—or, in Udayana’s terms here, built into “the very force of the word” (uktimātra)—is the notion of being whatever is other than a positive being. So it does not merely turn out that there is no third alternative; it is analytic, built into the concepts themselves. The Vaiśeṣika speaker can therefore conclude,

So, the oneness of things like this is impossible to suppose, because of the impossibility of denial and affirmation in one place. Therefore, positive being and absence are like this (i.e., opposed).⁸

The Vaiśeṣika also suggests several other pairs of properties which are mutually opposed in the relevant, strong sense. Positive beings, for instance, can be exhaustively divided into those which possess qualities (gunavat) and those which are without qualities (nirguna).⁹ In the Sanskrit, this pair helpfully illustrates the fact that one term need not be written as the direct negation or privation of the other for their meanings to be opposed in the appropriate way.¹⁰

Returning to the ĀTV, after accepting that we do not find the properties capacity and non-capacity together in any kind of things (i.e., that any class of thing is either always capable or always incapable in regard to bringing about any particular effect), the Buddhist objector shifts the focus to instrumentality and non-instrumentality, as opposed properties which might be co-located in a single locus. We then find Udayana offering three possible interpretations for the way in which instrumentality and non-instrumentality could be related to each other.

Objector: Let it be so. Let there not be the co-existence of the opposed properties capacity and non-capacity. Let seedhood alone be the impeller [of a sprout].

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⁸NKA 372.6–7: ata evambhūtānām ekatāpy aśakyapratipattiḥ | pratiṣedhavidhyor ekatrasambhavāt | tasmād bhāvabhāva eva tattvam.

⁹NKA 372.8.

¹⁰Though my translation as "positive being” and “absence” did not capture this, the a-prative in abhāva provided such an explicit direct negation.
Or, when there is the assemblage of co-operating causes, let a thing possess the nature of an agent. And thus, its not being an instrument should be accepted when there is the non-assemblage of these [co-operating causes]. And furthermore, this is settled merely in regard to being of that class (jāti), and not in regard to a single individual (vyakti), since the co-presence of the opposed properties “instrument” and “non-instrument” is established by perception, and since it is therefore irrefutable.

Reply: No. Because of the non-ascertainment of natures which are opposed. Indeed, these two properties would either (1) have the nature of mutual absence, like eternity and non-eternity; or (2) bring about that result in a property-possessor, like cold and heat; or (3) have mere mutual difference, like “being a staff-bearer” and “being an earring-wearer.”¹¹

We may follow Udayana in quickly dismissing the third of these options. If difference in this way is enough to make properties opposed, then even properties which always occur together, such as “being a product” and “being non-eternal” would be opposed in the strict sense, merely on account of this trivial mutual difference.¹² This would lead to all manner of absurdities. We have, then, two usages of “opposed.” First, there is the strong sense, as described by the Vaiśeṣika ekadeśin in the NKA, which is necessarily indicative of an essential difference between two things. There is also the weak sense, as mentioned in this third option, where properties opposed in this way are not incompatible, since both can be possessed by a single property-bearer. The Buddhist needs his properties to be opposed in the strong sense, in order to demonstrate the momentariness of some entity as the similar example in the inference from existence.

¹¹ĀTV 115–117: syād etat | mā bhūt sāmarthyāsāmarthyalakṣanaṇaṇaṇaṃ naṃ karaṇaṃ api upapadyatām tathāpi tajjātiyamātra eveyaṃ vyavasthā na tv ekasyāṃ vyaktau karaṇākaraṇalakṣanaṇaṇaṇaṃ dvāraḥ dharmoḥ parasparābhāvarūpavatvam vā syān nityatvānityatvatvam, dharmīṇi tadāpādakatvam vā sītoṣṇatvatvam, tadvattā vā daṇḍitvakupārāyati.

¹²ĀTV 156.15–16.
It is the first two options in this list from ĀTV 117, quoted just above, which relate to the account of strict opposition from the NKA. As in the NKA passage, Udayana’s discussion of the first and second options in the ĀTV quickly turn to absences (abhāva). In the first case, two things with opposed natures each possess the mutual absence (parasparābhāva, that is, anyonyābhāva) of the other. In the second case, such an opposition is to be brought about in a third thing.

Joy Laine tries to distinguish the two options in the following way. Properties which are opposed in the first way, as eternality and non-eternality, are to be characterised as “mutually exclusive irrespective of time, since if an object is eternal then that rules out for all times the possibility of that same object becoming non-eternal.”¹³ Properties opposed in the second way, as hot and cold, however, are only supposed to be “mutually exclusive with regard to a specific time and place.”¹⁴ Such characterisations indeed capture something about Udayana’s two sets of examples, but are incomplete, when considered in light of Udayana’s basic ontology.

Eternality and non-eternality characterise various substances directly: atomic substances (atoms of earth, air, fire, and water; as well as the mind, which is of atomic size) are eternal, as are the special omnipresent substances like the self (ātman), while composite medium-sized substances (pots and the like, which are composed out of the atoms) exist for a finite, limited duration. In all of these cases, the substance is either eternal or non-eternal by its own nature. In contrast, heat and cold become properties of composite substances in virtue of the elements which compose those extended things. For the Vaiśeṣika, water is the only locus of cold touch, while fire is uniquely the locus of hot touch.¹⁵ So, if a composite substance becomes hot, this is due to the addition of some fire atoms. If we consider a pot filled with water, the large perceivable mass of water will be cold by its own nature, insofar as only atomic water is present, but will feel warm when fire atoms are mixed in due to a heating process. The presence of the

fire atoms thus “brings about opposition as a result” in the larger extended whole, causing the extended substance, which was naturally cold, to become hot. These sorts of oppositions make the best candidate for understanding Udayana’s second variety of opposition.

### 1.4 The “Prasaṅga and Viparyaya” Method

The Buddhist objector in the ĀTV sets out his plan for demonstrating positive concomitance in response to a series of Udayana’s objections, immediately after he has stated the inference. The exchange proceeds in this way:

Buddhist: That which exists is momentary, like a pot. And this which is presently under debate, sound and the like, exists.

Udayana: No. Because pervasion is not established.

Buddhist: When there is the establishment of difference through the mixing-up of the opposed properties “capacity” and non-capacity, then there is establishment of that [pervasion].

Udayana: No, since the mixing-up of opposed properties is not established.

Buddhist: It is established by *prasāṅga* and its contraposition (*viparyaya*).

Udayana: No. Indeed, capacity means either “being a causal instrument” or “fitness.” And it is not the first of these...¹⁶

Here, in his first statement, the Buddhist simply states the inference from existence, which I presented in the previous chapter, in the standard form (*prayoga*). Responding to the need to demonstrate the pervasion of existence by momentariness, the Buddhist offers the reductio strategy described in section 1.2 above: the pervasion is established by showing that opposed

¹⁶ĀTV 22.18–34.4: *yat sat tat kṣaṇikaṃ yathā ghaṭaḥ samś ca vivādādhyāsitaḥ sabdādhir iti cet, na pratibandhāsiddheḥ | sāmarthyāsāmarthyalakṣaṇaviruddhadharmasāṃsargena bhedaḥsiddhau tatsiddhir iti cet | na, viruddhadharmasāṃsargāsiddheḥ | prasaṅgaviparyayābhhyāṃ tatsiddhir iti cet | na, sāmarthyaṃ hi karaṇatvaṃ vā, yogyatā vā | nādyah...
properties are found together, or “mixed up” (adhyāsa) in what is ostensibly a single existing locus. Finally, in the third exchange, the objector introduces the formal method by which this mixing-up of opposed properties is to be known—known, that is, in the classical Indian sense of an occurrent awareness brought about by an appropriate causal process. “Prasaṅga and its contraposition (viparyaya)” are supposed to be that causal process.

Udayana’s final reply in this exchange is, at least initially, less than helpful for understanding the objector’s claim. How are “prasaṅga and its contraposition” supposed to establish the mixing-up of opposed properties? Put another way, to what, exactly, is Udayana responding here? Understanding how Jñānaśrīmitra and other historical Buddhists deployed “prasaṅga and its contraposition” will help to make sense of this argumentative move.

2 Prasaṅga and its Contraposition in Buddhist Philosophy

The term “prasaṅga” is often used in a very generic way by Indian philosophers to mean simply any undesirable consequence. This usage is common to Buddhist and non-Buddhist thinkers; Udayana himself uses the term in this way in countless places in the ĀTV. But a mere unwelcome consequence does not in any obvious way have a contraposition (viparyaya). As used here, prasaṅga refers to a very specific pattern of reasoning, one which, among other features, can be meaningfully contraposed. Mokṣākaragupta provides a helpful starting point for understanding this use of prasaṅga:

It was said before that the pervasion of existence by momentariness is to be grasped by prasaṅga and the contraposition of the prasaṅga. What is meant here by prasaṅga? Prasaṅga is reasoning to a conclusion which is undesirable to the opponent, by means
of a statement grounded in a pervasion [relation] which has been well-established by
the epistemic instruments.¹⁷

As Mokṣākaragupta indicates, the prasaṅga method was elaborated by the later Buddhists
because of the unique needs of the inference from existence.¹⁸ A prasaṅga resembles an ordinary
inference in being based upon the relation of pervasion between two properties. As in the infer-
cential usage, this pervasion must be well-established, including being agreed to by both parties
in a debate, antecedently to its application in the prasaṅga. The prasaṅga will possess the same
surface structure as a genuine inference, in having two properties (reason and target) as well as
three groups of property-bearers, defined relative to that target property.¹⁹

Yet the prasaṅga is not a genuine inference (anumāna). As an epistemic instrument, a genuine
inference is necessarily generative of knowledge, specifically an occurrent veridical awareness of
the target property as present in the inferential locus. In order for such an awareness to be an
instance of knowledge, it must actually be the case that the reason property is present in the
locus. Likewise, in the verbal expression of such an inference in the context of debate—that
is, in an inference for others (parārthānumāna)—the speaker must already know, and accept, the
presence of the reason in the locus. In a prasaṅga, by contrast, the presence of the reason property
in the locus is merely presumed for the sake of argument; the reason does not genuinely belong to
that locus. The awareness which results from prasaṅga, therefore, cannot be veridical, and is not
taken to be true by the Buddhist speaker who puts forth the prasaṅga.²⁰ This style of reasoning is


¹⁸For the early history of reasoning by prasaṅga, see Kajiyama (1999: 18–19).

¹⁹By this point, the attentive reader may have noticed the similarities of the Buddhists’ prasaṅga to the Naiyāyikas’
concept of tarka, which was discussed in chapter 4. Kajiyama (1999: 20), among others, notes the connection in
passing. I will return to this in section 3.3 below.

²⁰Kajiyama (1999: 20) articulates both of these differences, when he states that in a prasaṅga, paksadharmanā is
“not a fact, but a hypothesis, or the opponent’s opinion which you do not believe yourself,” and that “the conclusion
is always false knowledge [sic],” by which he means a cognition (jñāna) which is false, and therefore is not knowledge
(pramā) at all.
meant to suggest that a single locus possesses two incompatible properties P and not-P, ultimately leading to rejection of the locus as a unitary entity. So the two awareness events involved—the awareness of the locus having P and the awareness of the locus having not-P—cannot both be instances of knowledge. A prasaṅga, therefore, merely resembles an inference, without actually being one.

Once we have this quasi-inferential structure to the prasaṅga, it is readily apparent how the “contraposition of the prasaṅga” (prasaṅgaviparyaya) can be generated. We swap the reason and target properties, and negate both. We then reconstruct the three groups of property-bearers, according to the new target property. In order for the Buddhist to have a meaningful pair of arguments, which together indicate that a single locus possesses a pair of incompatible properties, it will be necessary to use the same inferential locus (P) in both the prasaṅga and its contraposition. All those property-bearers outside the locus will then be sorted into the similarity class SP or the dissimilarity class VP as appropriate in each case. It will turn out, in all the cases under consideration, that the resulting contraposed formulation is a genuine inference.

At this point, actual examples will help to make all of this more concrete. I will examine four instances of prasaṅga and its contraposition from late Indian Buddhist authors, all offered in service of the inference from existence: two prasaṅga-viparyaya pairs from Jñānaśrīmitra, and one each from Ratnakīrti and Mokṣākaragupta. Tables 6.1 and 6.2 may help to organise the discussions of the prasaṅga and its contraposition, respectively.

2.1 Jñānaśrīmitra

Jñānaśrīmitra first offers the following formal statement (prayoga) of the prasaṅga:

That thing x which, at time t, has the capacity for producing y, necessarily produces y at t; such as the final complete collection of causes produces its own [proper] effect.
One and the same raincloud has the capacity for producing its own effect—joy in the eyes of a farmer, etc.—when it is holding water, or it is able of producing that same effect, at the time when it has [already] given up its water. And there is the power to bring about both effects at both times.

Thus, a prasaṅga which uses an identity-reason.²¹

Here, as expected, we have two properties explicitly stated: the reason property “having capacity, at a certain time, to produce a certain effect,” and the target property “necessarily producing that effect at that time.” Since the prasaṅga so closely resembles an inference, Jñānaśrī even classifies the reason property as an identity-reason (svabhāvahetu), according to Dharmakīrti’s method of identifying the three legitimate types of reason properties. As an illustrative member of the similarity class SP, Jñānaśrī simply mentions the complete final causal complex which gives rise to an effect. We could supply a more precise illustration on his behalf. The complete causal complex for the effect of producing a sprout would include all those causal factors which are present in the moment just before the sprout arises: a seed of the appropriate kind, soil, water, warmth, and the like.

Finally, Jñānaśrī’s prasaṅga is applied to a raincloud, to demonstrate that what the realist might have taken to be a single, persisting cloud is actually a series of distinct cloud-moments, each with distinct and incompatible properties. Jñānaśrī has chosen his example well, in that the constantly changing raincloud is much more plausibly divided into distinct temporal parts, as compared with a seed or a pot (both of which appear elsewhere in the literature). The raincloud which has the capacity for a certain effect, Jñānaśrī claims, will necessarily produce that effect. Interestingly, the effect is not, as we might expect, “producing rain.” Rather, certain raincloud-moments—namely, those where the cloud is filled with water—produce joy in the eyes of a farmer.

²¹JNA 17.10–13: yad yadā yajjananasamarthaṃ tat tadā taj janayaty eva, yathā ’ntyā kāraṇasāmagrī svakāryam | sa eva vā jaladhāras tad avasthāyāṃ vāri dhārayan kṛṣībalavilocanotsavādkāryam vārivitaranaṇakāle vā tatkriyām | śaktaś cāyam ubhayadasaśayām ubhayakāryam arjitum iti svabhāvahetuprasaṅgaḥ.
<table>
<thead>
<tr>
<th>Author</th>
<th>Reason</th>
<th>Target</th>
<th>Locus (of reductio)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jñānaśrī (#1)</td>
<td>having capacity for $y$ at $t$</td>
<td>necessarily producing $y$ at $t$</td>
<td>raincloud, when it has given up its water</td>
<td>the final causal complex, with regard to its proper effect</td>
</tr>
<tr>
<td>Jñānaśrī (#2)</td>
<td>non-capacity for performing an operation $y$</td>
<td>not producing that operation $y$</td>
<td>raincloud, at other moments (when not full of water)</td>
<td>a grain seed, with regard to producing a rice sprout</td>
</tr>
<tr>
<td>Ratnakīrti</td>
<td>fitness for the linguistic usage “producing $y$” at $t$</td>
<td>necessarily producing $y$ at $t$</td>
<td>pot, at the present moment, or the moment of producing no effect</td>
<td>the final causal complex, with regard to its proper effect</td>
</tr>
<tr>
<td>Mokṣākara</td>
<td>having capacity for $y$ at $t$</td>
<td>producing $y$ at $t$</td>
<td>pot</td>
<td>the final causal complex, with regard to its proper effect</td>
</tr>
</tbody>
</table>

Table 6.1: Prasaṅga Arguments in Buddhist Texts
who eagerly awaits the rain in order to grow his crops, while other raincloud-moments, when the cloud is not filled with water, do not bring joy to the farmer. It is this latter moment which is properly the locus of the prasaṅga. Insofar as we assume a persisting cloud, then at this moment the cloud should have all the same causal capacities as at the former, water-filled moment, including the capacity to produce joy for the farmer. And so, Jñānaśrī claims, the persistence theorist is forced to the unwelcome conclusion that such clouds do in fact bring joy to farmers. The prasaṅga is not a genuine inference, because Jñānaśrī himself does not take the latter cloud-moment to have this capacity, and so he is not himself committed to the truth of the conclusion which follows.

Contraposing the prasaṅga, however, yields an inference (anumāna) which Jñānaśrī will accept as genuine. He gives the formal statement of the corresponding viparyaya in this way:

That x which does not produce y, that x is not causally capable (śakta) with regard to y; such as a grain not producing a rice sprout.

And this [does not produce] the effect which is accomplished at the first moment at the second and subsequent moments, nor the effect which is accomplished at the second and subsequent moments at the first moment.

Thus, a “non-apprehension of the pervader” reason demonstrates difference at every moment, because of the intrinsic nature “capable and incapable” of the raincloud at each respective moment.²²

We note in passing that, as it appears here, this is not a perfect contraposition, because the temporal index which was found in Jñānaśrī’s statement of the prasaṅga is absent from the contraposed inference. But leaving that detail aside, we see that Jñānaśrī has now offered a proper inference. We can infer the target property “not having capacity for a certain effect” from the

²²JNA 17.22–18.2: yad yan na karoti, na tat tatra śaktam | yathā śālyāṅkuram akurvan kodravaḥ | na karotā ca prathamāṅvakṣaṇasādhyāṃ kriyāṃ dvitiyādiśāṣāṇe, dvitiyādiśāṣāṇasādhyāṃ vā prathamāṅkaṇe iti vyāpakānupakabdhir jaladharasya tattatkriyāṣu samarthāsamarthasvabhāvatayā pratikṣaṇāṃ bhedam utpādayati.
### Table 6.2: Contraposed Forms of the Prasaṅga (Prasaṅgaviparyaya) in Buddhist Texts

<table>
<thead>
<tr>
<th>Author</th>
<th>Reason</th>
<th>Target</th>
<th>Locus (of inference)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jñānaśrī (#1)</td>
<td>not producing y</td>
<td>not having capacity for y</td>
<td>“this [raincloud?]” at other moments</td>
<td>grain, for producing a rice sprout</td>
</tr>
<tr>
<td>Jñānaśrī (#2)</td>
<td>performing an operation y</td>
<td>not being incapable of that operation y</td>
<td>raincloud, holding water</td>
<td>the final causal complex of a seed</td>
</tr>
<tr>
<td>Ratnakīrti</td>
<td>not causing y at at</td>
<td>non-fitness for the linguistic usage “capable” of y at t</td>
<td>pot, at the present moment, relative to past/future effects</td>
<td>a grain, relative to the usage “producing a rice sprout”</td>
</tr>
<tr>
<td>Mokṣākara</td>
<td>not producing y at t</td>
<td>not having capacity for y at t</td>
<td>pot</td>
<td>grain, for producing a rice sprout</td>
</tr>
</tbody>
</table>
reason property “not producing that effect.” The similarity class SP is partly filled in by the example of a grain, which everyone would agree does not produce rice sprouts, and so lacks capacity for doing so. The same pervasion relation is applied to the cloud-moment which is not full of water, to show that it lacks the capacity for bringing joy to the farmer.

When the prasaṅga and its contraposition are considered together, Jñānaśrī claims, the persistence theorist is faced with the contradiction of the later raincloud-moment possessing two pairs of opposed properties: producing joy and not producing joy, as well as capacity and non-capacity for the same effect. The only way for his opponent to avoid the contradiction is to abandon the view that both cloud-moments are the same entity, thus paving the way for the Buddhists’ theory of momentariness.

Later in the same text, Jñānaśrī provides a second prasaṅga-viparyaya pair. The prasaṅga is:

Whatever is not capable of performing a certain operation does not perform that operation. For example, a grain seed to a rice sprout.

This rain cloud is not capable at other moments, either, just as \[\text{it is not capable}\] at a moment of non-operation.²³

The corresponding contraposed form (viparyaya) is then given in this way:

Whatever performs a certain operation is not incapable of performing that operation, just like the final moment of the causal complex of a seed. And this cloud [performs] the action of holding water.²⁴

Now, instead of taking the later raincloud-moment, devoid of water, as the locus of the prasaṅga and its contraposition, the earlier cloud-moment, when it is filled up with water, is taken as the locus in both cases. Because, by the opponent’s lights, it is the same as the later cloud-moment, it

²³JNA 17.20–21: \text{yad yatrāśaktam na tat tatkaroti yathā śālyaṅkuram kodravaḥ | aśaktaś cāyam udavāharane ’ka-raṇaṅkaṣaṇavat kṣanāntare ‘pīti.}

²⁴JNA 18.5–6: \text{yad yat karoti na tat tatrāśaktam antyasāmagrīvat | karoti cāyam toyadharas toyadharanam iti.}
must lack the capacity for producing joy in the eyes of the farmer, as the prasaṅga demonstrates. Yet by the contraposed inference, since the earlier cloud-moment does bring such joy, it must not lack the capacity for doing so. Here again, the persistence theorist seems forced to ascribe two pairs of opposed properties to one and the same entity.

Recall Jñānaśrī’s statement of the inference from existence, as presented in chapter 5: “That which exists is momentary, like a cloud.”²⁵ We can now see that the prasaṅga and its contraposition indeed serve to fill in the similarity class SP in the main inference. The prasaṅga and its contraposition provide the similar example stated by Jñānaśrīmitra in the main inference: a raincloud, which is both existent and momentary.

### 2.2 Ratnakīrti

In both cases, Jñānaśrīmitra’s arguments were based around causal capacity (samartha) and non-capacity. His pupil Ratnakīrti significantly changes the properties in the prasaṅga and its contraposition, to focus instead on the property “fitness for the linguistic usage ‘producing a certain effect’” and its negation. He gives the formal statement of the prasaṅga in this way:

That x which, at t, is fit for the linguistic usage “producing y,” that x necessarily produces y at t. For example, the final complete collection of causes produces its own [proper] effect.

And this pot is fit for the linguistic usage “producing the effects belonging to the past and future moments,” at the time of being the causal instrument of an effect belonging to the present moment, and at the time of not producing any effect.

Thus, a prasaṅga having an identity-reason.²⁶

The contraposed form quickly follows:

²⁵JNA 1.8.
²⁶RNA 68.17–20: *yad yadā vaijananavyavahārayogyam, tat tadā taj janayaty eva | yathā ’ntyā kāraṇasāmagri svakāryam | atitānāgataksaṇabhāvikāryakaraṇakāle sakalakriyātikramakāle ṣ比亚迪 svabhāvahetuprasaṅgaḥ.*
That which, at \( t \), does not cause \( y \), that \( x \) is not fit for the linguistic usage “capable” (\textit{samartha}) with regard to \( y \) at \( t \). For example, a grain, not producing a rice sprout [is not fit for the usage “capable”] with regard to a rice sprout.

And this pot does not cause the effects belonging to the past and future moments, at the time of being the causal instrument an effect belonging to the present moment, and at the time of not bringing about any effect.

In this way [an inference whose reason is] the non-apprehension of the pervader differentiates the incapable moment from the capable moment.\(^27\)

For present purposes, we can set aside the question of exactly what effects a pot produces at various times (even mentally supplying, if necessary, a different locus-property pair). Indeed, Sanskrit philosophers often cite the example of a pot where they mean simply “a particular something-or-other.” Pots, after all, were ubiquitous in classical India. We do note, however, that the pot is the similar example from Ratnakīrti’s version of the momentariness inference: “That which exists is momentary, like a pot.”\(^28\) So like his teacher Jñānaśrīmitra, Ratnakīrti intends to provide his similar example by means of prasaṅga and its contraposition.

The important change introduced by Ratnakīrti is that, instead of reasoning about the actual causal properties had by the object, as Jñānaśrīmitra did, we are instead to reason about the object’s fitness, or lack of fitness, for being talked about in a certain way: specifically, the pot’s fitness for being called “capable” with regard to particular effects. This innovation may help Ratnakīrti to gain more ground against his rival persistence theorist, in the following way. It might turn out that to be capable of producing some effect \( x \) just is to produce \( x \). That is, there are no unactualized or unexercised capacities. On this account, there would be so little meaningful difference between Jñānaśrīmitra’s reason and target properties, that it would be difficult to

\(^{27}\)RNA 69.11–15: \textit{yad yadā yan na karoti, na tat tadā tatra samarthavyavahārayogam | yathā śālyankuram akurvan kodravah śālyankure | na karoti caiṣa ghaṭo vartamānakṣaṇabhāvikāryakaranakāle sakalakriyātikramakāle cātītānāgataksaṇabhāvikāryam iti vyāpakānupakabdhir bhinnati samarthakṣaṇād asamarthakṣaṇam.}

\(^{28}\)RNA 67.6.
justify even the supposed presence of the reason property in the locus. On Ratnakīrti’s account, by contrast, we might more easily find some appreciable difference between the reason and the target. While the fact that we fittingly refer to an entity as capable is undoubtedly related to the causal capacities that entity possesses, “fitness for a linguistic usage” nonetheless refers to something different about the entity. It may turn out that it is fitting or appropriate to refer to certain things as capable even though they are incapable. Even better (from Ratnakīrti’s perspective), the opponent may refer to various things, like seeds in the granary, as capable while also acknowledging that they are unproductive. The distance between language and things in the world gives Ratnakīrti space for his prasaṅga.

2.3 Mokṣākaragupta

Finally, for completeness’ sake, I will briefly examine the way in which Mokṣākaragupta presents the prasaṅga and its contraposition. His general account of what prasaṅga is, and how it is employed in service of the inference from existence, opened section 2. In the Tibetan translation of Mokṣākaragupta’s Tarkabhāṣā, that general account is immediately followed by a specific prasaṅga-viparyaya pair. The passage does not appear in any of the extant Sanskrit versions of the text, and it is unclear whether it represents an otherwise lost portion of Mokṣākaragupta’s original work, or an illustrative addition made by a Tibetan translator, on the basis of a general understanding (following other Buddhist momentariness theorists) of how the prasaṅga and its contraposition are to work. The passage reads as follows:

“Whatever thing x is capable of a certain action y at a certain time t, that x does produce y at t. For example, the totality of cause and causal conditions at the last moment is capable of producing its own effect. And this pot is capable, even at the present moment, of producing the effects belonging to the past and future times.” This a prasaṅga formulated with an identity-reason.
The contraposed form can be formulated by adopting “not producing” [as the inferential reason]: “Whatever does not produce a certain effect y at a certain time t, is incapable of producing y at t. For example, a grain seed, which does not produce a rice sprout, is incapable of producing a rice sprout. And this pot does not produce, at the present moment, the effects belonging to the past and future.”²⁹

We can see that Mokşākaragupta largely follows Jñānaśrimitra in his choice of reason and target properties, though with the addition of the temporal index in the contraposed inference. But instead of Jñānaśrī’s raincloud, the locus in both cases is the pot, following Ratnakīrti.

3 Prasañga and its Contraposition in the ĀTV

3.1 ĀTV I.1 as a Response to Jñānaśrīmitra

We can now return to Udayana’s less than helpful response, at the end of the exchange quoted on page 140. If we understand the Buddhist objector in the ĀTV to be using Jñānaśrī’s formulations of the prasañga and its contraposition, Udayana’s objection makes sense. Recall that for Jñānaśrī, the reason property in the prasañga is “capacity for producing an effect y, at time t.” Udayana, then, is clearly responding to Jñānaśrī’s version of the prasañga, and not to that of Ratnakīrti. Though Udayana will discuss yogyatā as a possible gloss on capacity (sāmarthya), this but superficially resembles Ratnakīrti’s prasañga. This is because, as we will see below, the fitness (yogyatā) which Udayana considers here is directly causal—a thing is fit for producing its proper effect—and not linguistic—as with Ratnakīrti, where a thing is fit to be called a cause. Indeed, Udayana seems entirely unaware of Ratnakīrti in his work on the inference from existence. This may suggest that the traditional chronologies, which place Udayana after both Jñānaśrīmitra

and Ratnakīrti, need to be revised, to make Udayana and Ratnakīrti contemporaries who were mutually unaware of each other.

The historical assessment is complicated by the fact that Udayana is consistently very poor at citing his sources, rarely referring to either his predecessors in the Nyāya-Vaiśeṣika tradition or his opponents by name. He simply expects his reader already to be familiar with their works, to recognise allusions and paraphrases as they occur.

Ratnakīrti, by contrast, is typically very good both at quoting his opponents precisely (albeit with omissions of their more challenging arguments) and at referring to them accurately by name. So it is somewhat telling that Ratnakīrti never refers to Udayana by name in his works on momentariness, or indeed anywhere else in his accepted corpus. The exception is a curious work entitled *Udayananirākaraṇam*, “The Refutation of Udayana,” which is attributed to Ratnakīrti but considered by modern scholars to be spurious,³⁰ the evaluation of which is beyond the scope of the present project.

Ratnakīrti’s and Udayana’s citation practices aside, however, we may note that from a philosophical perspective, the change in the formulation of the prasaṅga and its contraposition between Jñānaśrī and Ratnakīrti could very well represent an attempt at responding to Udayana’s criticism. As we will see in section 3.2 below, as long as both properties in the prasaṅga are directly concerned with causal powers, it is very difficult to get the requisite difference between reason and target, for an acceptable pattern of reasoning. The most plausible explanation for Ratnakīrti’s replacement of his teacher’s prasaṅga with his new formulation is that he was aware of this objection (even if unaware of Udayana as its author), and sought to distinguish the reason from the target in the prasaṅga by making the former concerned with linguistic expressions, and only the latter directly concerned with causal powers.

³⁰Compare the title page and colophon of Pandey’s (1984) edition of the *Udayananirākaraṇam* with, for instance, the classification given by Steinkellner and Much (1995: 108) in their comprehensive bibliography of the Buddhist epistemological school.
So regardless of how we date Udayana and Ratnakirti, it is clear that Udayana is responding to Jñānaśrīmitra, and not to his pupil Ratnakirti, in the first chapter of the ĀTV.³¹

All of this has, to date, not been remarked upon by any of Udayana’s commentators, classical or modern, a fact which can largely be explained by the failure of most of these commentators to understand “prasaṅga and its contraposition” in the ĀTV correctly. Despite discussing Jñānaśrīmitra’s work on prasaṅga earlier in the same paper, Joy Laine suggests that in Udayana’s discussion the objector’s prasaṅga is “If something is capable then it produces,” with the prasaṅgaviparyaya “If something is not capable then it does not produce.”³² The problem here is that the viparyaya is not a contraposition. Therefore, we do not have a pair of reasonings which could generate the requisite contradiction. In order to establish the opposed properties “producing” and “non-producing” (which are the target properties in Laine’s prasaṅga and prasaṅgaviparyaya, respectively) by these arguments, we would already have to accept the opposed properties “capable” and “not capable” (Laine’s two reason properties). The opposed target properties established by the prasaṅga and its contraposition would therefore be superfluous.

³¹There is a single, very short passage which may constitute an exception to this. After some short considerations about cooperating causes, Udayana remarks that “For this reason, the reason property ‘being within the scope of the conventional expression “capable” (samarthavavahāragocaratva) is refuted, because when it is within the scope of this usage, the seed is observed to be a non-instrument for a sprout.” (ĀTV 58.17–18: etena samarthvavavahāragocaratvam hetur iti nirastam | tādṛgvyavahāragocarasyāpi bijasyāṅkurākaraṇadarsanāt.) The objector replies by denying that this is the primary usage of the term, and Udayana proceeds directly into a discussion of capacity as delayed and non-delayed causality.

Here, we note first that the phrasing of this reason property differs from that of Ratnakirti’s prasaṅga, when Udayana writes gocaratva for Ratnakirti’s yogyatā. Furthermore, this very brief mention does not treat any version of the “conventional usage” (vyavahāra) view as a serious contender.

³²Laine (1998: 83n14). Versions of something similar are given in Kṛṣṇamādhava Jhā’s commentary (ĀTV(Jh) 7.5–10) on the ĀTV:

If the seed in the granary were to be capable in regard to the arising of a sprout, then a sprout would be caused—thus, the prasaṅga. And it does not cause (a sprout), therefore it is not capable—thus, the viparyaya.

And likewise, if the seed planted in the field were not capable, then a sprout would not be caused—thus, the prasaṅga. A sprout is caused, therefore the (field-seed) is not non-capable—thus, the viparyaya.

And by these two prasaṅgas and two viparyayas, the difference of the seed located in the granary and the seed planted in the field is established. And when this is established, momentariness is established thereby. In this way, doubt is dispelled.
Raghunātha alone among the classical commentators seems to understand prasaṅga and its contraposition, when he explains,

That x which is capable with regard to an effect y, such as a sprout, at time t, that x causes y at t. For example, the seed which is located in the midst of the cooperating causes, which is capable relative to a sprout, and the seed which is placed in the granary each lead to different things at those times. This is the prasaṅga.

That x which does not cause an effect y, such as a sprout, at t, that x is not capable with regard to y at t. For instance, a piece of stone which is not capable relative to a sprout, even when so situated with the (cooperating) causes of a sprout. And the seed located in the granary does not produce a sprout at that time. This is the contraposed form.³³

There are some small, relatively insignificant changes between Raghunātha’s and Jñānaśrīmitra’s version of the prasaṅga. Where Jñānaśrī says “it produces” (janayati), Raghunātha writes “it causes” (karoti). Raghunātha also shifts from Jñānaśrī’s raincloud to Udayana’s examples involving seeds.³⁴ Raghunātha makes no explicit mention of any of the historical Buddhists, which is not surprising, when we consider that he postdates the last prominent Indian Buddhist intellectuals by several centuries.

Within Udayana’s refutation of the pair of opposed properties from Jñānaśrī’s prasaṅga (namely, capacity and non-capacity), the main themes are as follows:

- Epistemic problems with Jñānaśrī’s prasaṅga and its contraposition (until ĀTV 59).
- Examination of causality as delayed or non-delayed (ĀTV 62–68).

³³ĀTV(R) 37.1–6: yad yadā yat kāryam ankuram vā prati samaratham, tat tadā tat karoti | yathā sahaśārimadhyam adhyāśinabijam ankurasamartham tat tādānīm kuśūlasabijam upeyate paraīr iti prasaṅghah | yad yadā yat kāryam ankuram vā na karoti, tat tadā na tatsamartham, yathā yāvatsattvam ankurakāri śilāsaśakalam ankurasamartham na karoti ca kuśūlasabijam tādānīm ankuram iti viparyayah.

³⁴We note that, with a prasaṅga concerning seeds, Udayana himself has a mismatch between the prasaṅga and the momentariness inference, in which the similar example was a pot.
• The role and limits of the cooperating causes (ĀTV 73–75).
• Eliminating the possibility of an intermediate class (avāntarajāti) (ĀTV 77–92).
• Udayana’s own prasaṅga arguments, tying everything up (ĀTV 94–114).

In the remainder of this section, I will address the epistemic issues related to the first and last items in the above outline, in sections 3.2 and 3.3 respectively. In sections 4.1 and 4.2, I will consider the account of causality elaborated in the middle items.

3.2 Epistemic Problems with Jñānaśrī’s Prasaṅga

Udayana responds to Jñānaśrī’s proposal by seeking to clarify what “capacity” means as part of this reason property. He suggests two options, “being a causal instrument” (karaṇatva) and “fitness” (yogyatā). Udayana’s claim is that these options exhaust the relevant interpretations, and that neither of them provides an acceptable instance of reasoning by prasaṅga.

With this response, Udayana accepts the general method of reasoning by prasaṅga and its contraposition. The contraposed form (viparyaya), as we have seen above, is just an inference (anumāna), and Udayana has no problem with inference in general as a method of reasoning. The prasaṅga, meanwhile, can be seen from Udayana’s perspective as a case of hypothetical reasoning (tarka). Assuming that a prasaṅga is successful, it would meet the conditions of a genuine tarka, as presented in section 3 of chapter 4. It is based in the relation of pervasion (condition 1); culminates not in the acceptance of the target as belonging to the locus, but rather in realising the truth of some contrary conclusion, in this case the truth of the momentariness of the locus (condition 3); is undesirable to the opponent, here, the persistence theorist (condition 4); and it is unfavorable to that opponent’s position (condition 5). The only condition which might be difficult to satisfy is the second condition, that the genuine tarka not be opposed by another tarka. It is with regard to
this condition that Udayana challenges Jñānaśrī’s prasaṅga, by providing alternative hypothetical reasoning to undermine the prasaṅga.³⁵

Let us now examine the two alternatives for glossing “capacity” (sāmarthya): instrumentality (karaṇatva) and fitness (yogyatā).

Udayana’s discussion of the first option begins as follows:

Udayana: Indeed, capacity [means] either being a causal instrument or fitness. It is not the first of these, because of the undesirable consequence of being non-distinct from the target.

Objector: Because of a difference in the exclusions [of the two terms], this is not a fault.

Reply: No, because that is impossible. Indeed, the basis of that (difference of exclusions) is just opposition (virodha) which results from a difference in the things which are excluded.³⁶

To consider the first option, if we attempt to gloss capacity as causal instrumentality, then the prasaṅga reads as follows: “This seed is the causal instrument for a sprout at t, because it necessarily produces a sprout at t.” But to be a causal instrument for a particular just is to necessarily produce that effect, immediately and without delay. So the pervasion relation in this prasaṅga provides no new awareness. In order to avoid this objection, the objector tries to find a difference between the two terms, based on their exclusions. Recall from chapter 2 the common practice of explaining terms or definitions based on what each word excludes from membership in that definition.³⁷ If the exclusions for “capacity” and “instrumentality” are somehow different, then the Buddhist might have a meaningful pervasion relation after all.

³⁵This happens only after Udayana has settled on the appropriate understanding of capacity as some fitness (yogyatā) which is uniquely a thing’s own, apart from the totality of cooperating causes. See section 3.3 below.

³⁶ĀTV 34.3–6: sāmarthyaṃ hi karaṇatvaṃ vā, yogyatā vā | nādyah, sādhvyāviśiṣṭatvaprasaṅgāt | vyāvṛtitibhēdād | ayam adosa iti cet | na, tadanupapatteh | vyāvartyabhedena virodho hi tanmūlam. The beginning of this passage overlaps with the end of that cited on page 140 above.

³⁷See, for instance, note 27 on page 26, in chapter 2.
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But how can the exclusions of two terms differ? Only, Udayana claims, on the basis of some difference in the real objects which are excluded. In what follows, Udayana considers four different ways in which things can have different exclusions, none of which will help the Buddhist here.

1. Words have different exclusions when there is some mutual opposition (virodha) between the things which are excluded, as in the case of “being a cow” and “being a horse.”³⁸ Here, the exclusions are different, but only because cowhood is part of non-horsehood, and vice versa. But “instrumentality” and “necessarily producing the effect” cannot be opposed in this way, if any pervasion relation is to hold between them in the prasaṅga, so this option does not help the Buddhist.

2. Alternatively, there might be a relationship of inclusion and exclusion, between things which occur together, such as “being a tree” and “being a śimśapā” (a species of tree).³⁹ But again, the case of capacity and instrumentality is disanalogous. The exclusions of tree and śimśapā differ insofar as there are trees of other species which are not śimśapās. But “instrumentality” and “necessarily producing the effect” always occur together, and so their exclusions cannot differ in this way, either.

3. There might be some crosscutting feature (upādhi), as with the properties “being a product” and “being non-eternal.”⁴⁰ This case is somewhat confusing, but Śaṅkaramiśra explains that being a product is based on a thing’s past history of coming to be at a certain time (i.e., by having a prior absence, prāgabhāva), while being non-eternal has to do with the thing’s ceasing to exist at some future time (i.e., having a posterior absence, dhvamśa).⁴¹ Since

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³⁸ ĀTV 39.
³⁹ ĀTV 41–42.
⁴⁰ ĀTV 43.
⁴¹ ĀTV(ŚM) 43.16–18. For the varieties of absence, see section 2 of chapter 7.
there is no parallel feature in the case of “instrumentality” and “necessarily producing the
effect,” their exclusions cannot be different in this way.

4. Finally, a difference between the Buddhist’s two terms cannot be grounded merely in different
mental conceptions (vikalpa), since these would in turn need to be explained by some
difference in the objects themselves, and all options for such a difference in the objects have
already been exhausted.⁴²

If these in fact exhaust the ways in which terms can have different exclusions, as Udayana as-
sumes, then the Buddhist cannot run his prasaṅga argument using instrumentality as a gloss on
capacity, since the reason and target properties would be non-different from each other.

The alternative is to gloss capacity as some kind of fitness (yogyatā). Though he does not spell
this out explicitly, Udayana seems to mean a fitness for producing the proper sort of effect. For
a seed, this would be a fitness for sprout production. Yet this notion of fitness must, in turn, be
somehow defined. Udayana suggests two options, which are meant to be exclusive: Capacity is
either (a) the totality of cooperating causes or (b) something uniquely a thing’s own.⁴³ In the first
case, fitness would have to do with one or more things other than the seed itself (where the seed
is the cause with which Udayana’s example is concerned). In the second case, the fitness would
belong only to the seed, without depending on anything else.

On the reading of fitness as the totality of cooperating causes, the prasaṅga seems incapable
of proving anything which Udayana (as its audience) does not already accept. The prasaṅga now
states: “This seed possesses the totality of cooperating causes, since it immediately produces its
effect.” For a productive seed, this poses no problem. But at a non-productive time, Udayana will
accept neither the production of the effect, nor the presence of the totality of cooperating causes.

⁴²ĀTV 45.
⁴³ĀTV 46.
So glossing capacity as fitness, and fitness in turn as the totality of cooperating causes, will be useless for the Buddhist.

Unless the Buddhist is willing to gloss “capacity” as “a fitness which is uniquely a thing’s own,” the prasaṅga and its contraposition depend upon an inadequate pervasion relation, since on any of the other interpretations, there is insufficient distance between the reason and target properties in the prasaṅga. Either the reason is no different from the target, or else the target adds nothing to the reason, merely proving what was already established. I will examine how Udayana rules out the final remaining option, “a fitness which is uniquely its own,” in section 4 below. For now, we simply note that even the epistemic critique of the Buddhist’s prasaṅga and prasaṅgaviparyaya is not based on an objection to the prasaṅga method as such. The objection turns merely on a difficulty in showing pervasion, given that prasaṅga method.

3.3 Udayana’s Own Prasaṅga Arguments

Finally, to see even more clearly that Udayana is accepting of prasaṅga as a method in general, we need only note that near the end of the discussion of capacity and non-capacity, Udayana offers two of his own prasaṅga-viparyaya pairs. The arguments, which are summarised in table 6.3, encapsulate the key ideas which appear in Udayana’s discussion of the metaphysics of causal capacity, which I examine in section 4.⁴⁴

With the first pair, Udayana intends to prove that the seed-class, as such, is the cause of sprouts. He begins with this formal reasoning (nyāya):

That which is not a cause with regard to a sprout, that is not a member of the seed-class, like a piece of stone. And a seed placed in a granary, it is acknowledged by

⁴⁴These latter topics are the middle items from the outline on page 155 above.
others [i.e., by you, Mr. Buddhist] is not a cause with respect to a sprout. Thus, a prasaṅga-reason, characterised by the non-apprehension of the pervader.⁴⁵

This is a prasaṅga, inasmuch as it brings out an unwelcome consequence to which the Buddhist, but not Udayana himself, is committed. Both parties accept the pervasion of “not being the cause of a sprout” by “not being a member of the seed-class.” So as with any prasaṅga, the pervasion relation (vyāpti) is genuine, and agreed to by all parties. The defect which prevents the prasaṅga from being a genuine inference (anumāna) is with the inferential requirement for the reason’s being a property of the locus (pakṣadharmatā, T1/P1). Udayana does not take it to be the case that the seed is not the cause of a sprout—for indeed, the seed is such a cause. But because, unlike Udayana, he will not accept delayed causality, the Buddhist is committed to the granary-seed’s not being such a cause. In this way, Udayana’s prasaṅga argument draws out an unwelcome consequence of his opponent’s commitments.

Udayana concludes the quotation by classifying the reason property after the fashion of Dharmakīrti and Dharmottara, as a particular sort of non-apprehension reason.⁴⁶

The objector responds to Udayana’s statement of the prasaṅga by enquiring about its contraposition, in order to illuminate exactly how he is forced into a contradiction. Udayana states the contraposed form in this way:

That which is a seed, that is the cause with regard to a sprout, like a seed[-moment] located last among the collection of causes. And that which is under discussion is a seed. Thus, an identity-reason.⁴⁷

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⁴⁵ĀTV 94: tādā yad aṅkuraṃ praty aprayojakaṃ na tad bijajātiyam yathā śilāśakalam | aṅkuraṃ praty aprayojakaṃ ca kuśālanihitam bijam abhyupetam parair iti vyāpakānupalabdhiḥ prasaṅghetuḥ.

⁴⁶For the various subdivisions of non-apprehension reasons, see Kajiyama (1998: 151–154). Expanding on an earlier, incomplete classification given by Dharmakīrti, the later Buddhists enumerate sixteen different varieties, of which this case, vyāpakānupakabdhi, is one.

⁴⁷ĀTV 96: yad bijam tad aṅkuraṃ prati prayojakaṃ yathāntyasāmagrimadhhyāsinam bijam | bijam cedam vivādā- spadam iti svabhāvahetuh.
### Table 6.3: Udayana’s Prasaṅga Arguments and their Contrapositions

<table>
<thead>
<tr>
<th>Argument</th>
<th>Reason</th>
<th>Target</th>
<th>Locus</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prasaṅga #1</td>
<td>not being the cause of a sprout</td>
<td>not being a member of the seed-class</td>
<td>granary seed</td>
<td>piece of stone</td>
</tr>
<tr>
<td>Viparyaya #1</td>
<td>being a seed</td>
<td>being the cause of a sprout</td>
<td>this thing here (a seed)</td>
<td>the final seed-moment, among the cooperating causes</td>
</tr>
<tr>
<td>Prasaṅga #2</td>
<td>not being employed in purposeful action in virtue of form y</td>
<td>not having form y</td>
<td>a rice-grain, in virtue of being a seed</td>
<td>a seed, in virtue of being an elephant</td>
</tr>
<tr>
<td>Viparyaya #2</td>
<td>having form y</td>
<td>being employed in purposeful action in virtue of form y</td>
<td>granary seeds</td>
<td>things located among the appropriate cooperating causes</td>
</tr>
</tbody>
</table>
Here, when Udayana refers to “being the cause of a sprout,” he does not mean the causal instrument, where the instrument is what immediately and without delay gives rise to the effect.⁴⁸ Rather, the causality in question can be delayed; the effect can arise at a non-present time.

On the one hand, the Buddhist is committed to respecting our ordinary linguistic conventions with regard to seeds placed in the granary. That is, we refer to those things (unlike most other things) as seeds. As Udayana goes on to explain, there are only two possibilities, for how we can recognise various individuals as belonging to the seed-class (bījajāti): by an inference from the thing’s effect (i.e., as being a sprout producer), or directly by perception as a seed. Furthermore, the Buddhist needs to respect our typical practice with regard to seeds: we store seeds, but not stones, in our granaries. From these comments, Udayana’s prasaṅga shows that his opponent is therefore committed to incoherence, should he deny causal capacity to granary seeds.

Where the first prasaṅga-viparyaya pair was concerned with the seed itself, Udayana’s second pair deals with our employment of, or our actions regarding, seeds. He states:

That thing x which is not employed in purposeful actions in virtue of having form y, that x does not have form y. For example, a seed, which does not accomplish anything in virtue of elephanthood, does not have the form “elephant.” And a rice-grain or the like, which has entered among the causal complex, is not employed for purposeful actions by way of seedhood.

This is a prasaṅga-reason marked by non-apprehension of the pervader, since having this form (i.e., seedhood) is pervaded by fitness (yogyatā) with respect to purposeful action, since otherwise, there is a very undesirable consequence.

If you say, “having that form is difficult to deny, since it is established by perception,” then there is the contraposed form (viparyaya), thus:

⁴⁸Cf. KTBh 10.1, discussed in chapter 2.
That thing x which has the form y is employed for purposeful action in virtue of that form y. For example, things which have their place [last] among the complete collection of causes [are employed for an effect] in virtue of that nature. And these granary-seeds, etc., have the nature (jātī) “seed.”

Thus, an identity-reason (svabhāvahetu), since fitness (yogyatā) is connected with the mere having of that nature.⁴⁹

The Buddhist is first forced to accept the consequence of the prasaṅga argument, insofar as we regularly observe certain items differentially being acted upon, or not acted upon, by human beings in various ways: saving and drying them, storing them in granaries, planting them, etc. We observe that these behaviors are not done to certain items just because those items are not seeds, though we do observe such behaviors being done to seeds. So, the Buddhist must conclude that each of these things, wherever it is located, is a not member of the seed class. And by the contraposed inference, we see that all members of the seed class are engaged in some sort of productive action in virtue of their being seeds.

The Buddhist still has one last strategy, to try to avoid the unwelcome consequence that granary seeds are the causes of sprouts. What if, he asks, we instead take the effect common to all seeds (whether in the field or the granary) to be the awareness of a seed which arises for some cogniser? While all seeds may not produce sprouts, they do, the objector claims, all produce seed-cognitions. The problem here is that it is not the case that every seed, at every moment, is connected to some sense-organ, by which a perceptual awareness could result.⁵⁰ To briefly switch examples, every tree which falls in the forest makes a sound, but if no one is present to

⁴⁹ĀTV 105–106: tatrāpi prayogah | yad yena rūpenārthakriyāsu nopayujyate na tat tadrūpam | yathā bijam kuñjara-tvena kiñcid apy akurvan na kuñjarasvarūpaṃ tathā ca sālādayah sāmagrīpraviṣṭā bijatvenārthakriyāsu nopayujyante iti vyāpakānupalabdhiḥ prasāṅgahetuḥ tadrūpaprajñā arthakriyāṃ prati yogajāyā vyāptatvāt anyathātprasāṅgat | tadrūpatvam etasya pratyaścādhyāvāśād aśakyāpahavam iti cet | astu tarhi viparyayaḥ yad yadrūpam tat tena rūpe-nārthakriyāsūpayujyte yathāsadbhāvāvina sāagriniveśino bhāvā bijājātiyāḥ caite kuśulasthādaya iti svabhāvahetuh tadrūpatvamātrānubandhitvād yogatāyāḥ.

⁵⁰ĀTV 107.
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hear it, then there will be no cognition of the sound. Generating a certain kind of cognition cannot, therefore, be the common effect produced by seeds. And given that we have a perfectly good candidate for what the effect common to all members of the seed class might be (i.e., producing sprouts) which is amenable to perception, there is no justification for positing some mysterious, unknown, imperceptible effect to account for the unity of the class. Therefore, the objector must accept this effect as that which is proper to all seeds, qua seeds.

Udayana can then conclude his discussion of the first pair of opposed properties, capacity and non-capacity, with two final pieces of formal reasoning:

The seed which is presently under dispute has the absence of the effect—sprout, etc.—resulting from the absence of the cooperating causes, because of its being of the seed-class, which has become an object of certainty through the production of effort. Again, that which does not have the absence of the effect sprout, etc., resulting from the absence of the cooperating causes, that is not a member of the seed-class, like a piece of stone.⁵¹

Here, nothing is marked as a prasaṅga. Indeed, the pervasion relation (in both is regular and contraposed forms) is a good one, and Udayana accepts that the locus—“the seed which is presently under dispute,” that is, the one in the granary which is not immediately productive—possesses the inferential reason. That reason is a complex one: “the absence of the effect … which results from the absence of the cooperating causes.” So as Udayana indicates, this is a genuine inference (anumāna). In the second, contraposed case, meanwhile, no locus is mentioned at all, and so there is not a second inference. Taken together, all of this reasoning simply indicates both the positive and negative concomitance for a single case. The inference demonstrates the critical role played by the cooperating causes.

⁵¹ĀTV 111–112: athavā vyatirekenaprayogah vivādādhyāsitam bijam sahakārikaikalyaprayuktāṅkurādīkārīyaikalyāṃ tadupattiniscayavisayibhūtabijātiyatvat | yat punah sahakārikaikalyaprayuktāṅkurādīkārīyaikalyāṃ na bhavatīna tad evabhūtabijātiyaṁ yathā śilāśakalam iti.
4 Themes in Udayana’s Account of Causality

In this section, I will survey some key points of the account of causality presented by Udayana as an alternative to the Buddhist account. To examine every nuance of every argument would be well beyond the scope of the present project, which is focused instead on understanding the broad contours of Udayana’s text in the light of his theories of reasoning.

4.1 Delayed Causality and Cooperating Causes

We saw in section 3.2 that the only interpretation of Jñānaśrīmitra’s prasaṅga which might possibly be successful would require glossing “capacity” as some fitness which is uniquely a thing’s own. The Buddhist must therefore explain what feature of a seed (or of whatever other thing) is pervaded by the target property “necessarily producing the effect, the sprout.” Udayana suggests three possibilities:

1. “Being a member of the seed-class” (bījajātī) is pervaded by “necessarily producing the effect, the sprout.”
2. “Being a member of some intermediate class” (avāntarajātī) is pervaded by “necessarily producing the effect, the sprout.”
3. “The presence of the cooperating cause” is pervaded by “necessarily producing the effect, the sprout.”

The first option is quickly rejected, as we observe by perception that the things in the granary belong to the seed class, even though they produce no sprouts. “In regard to this,” Udayana says to the Buddhist, “there is not any dispute, even by you.”

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52 ĀTV 48. Udayana states the third option negatively: “The absence of the result is connected to some deficiency in the cooperating causes,” implying that when those cooperating causes are present, the result is also made present. 53 ĀTV 49.
The second option, membership in an intermediate class, seems to be unsupported by any of the epistemic instruments. We will examine this possibility in further detail in section 4.2 below.

The third option, as stated, is also incorrect, being contradicted by perception. Udayana explains that in some cases, a seed which is bereft of certain cooperating causes will be non-productive of a sprout, while in other cases, when those same cooperating causes are lacking, a sprout will nonetheless be produced from that seed.⁵⁴ Here, Udayana may simply be appealing to the fact that different collections of cooperating causes are observed to be equally efficacious in helping seeds to bring forth sprouts, such that any specific combination of nutrients and the like is not necessary. Another distinct combination could also allow for sprout production, so we have deviation from the supposed pervasion between “the presence of these cooperating causes” and “necessarily producing the effect.”

Udayana proceeds to address his opponent in this way:

And here, even you, sir, do not differ in your view, since this is established by an epistemic instrument, and because, in regard to the opposite view, it is contradicted. That is, if what is not causally productive when devoid of cooperating causes also were not to produce when there is the coming-together of those [cooperating causes], then this thing of this class would just not be a causal instrument, since it is not an instrument either with or without that assemblage [of cooperating causes].⁵⁵

If it were to produce even without the assemblage of these [cooperating causes], then the co-operating causes would not be a cause, since it is an instrument (ka-rana) even without them. Thus, if there is [taken to be] the non-causehood even of those things which have [causal] anvaya and vyatireka, which cannot be otherwise explained, then there would be the undesirable consequence that the effect would

⁵⁴ĀTV 57.
⁵⁵That is, it would neither be an instrument in the delayed way, nor would it be an instrument in the non-delayed way. It would therefore be a non-instrument, without any further qualification.
be accidental/groundless (*aniyama*), and thus, there is the refutation of [the effect’s] occurring only at certain times [i.e., of its being properly occasional].⁵⁶

By “causal anvaya and vyatireka,” Udayana refers not to the two parts of the pervasion relation as used in inferential reasoning, but rather to a pair of necessary conditions on a causal relation, which are commonly referred to in Sanskrit academic literature: “When x is occurs, y is occurs,” and “When x is absent, y is absent.”⁵⁷

Something which has causal capacity will therefore exercise that capacity either in the form of non-delayed causality, or in the form of delayed causality. In the former case, we can say that it is a causal instrument just in case it immediately follows the complete assembly of cooperating causes. To understand the latter case, its delayed causality, we may say that “to the extent that there is not the coming-together of the co-operating causes, to just that extent, it is not an instrument;” we do not say that “it is always not an instrument.”⁵⁸ In this way, a capable thing can either produce its effect or not, at different times, based on the presence or absence of the cooperating causes. Whether or not it is presently productive, we can describe the seed as capable.

### 4.2 An Intermediate Class?

Following this discussion of delayed and non-delayed causality, Udayana returns to the questions of an intermediate class (*avāntarajāti*), an alternate class, other than the seed-class, to which only productive things belong. The objector suggests that it could be in virtue of their being members of the intermediate class, and not due to their being seeds, that productive seeds produce sprouts.⁵⁹

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⁵⁶ĀTV 66: *atra ca bhavān api na vipratipadyata eva pramāṇasiddhatvāt viparyaye bādhakāc ca | tathā hi yadi sahakāriviraha 'kurvānas tatsamavadhāne 'pi na kuryāt tajjātiyam akaraṇam eva syāt | samavadhānāsamavadhānāyor ubhayor apy akaraṇāt | evaṃ tatsamavadhānāviraha 'pi yadi kuryāt sahakāriṇo na kāraṇam syuh, tānantarenāpi karanāt | tathā cānanyathāsiddhānvyatirekavatām apy akāraṇatve kāryasyākasmikatvaprasaṅgaḥ | tathā ca kādācitkatvavihātītī.

⁵⁷See Cardona (1981) for an extremely lucid discussion of this type of reasoning.

⁵⁸cf. ĀTV 68.3–5, referring to the two pairs of options at ĀTV 64.

⁵⁹cf. ĀTV 77.
The intermediate class, like any proper kind, would be characterised by its own defining mark, which Śaṅkaramiśra and other commentators call the productive form \((kūrvadrūpa)\), although Udayana himself never uses this term.

The objector faces the difficulty of articulating the relationship between the seed-class \((bīja-jāti)\) and the intermediate class. Here, Udayana has shifted the example from a seed to a rice-grain. He first asks how membership in the special intermediate class relates to being a rice-grain, before considering the related question of how being a rice-grain relates to being a member of the intermediate class.

And this special type of class must either be (a) one which pervades ricehood, or (b) one which is opposed to ricehood. In the first case, why does the rice grain in the granary not have this form? In the second case, how does the acknowledged rice grain [in the field] have this form?

Ricehood, then, must be either a pervader of this other class, or opposed to it. In the first case, there is the undesirable result of the non-existence of the other class where there is a non-rice grain. In the second case, there is the undesirable consequence of the non-existence of the other class everywhere [i.e., even among the productive rice grains].

For Udayana, class divisions must cut nature at the joints, without crosscutting. So there are only three possible ways in which any two universals \(A\) and \(B\) can be related to each other:

1. One universal pervades the other. \(A\) is present in all \(Bs\), as well as in some other things (or vice versa).

\(^{60}\)ĀTV 84: sa khalu jātvīvīśeṣaḥ śālitvasamgrāhako vā syāt tatpratikṣepako vā | ādye kuśūlasthasyāpi śāleḥ katham na tadrūpatvam | dvitiye tv abhimatasyāpi śāleḥ katham tadrūpatvam | evaṃ śālitvam api tasya samgrāhakam pratikṣepakam vā | ādye 'śāler atattvāpatīḥ, dvitiye tu śāler evatattvaprasāṅgaḥ.

2. The two universals are mutually opposed. There exists nothing in which both A and B are present.⁶²

3. There are merely two names for a single universal. “A” and “B” are synonyms.

Since the Buddhist objector in the ĀTV posits the intermediate class in order to do some work that the seed class does not, the third of these options is clearly unhelpful, and so Udayana does not even mention it here. In the above quotation, he simply spells out each of the first two options, in two directions.

According to the first pair of options, ricehood is either pervaded by the intermediate class, or opposed to the intermediate class. In the first case, such a pervasion relation means that the intermediate class is found in all rice grains, as well as in some other things. That cannot work, since the rice grain in the granary would then possess the productive form of the intermediate class. If instead the two universals were opposed, then even the productive rice grain in the field would lack the intermediate class. In either case, the intermediate class cannot explain why some rice grains produce sprouts while others do not.

The second pair of options considers the relation between the two classes in the opposite direction. For the second case, where the two are opposed, there is really no difference from the opposition in the first pair. The case where ricehood pervades the intermediate class, however, adds a new possibility. If we take this option, then ricehood is found in everything which possesses the intermediate class, as well as in some other things. Every sprout producer is then a rice grain. This, however, leaves no room for seeds to be producers of sprouts, or else requires that all seeds be rice grains.⁶³

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⁶²Here, as in the above quotation, Udayana is using “opposed” in the weak sense mentioned in section 1.3 above.

⁶³The suggestion that only productive seeds would have to be rice grains, in addition to being undesirable in itself, is ruled out by the crosscutting rule. If the intermediate class includes both some rice grains and some seeds, then it must include all rice grains and all seeds.
The objector suggests that everything could be explained by appeal to a “division of individuals,” thus sidestepping Udayana’s concerns about crosscutting classes. But if we make this move, then classes become meaningless. Nothing would prevent opposed universals, like being a horse and being a bird, from occurring together in a single individual. Likewise, nothing would prevent universals related by pervasion, like being a tree and being a śiṃśapā, from coming apart, such that some individual was a śiṃśapā without thereby being a tree.⁶⁴ We cannot, then, find a coherent way to relate the intermediate class which explains production to the other universals like being a seed or being a rice grain.

Following a long examination of the problem, Udayana summarizes the main dilemma in this way:

“When there is the arising of a thing x which exists among the cooperating causes of an effect y, then x is the impeller with regard to that effect y.” If you say this, is a distinct intermediate class accepted, or is x an impeller simply by means of the nature of a seed? In the first case, it is simply that distinct class which is the impeller; what is the point of seedhood? In the second case, there is superfluity even of those things which have a similar character, in this way: “it is not an instrument, because of a defect in the co-operating causes,” since when there is the assembly of the cooperating causes for a certain thing, the nature of a seed, which nature is the impeller with respect to that sort of effect, is common to everything.⁶⁵

Here, the impeller is that which immediately gives rise to some effect. On the first horn of the dilemma, the mere presence of the intermediate class determines whether or not a sprout is produced, so there is no work to be done by the larger class, “being a seed.” On the second horn,

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⁶⁴ ĀTV 85, 89.
⁶⁵ ĀTV 103–4: yadā yadutpannāṃ sat yatkāryanukālasahākārīmadhyānadhīṣṭe tadā tad eva kāryaṃ prati tasya prayojaṅkatvam iti cet | tat kim avāntarajātibhedam upādāya bijasvābhāvenaiva vā | ādye sa eva jātibhedas tatra prayojaṅkaḥ kim ayātam bijatvasya | dvitiye tu samānaśīlānām api sahākārivaikālyād akaraṇam ity ayātam tat tatahakārisāhitye sati tat tatkāryam prati prayojaṅkasya bijasvābhāvasya sarvasādhāraṇatvād iti.
anything which appeared together with the appropriate cooperating causes would be called—and would in fact be—a seed. Either way, if we posit some mysterious intermediate class, our ordinary thought and talk about, and behavior toward, seeds becomes inexplicable, as seeds seem not to matter for sprout production. The intermediate class does all the work, either making seedhood (with its customary extension) irrelevant, or else making seedhood a trivial property which can be had by anything.

4.3 Instrumentality and Temporal Indexing

After a lengthy discussion of capacity and non-capacity, including Udayana’s own two pairs of arguments by prasaṅga and its contraposition, the objector finally concedes that seeds in general have only capacity with regard to producing sprouts (and never lack that capacity).⁶⁶ However, the objector is unwilling to assent to persisting individual seeds having a single nature as either always being the causal instrument for sprout production, or as never being such an instrument. Recall, from chapter 2, that an instrument (karana) is “the most effective cause” of some effect,⁶⁷ which always, immediately, and inevitably gives rise to that effect. By the account of capacity which Udayana has just provided, and to which the Buddhist objector has just assented, a seed which is always capable nonetheless produces a sprout only sometimes, based on the presence of the cooperating causes. So, the objector claims, we observe by perception (of the arising and non-arising of a sprout at various times) that the persisting seed both is and is not a causal instrument.

Udayana’s response is simply to require a temporal index for these causal properties, such that an individual seed is not merely in instrument, but is an instrument-at-t. He justifies the need for temporal indexing by drawing a close parallel with spatial indexing, a choice which is not accidental. The Buddhist epistemologists themselves posited a close connection between extension in space and extension in time, rejecting the ultimate existence of anything with tem-

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⁶⁶That is, the seed-class (bijajāti) as such is only capable, and never incapable.
⁶⁷cf. KTBh 10.1.
poral parts (i.e., persisting things) in much the same way that they reject the ultimate existence of anything with spatial parts.

For the larger inference from existence, the Buddhist must acknowledge the existence of some of the same things as Udayana, which exist in the external world at particular places: seeds, sprouts, and the like. The theory of purely mental things (and therefore purely mental causality) which might be advocated by the Buddhist Yogācāra school is not an option, given this larger inferential and dialectical context.⁶⁸ Given that these things are located in space, it would be absurd for the Buddhist to formulate his prasaṅga arguments without a spatial index. For without such indexing, if it is the case that a sprout is produced over here, but no sprout arises over there, a single seed would seem to have the opposed properties “producer of a sprout” (in virtue of the former location) and “non-producer of a sprout” (in virtue of the latter). So we must conclude, with Udayana, that

Indeed, being the cause of an effect at a certain place is opposed by being not the cause of the effect at that very place, since when there is the affirmation of the one, there is necessarily the denial of the other. But being the cause of an effect at a certain place is not opposed by not being the cause of that effect at another place, since there is not necessarily the denial of the alternative.⁶⁹

For similar reasons, Udayana suggests, we must index causal properties in a temporal way, just as the spatial index restricted the appropriate kind of property opposition to a single place. Only “being the cause at this time” and “not being the cause at the very same time” are relevantly opposed.

Forced to accept such a temporal index, the Buddhist presents one final argument by prasaṅga, attempting to move from “causing y at t” to “causing y” without the temporal index:

⁶⁸Cf. ĀTV 138.
⁶⁹ĀTV 149.1–3: nāsti taddeśakāryakāritvaṃ hi taddeśakāryākāritvena viruddham tadvidhau tasya niyamena ni-ṣedhāt | na punar deśāntare tatkāryākāritvena tasyāniṣedhāt. The final clause, from na punar, is missing in the 2008 edition, likely due to eyeskip in copying the 1939 edition.
"That thing x which, at a single time, causes y, that x, to the extent that it exists, just causes y,⁷⁰ as a certain sound produces another sound.” Let this be the prasaṅga.

And its viparyaya: “That thing x which, at a certain time, does not cause y, that x always [at all times] does not cause y, just as a piece of stone does not cause a sprout.

And the seed placed in the granary, at a certain time, does not cause a sprout.”⁷¹

Udayana presents his opponent with a dilemma: Should these arguments be understood with reference to an entire class, or to an individual? In the former case, the reason property is defective by being inconclusive (anaikāntika)—the pseudo-reason marked as H₃ₐ, in my classification from chapters 3 and 4. In the latter case, then an alternative explanation is available, which undercuts the Buddhist’s prasaṅga: If something is never at any time an instrument, this can be explained by its lack of capacity (sāmarthya), or if it is capacious, by its lacking a connection with the cooperating causes.⁷² The objector must, therefore, accept that (immediate) instrumentality is always properly indexed to a specific time and place.

5 Conclusion: A Robust Account of Causality

By the end of the Anvaya Section, then, Udayana has presented a coherent alternative to the Buddhist’s view of causality, and has supported that alternative by various inferences and instances of hypothetical reasoning (prasaṅga arguments, as a mode of tarka).

On Udayana’s account, things possess various causal capacities as fixed parts of their nature, but the corresponding effects are produced only in the presence of the appropriate cooperating

⁷⁰That is, x cannot but produce y.

⁷¹ ĀTV 151.8–12: yad ekadā yat karoti, tad yāvat sattvaṁ tat karoty eva yathā kaścicśabdaḥ śabdāntaram iti prasaṅgo ’stu | viparyayas tu yad ekadā yan na karoti, tat sarvadaiva tan na karoti yathā śilāśakalam āṅkuram | na karotī caikadā kuśūlasthaṃ bijam āṅkuram iti cet. This prasaṅga-viparyaya pair may have helped to lead the classical commentators astray, in their understanding of the prasaṅga method generally. We see that here, the viparyaya is not the contraposition of the prasaṅga, but merely its inverse. This is unlike the prasaṅga-viparyaya pairs used by the historical Buddhist epistemologists, and also unlike the prasaṅga-viparyaya pairs deployed earlier in the ĀTV by Udayana himself.

⁷² ĀTV 154.
causes. Thus, nothing about the primary cause (e.g., the seed in the case of a sprout) needs to change. When we consider instead the property of being the immediately efficacious causal instrument for some effect, we see that, just as this property must be spatially indexed (such that the effect arises only in a particular place relative to the cause), it must also be temporally indexed. The appropriately indexed properties “being the instrument at t₁” and “being a non-instrument at t₂” are then not opposed, and can both be had by a single persisting thing.

While Udayana deploys several formal inferences (anumāna) in the course of the Anvaya Section, he is primarily concerned simply to clear the way for his forthcoming persistence inference.⁷³ To accomplish this goal, he merely needs to argue by hypothetical reasoning (tarka), to undermine the Buddhist’s confidence in the inference from existence for establishing universal momentariness. In the course of such reasoning, Udayana is happy to accept the Buddhist’s method of reasoning by prasaṅga and its contraposition, even offering two pairs of such arguments himself. We see that the Buddhist’s arguments fail not by employing a method which is in itself illicit, but rather by choosing ineffective reason and target properties for the prasaṅga and its contraposition.

Given these problems with the Buddhist’s arguments, and the possibility of an account of causality which is compatible with persistence, the Buddhist is unable to use prasaṅga and its contraposition to provide the similar example of an existing, momentary thing which is required for the inference from existence. By the Buddhist’s own lights, then, that larger inference fails, since positive concomitance (anvaya) is unestablished.

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⁷³Raghunātha (ĀTV(R) 64.9) indicates that, for at least part of the Anvaya Section, Udayana is engaged in adversarial debate (jalpa), a form of debate wherein both parties have a thesis of their own to defend, but the primary concern is with defeating the opponent’s view. Bhagiratha (ĀTV(Bh) 64.2) discusses the possibility of destructive debate (vitaṇḍā). See section 4 of chapter 7 for the typology of three kinds of debate, of which jalpa is the second. In the Vyatireka Section, as Udayana himself makes clear, the debate will be primarily in the third register, destructive debate (vitaṇḍā).
In the succeeding portion of the ĀTV, the Vyatireka Section, Udayana goes on to consider problems with the negative concomitance in the inference from existence. I turn to this topic in the next chapter.
Chapter 7

Negative Concomitance in the Inference from Existence

1 The Challenge to Negative Concomitance

1.1 Introducing the Critique

At ĀTV 167.6, Udayana transitions to the second portion of his critique of the inference from existence, which I have labelled the Vyatireka Section, saying

And by this [defeat of the positive concomitance between existence and momentariness], the negative concomitance (vyatireka) is also refuted.¹

The claim is that the considerations adduced up to this point, showing that the positive concomitance (anvaya) is unestablished, also serve to undermine the negative concomitance. These arguments demonstrated that the Buddhist is unable to get any individual entity out of the inferential locus P and into the similarity class SP. While Udayana and his fellow Naiyāyikas detach

¹ĀTV 167.6: etena vyatirekapakṣo ’pi nirastah. The brackets indicate Śaṅkaramiśra’s gloss in his commentary on the passage (ĀTV(ŚM) 167.12: eteneti | sattvakṣanikatvayor anvayavyāptibhaṅgenety arthah.).
positive and negative concomitance, acknowledging the acceptability of “negative-only” (*kevala-vyatireki*) inferences, the Buddhists do not, requiring both relations to hold, as distinct conditions on the inference. So, according to the Buddhists’ own account of inferential reasoning, refuting one is sufficient to undermine the other.²

But Udayana is not content to stop there. In what follows, he sets aside these concerns about positive concomitance, and argues directly for the impossibility of proving the negative concomitance (*vyatireka*).

He continues:

And furthermore, there is the absence of any epistemic instrument for establishing the locus, reason, and example here, since there is not the functioning of an epistemic instrument where there is not a real [existing] entity (*vastu*), since, when there is the arising of an epistemic instrument, there is the impossibility of falsity (*alīkatva*).³

In mentioning the “locus, reason, and example,” Udayana is referring not to (the elements of) the inference from existence itself, but to the statement of negative concomitance which figures in that inference. Udayana’s commentator Śaṅkaramiśra states the negative concomitance straightforwardly:

That which is not momentary is not existent, like the hare’s horn.⁴

²This seems to be what Śaṅkaramiśra has in mind at ĀTV(ŚM) 167.13–15, when he explains: “Because you [the Buddhist opponent] do not accept positive-only inferences, the negative pervasion must be stated by you in this way: ‘That which is not momentary is not existent, like the hare’s horn.’ But the negative pervasion is pervaded by the positive pervasion. Since there is not the positive pervasion, then there is also no negative pervasion.”

Alternatively, if we accept both the Nyāya model of inference (admitting positive-only and negative-only inferences) and the success of Udayana’s critique of positive concomitance in the preceding section (according to which positive concomitance is unfounded primarily on account of the lack of any similarity class SP), then it falls to the advocate of momentariness to demonstrate that he has a negative-only inference, by providing the proof of negative concomitance.

³ĀTV 168.4–6: adhikaśca tatrāśrayahetudṛṣṭāntasiddhau pramāṇābhāvaḥ | avastuni pramāṇāpravṛteḥ | pramāṇa-pravṛttāvalikatvānupapatteḥ.

⁴ĀTV 167.13: yan na kṣaṇikam, tan na sat, yathā śaśaviśānam. Raghunātha, meanwhile, provides an expanded gloss, relying on the Buddhist objector’s identification of existence with causal efficacy in succession or simultaneity: “That which is devoid of succession-or-simultaneity is not existent, like a hare’s horn. And a persisting thing is devoid of succession-or-simultaneity. Thus, the proof of non-existence, for persisting things.”
CHAPTER 7. NEGATIVE CONCOMITANCE

Here, the locus will be one or more entities which are known to be non-existent. The reason, which must be shown to belong to these non-existent things, is the property of non-momentariness. And the example is a particular non-existent, momentary thing, such as the horn of a rabbit. Minimally, Udayana’s Buddhist opponent needs to prove two things, with the appropriate level of epistemic certainty. First, he must show that the son of a barren woman, the horn of a rabbit, or some other such thing, is non-momentary. Second, he must show that that same thing (the son of a barren woman, the rabbit’s horn, etc.) is non-existent. If the Buddhist can do these two things, he will have provided the required instance of the negative concomitance. Udayana’s claim is that it is impossible to establish this negative concomitance for the momentariness inference, just because it is impossible to think, in any reliable way, about any of these non-existent things and their properties.

Initially, Udayana formulates the problem in terms of linguistic usages (vyavahāra). The question is whether or not expressions like “The son of a barren woman does not exist,” “The rabbit’s horn does not exist,” “The son of a barren woman is non-momentary,” and “The rabbit’s horn is non-momentary,” which are without any basis in the epistemic instruments,⁶ are in any way to be accepted.

Udayana will consider three progressively weaker ways in which we might deploy linguistic expressions about, or our concepts of, non-entities:

1. making predications, in general, of non-existent subjects,

2. making specifically negative predications of non-existent subjects, and

3. merely cognising of mentioning the non-existent subject, without making any predications at all.

⁵All of these examples are Udayana’s own, and are used throughout the Sanskrit philosophical literature.

⁶That is, they are aprāmānika.
He begins critiquing the practice of making predications, in general, with regard to non-entities. He then examines a more circumscribed view, according to which certain negative predications of non-entities are acceptable, while positive predications are not. On this view, “The son of a barren woman is non-existent” and “The son of a barren woman is a non-speaker” would be legitimate usages, while “The son of a barren woman is a son” or the “The son of a barren woman is a speaker” would be illegitimate. The refutation of this view concludes (at ĀTV 190–191) with Udayana’s statement of the correct view that “the epistemic instruments alone are the limit of regularity of linguistic expressions,” such that positive and negative predications (and contrary predications of other sorts) are equally unfounded. Finally, in response to a new proposal by the objector, Udayana considers the standards for the mere coherent mention, without any predication, of non-entities. The objector proposes that, even if Udayana is correct that predicative cognitions of the form “The hare’s horn is P” are incoherent, simple cognitions like “hare’s horn” may still be acceptable. So, throughout his entire discussion of negative concomitance, Udayana is dealing with our thought and talk about non-entities. He first considers predication in general, then the special case of negative predication, then bare cognition without predication.

Curiously, Udayana’s discussions of the second and third of these divisions use entirely different examples. We might distinguish between two varieties of unreal things: those which are (logically, conceptually, etc.) impossible, and those which, while non-actual, are still in some sense possible. The son of a barren woman exemplifies the first variety, while the rabbit’s horn is an example of the latter. While neither Udayana nor his commentators provide an explicit pair of terms for this distinction, Udayana does consider the two cases separately, in distinct parts of the Vyatireka Section. The son of a barren woman is examined exclusively at ĀTV 180–190, during
the debate over the alleged difference between positive and negative predications (i.e., in what I have labelled the second division, just above). The rabbit’s horn is discussed later (beginning at ĀTV 192), where the discussion is not about an unreal entity’s properties, but rather is concerned with the cognition of the hare’s horn itself (i.e., thinking of or speaking about the hare’s horn, but without predicating anything of it).

1.2 The Plan for this Chapter

The plan for the remainder of this chapter is as follows. Broadly, sections 2 and 3 provide the necessary context, while sections 4—6 follow the main themes of Udayana’s text, in the order in which he presents them.

In section 2, I will present some distinctions from Udayana’s ontology, in order to make clear exactly what he means by the expression “X does not exist.” This section concludes (in §2.5) by considering the contrasting interpretation of “X does not exist” employed by Udayana’s Buddhist objector. Section 3 introduces an additional conceptual distinction, favored by the Indian Buddhists, regarding mental images. The context having been properly set, the remaining sections will follow the order of the ĀTV, in examining each of the three ways, mentioned above, of deploying linguistic expressions about non-entities.

Section 4 examines the divergent argumentative strategies and goals of Udayana and his opponent, in the context of making predications of non-entities in general. The argument of this section is that because Udayana and the Buddhist have different burdens in this dialectic—the Buddhist to provide conclusive certainty about the non-momentariness of some non-existent object, Udayana merely to generate doubt, in preparation for the conclusive inference for persistence which appears later, in ĀTV I.3—Udayana’s mention of non-entities in the course of the possibility of being made into something else is explained in terms of temporal absence (prāgabhāva). See especially note 16 on page 184.
refutation is entirely legitimate, while the Buddhist’s predications are not. This corresponds to pages 168–176 of the Ātmatattvaviveka.

Section 5 presents Udayana’s refutation of the alleged distinction between positive and negative predications. Udayana argues that the epistemic instruments alone are the limits of cognitive and linguistic regularity; thoughts or utterances which do not ultimately originate in the epistemic instruments are entirely devoid of content or meaning. This is discussed in ĀTV 177–190.

Finally, section 6 considers simple, non-predicative expressions. This will include Udayana’s defense of a theory of error based on superimposition, as well as his refutation of any intermediate third way between, on the one hand, properly regular cognitions which are based in the epistemic instruments and, on the other hand, cognitions which are utterly devoid of any regularity or reliable indexing. Udayana presents these arguments in the last portion of his critique of the inference from existence (ĀTV 192–220).

2 Negative Ontology

Before examining Udayana’s arguments about our knowledge of, and reference to, non-existent objects, it will be helpful to clarify what it means for something to be non-existent. Within the ontological framework Udayana inherits from the Vaiśeṣika philosophical tradition, there are three distinct levels on which we could explain the expression “X does not exist”/“X is not” (tan nâsti).

According to the Vaiśeṣika philosophers, every item necessary for giving a complete inventory of the world is contained within one of seven categories (padârtha): substances, qualities, motions, universals, individuators, inherence, and absences. These categories may, in turn, be grouped in various ways.

I will consider, in turn, three possibilities for interpreting “X is not” within the Vaiśeṣika ontology inherited by Udayana: the distinction between positive beings and absences, the dis-
tinction between real entities and unreal non-entities, and the state of having a relation (or not) to the universal “existence.” Once these three options are on the table, I will consider the usage of Udayana’s Buddhist opponent in this section of the Ātmatattvaviveka. The diagram in figure 7.1, on page 186, will help to organise this discussion.

2.1 Option 1: Positive Beings and Absences (Bhāva/Abhāva)

The first major division is between absences (the seventh category) on the one hand, and positive beings (the other six categories) on the other. Positive beings, Udayana explains, are “the cognitive objects of cognitions whose cognitive object is expressible without a negative particle,”¹⁰ including the ordinary particulars which comprise the first three categories, along with the other metaphysically necessary entities (universals, individuators, and inherence) which make up the next three categories. Absences (abhāva), the cognitions of which are necessarily expressed with a negative particle,¹¹ are genuine, locatable, causally efficacious features of the world, which can even be perceptible under the appropriate conditions.¹² Nevertheless, they are intimately connected with the positive beings which comprise the other six categories, in that every absence is “the absence of X,” where X is some specific absentee (pratiyogin).

Absences are of four kinds. Mutual absence is simple non-identity with some other thing.¹³ Everything which is not the pot possesses mutual absence of the pot. We invoke such an absence when we say “the cloth is not the pot.”¹⁴

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¹⁰LĀ 4: nañarthaviṣayatvarahitapratyayaviṣayo bhāvah.
¹¹LĀ 206: nañarthaviṣayapratyayaviṣayo ‘bhāvaḥ.
¹²Indeed, giving rise to perceptual cognitions is one of the ways in which absences are causally efficacious, and the phenomenal differences between the positive and negative cognitions—e.g., where the former is of the bare floor or the empty doorway simpliciter, and the latter is of the absence of a pot on the floor or the lack of a man in the doorway—suggests that there are two distinct effects, which require distinct causal explanations. (And for the Indian philosophers, like their pre-Humean counterparts in the West, causes are paradigmatically things, not events.)
¹³Strictly speaking, Udayana says that the counterpositive of a mutual absence is identity (with that other thing). So where the pot possesses “identity with the pot” (ghatatādatmya), the cloth possesses “absolute absence of the pot” (ghatānyonyābhāva). See LĀ 210, tādātymapratyayikā ‘bhāvo ‘nyonyābhāva.
¹⁴cf. KTBh 88.11.
The other three types of absence are collectively known as relational absences (saṁsargā-bhāva), and are defined in terms of their temporal limits. Prior absence is “that absence which has only one limit, at a subsequent time,”¹⁵ which is to say, it has no beginning, but does come to an end at some future time. The stock examples include the absence of a pot found in the lump of clay which will, at some time in the future, be made into a pot, or the absence of cloth which is found in the threads, before the weaver joins them on his loom. But because that clay will not (indeed, cannot) be made into cloth, the clay does not possess a prior absence of cloth.¹⁶

Similarly, Udayana defines posterior absence as “that absence which has only one limit, at a prior time.”¹⁷ Such an absence comes to be at a particular time, but then continues to exist forever. The posterior absence of the pot is found in the potsherds, after the pot has been shattered.

Finally, absolute absence is “the relational absence which is devoid of limits in both temporal directions.”¹⁸ The stock example is the absence of a pot, which absence is located on the floor; we say “there is no pot on the floor.” Unlike mutual absence, where we denied the identity of the locus and the absentee, with an absolute absence, we deny some other relation between locus and absentee. In this example, the other relation is the relation of conjunction in space.

This account of absences as part of the fundamental, objective structure of the world may strike some as a wanton multiplication of entities. To a certain (but limited) extent, this is the price of the Vaiśeṣikas’ direct cognitive realism, which has great ontological parsimony elsewhere, in that it does not require mental duplicates of physical objects, to function as the direct

¹⁵LĀ 208: uttaraikāvadhir abhāvaḥ prāgabhāvaḥ.
¹⁶For Udayana and his school, such an absence is to be understood temporally, and not modally. Contrast this with the Aristotelian/Scholastic doctrine of potency, which is a modal concept. The clay possesses the prior absence of pot only if the clay is actually made into a pot in the future. It has potency with regard to becoming a pot, regardless of whether or not it is ever actually made into one.
¹⁷LĀ 209: pūrvaikāvadhir abhāvaḥ pradhvaṃsābhāvaḥ.
¹⁸LĀ 211: ubhayāvadhirahitaḥ saṁsargābhāvo ’tyantābhāvaḥ. “Relational” excludes mutual absence from the scope of the definition, while the lack of past and future limits excludes destruction and prior absence, respectively.
objects of cognition and as intermediaries between mind and world.¹⁹ But after such purely mental objects are ruled out,²⁰ the direct realist still requires objects for negative, as well as positive, cognitions. Those cognitive objects, in the case of negative cognitions, are absences.²¹ It does turn out, on this account, that we are surrounded by a great many entities which we do not ordinarily observe. Nonetheless, these entities do important philosophical work in accounts of causality and cognition, and even if they are not always observed, they are nonetheless observable under the appropriate conditions.²²

### 2.2 Option 2: Real and Unreal Entities (*Vastu*/Avastu)

At a higher level of generality, a second major distinction is available to the Vaiśeṣika. This is the difference between real entities (*vastu*) and unreal non-entities (*avastu*). Here, real entities just include all seven of the Vaiśeṣika categories; that is, the six categories of positive beings, together

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¹⁹ The Buddhist epistemologists are happy to accept such intermediate, purely mental cognitive objects, *ākāra*. This puts familiar pressure on the connection between these mental images and the physical objects in the external world, such that by the time of Jñānaśrīmitra, we find the Buddhist upholding a full-blown idealism.

²⁰ There are, on the Nyāya-Vaiśeṣika model, some special cases of cognitions whose cognitive objects happen to mental: most notably, higher-order cognitions, which have as their object either another cognition simpliciter, or a property which belongs to another cognition (such as the property of being knowledge, *prāmāṇya*; cf. section 3.3 of chapter 2). But while these cognitive objects happen to be mental, they do not in any function as intermediaries which convey or represent some other physical object. In these special cases, even the thorough-going realist says that the mental object is all there is.

²¹ In place of this Vaiśeṣika account of a locus possessing an absence, the alternative employed by the Buddhist epistemologists as well as, arguably, some Mīmāṃsakas (see Kellner 1996) is to analyse putatively negative cognitions as having only the locus as the object. That is, the positively-expressed cognition “There is a (bare) floor” and the negatively-expressed cognition “There is no pot on the floor” both have precisely the same object, the floor. The latter cognition is a different way of thinking about the same object; it is not a cognition of a different object.

²² An infinite multiplication of higher-order absences (e.g., the absence of the absence of the absence of a pot, which we might symbolise as ~~~X) is ruled out by identifying any first- or second-order absence (~X or ~~X) with the absence of the absence of that higher-order absence itself (~~X or ~~~X, respectively). The Naiyāyikas’ logic of absences thus resembles the rules of Intuitionistic logic for negation, according to which any application of the rule of double negation elimination is permitted, provided that the resulting expression still begin with at least one negation (so, the inference from ~~~X to ~X is permitted, while the inference from ~~X to X is not). The possible combinations which result from having four varieties of absence (as opposed to only a single kind of negation) add some extra complexities, but this is the basic principle.
Figure 7.1: Levels of (Un)reality in Classical Vaiśeṣika Ontology
with real absences (abhāva) in their four varieties. These, and only these, things are said to be nameable (abhidheya) and cognisable (jñeya).

What, then, are Udayana and his fellows doing when they say (if, in fact, they say it) that non-entities are not nameable or cognisable? Udayana’s opponent raises precisely this concern at the outset of the discussion, and I will examine these arguments in detail, beginning in section 4 below, and continuing to the end of this chapter. To anticipate part of the conclusion, the rejection of the cognisability and nameability of non-entities includes (1) denying that we can have a singular cognition of some non-entity rather than another, as well as (2) denying that we can have meaningful predicative cognitions in regard to a non-entity (i.e., that we can cognise a non-entity as being P, where P is any predicate whatsoever).

It will also turn out, on Udayana’s view, that all and only those things which are included in the seven categories of real beings have the capacity for causal interactions. Indeed, the seven categories are posited precisely because they are all necessary for providing an account of how and why the world is the way it is. Even absences (abhāva) play a variety of causal roles, accounting for production and destruction of material things, as well as for our negative perceptual awarenesses (e.g., “There is no pot here,” or “This man is not Devadatta”).

2.3 Option 3: Relation to the Universal “Existence”

There is also a third, trivial way that something can lack existence on the Vaiśeṣika ontology. Existence (sattā) is a real universal (sāmānya); that is, it is included in the fourth of the Vaiśeṣika categories. The universal existence (sattā) inheres in every substance, quality-particular, and motion-particular—that is, in every member of the first three categories. By contrast, nothing inheres in the members of the next three categories (universals, individuators, and inherence it-
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selves). These latter entities, then, have existence (sattva) by their own nature, but do not have a relation to the universal “existence” (sattā).²⁵ So, while “is-ness” (astiṣṭa)—which is, like sattva, a mere human appellation which does not pick out any objective constituent of the world—is common to all six categories of positive beings (bhāva), only the first three have a relation to the genuine universal “existence” (sattāsambandha). Given the Buddhist’s outright rejection of real universals, this interpretation of “X does not exist” in terms of relation to a universal will play no role in Udayana’s discussion in the Ātmattātaviveka.

2.4 Summary: A Vocabulary for Non-Existence

Drawing on the conceptual resources of his Vaiśeṣika tradition, Udayana is able to offer three different interpretations of “X does not exist,” at varying levels of generality or specificity. At each level, different Sanskrit technical terms can be employed to track the relevant existence/non-existence distinction.

At the level of least generality, among the six categories of positive beings, we can distinguish those things in which the universal existence (sattā) inheres from those in which it does not inhere. The former group includes all and only the first three categories of repeatable particulars; that is, substances, qualities, and motions. As a universal, existence (sattā) is itself an objective, cogniser-independent part of reality. It is only at this lowest level of generality that there is an objectively real property which is possessed by the things at that level.

At an intermediate level of generality, we can distinguish positive beings (bhāva) from absences (abhāva). This first six categories (substances, qualities, motions, universals, individuators, and inherence) are the positive beings, the cognitions of which are expressible without recourse

²⁵Note that the feminine and neuter forms—sattā and sattva, respectively—are, in this very special case, not equivalent. The feminine form is the name of a universal, which is one of the objective constituents of reality. The neuter form is a term invented by human beings, which does not pick out any objectively-existing thing(s).
to a negative particle in language. Positive beings alone are said to possess “is-ness” (*astitva*),²⁶ and exist on their own, in a non-derivative way. The cognitions of absences, by contrast, are expressible only by recourse to a negative particle. In every case, an absence has some counterpositive: a specific absentee which is itself a member of one of the seven categories. While higher-order absences (e.g., the absence of the absence of a pot) have another absence as their counterpositive, every one of these series is eventually grounded in a positive being. So, while the absence of the absence of the pot has the absence of the pot as its counterpositive, the absence of the pot, in turn, has a substance, the pot, as its counterpositive. In this way, absences have their being in a derivative way, and so lack is-ness (*astitva*).

Finally, at the highest level of generality, we can ask whether something is a real entity (*vastu*) or not. Real entities alone are causally efficacious, cognisable, objective constituents of the world. The class of real entities is composed of all the positive beings together with all the real absences.

A brief note on translation practices: I will reserve the term “entity” (or occasionally “real entity,” for emphasis) for translating *vastu*, and the corresponding term “non-entity” for translating its negation, *avastu* (occasionally adding the adjective “unreal” for emphasis). “Entity” and “non-entity” will mark exclusively this distinction at the highest level of metaphysical generality. I will use the term “thing,” meanwhile, for terms like *artha* where the Sanskrit does not carry any precise ontological commitments. The term “object” will likewise be ontologically uncommitted, while “cognitive object” will always translate the Sanskrit *viṣaya*, referring to whatever it is that a cognition is a cognition of. To mark the subdivision of entities, I will use “positive being” and “absence” exclusively to translate *bhāva* and *abhāva*, respectively.

Setting aside the distinction at the lowest level of generality, Udayana has two quite distinct ways for something to not exist. On the intermediate level, there are absences, which do not

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²⁶“Is-ness” (*astitva*) is not a true universal, but rather, a humanly constructed concept, lacking any objective object which it picks out. Since it itself has no place in the scheme of the categories, it is not an objective constituent of reality.
exist insofar as they are not positive beings (bhāva), but nevertheless are causally efficacious real entities. On the highest level, non-entities do not exist insofar as they are not entities (vastu), and on account of this non-existence are utterly unreal, and devoid of any causal efficacy whatsoever. Throughout this discussion, it will be crucial to distinguish (1) the division of positive beings and absences from (2) the division of entities and non-entities.

2.5 The Buddhist’s Account: An Intermediate Place for Absences?

Udayana’s Buddhist opponent will offer quite a different interpretation of “X does not exist.” Of Udayana’s three relevant distinctions, the Buddhist will acknowledge only one, with the consequence that there is no place, on his view, for absences as distinct both from positive beings and from non-entities.

For Udayana, absences occupy an intermediate position between positive beings and non-entities. They are distinct from positive beings in virtue of their being cognised in an essentially negative way, which is ultimately parasitic on the cognition of a positive absentee.²⁷ Yet they are also distinct from non-entities, insofar as absences possess causal powers, including the power to cause a perceptual cognition, while non-entities are completely causally inert.

The Buddhist has no principled way of maintaining such a distinct intermediate class of things. As we have seen earlier, the Buddhist holds that existence just is being causally efficacious. At least at first glance, this maintains Udayana’s distinction at the highest level, between real entities and non-entities. Among these real entities, the Buddhist explicitly denies the distinction between positive beings and absences. Where Udayana, as a good direct realist, acknowledged two distinct classes of objects, to correspond with the distinction between essentially positive and essentially negative cognitions, the Buddhist treats negative cognitions as merely different modes of conceptualising or expressing the very same objects as positive cognitions. That is, the

²⁷In the case of higher-order absences, the immediate absentee is also an absence, but the series of absences will ultimately be grounded in a positive being as the first absentee.
positive cognition of the (bare) floor and the negative cognition that there is no pot on the floor have precisely the same object: the floor alone. On this account, there are no essentially negative cognitions.

Because the Buddhist account respects only one of Udayana’s two divisions, the language found in Buddhist philosophical texts (as well as recent commentaries thereon) is notably less precise than the Nyāya-Vaiśeṣika vocabulary discussed in section 2.4 above. This terminological confusion revolves around the term abhāva, “absence.” A summary of a Buddhist (“Yogācāra-Sautrāntika”) argument for the imperceptibility of absences, offered by Mark Siderits, is instructive:

Their position is in part dictated by their claim that absences are not real entities. Since perception requires, on the Yogācāra-Sautrāntika view, causal interaction between the entity perceived and our sense organs, and only reals can causally interact, absences could not be perceived. (1991: 113)

We can reconstruct the argument as follows, retaining Siderits’ ambiguous term “real” (which I mark here with a star, to indicate that it is not yet to be understood in any technical sense):

1. Perception of (an object) O requires causal interaction between a sense-organ and O.
2. Only reals* can causally interact.
3. Absences are not reals*.

Therefore, there is no perception of absences.

The first premise, in the classical Indian intellectual context, is uncontroversial. The problem with this argument, from Udayana’s perspective, is that it fails to respect the distinction between positive beings (bhāva) and real entities (vastu). That is, if “real*” is supposed to translate “positive being” (bhāva), then premise (3) is a tautology (of course bhāva is not its negation, abhāva), but premise (2) is false: both positive beings and real absences have causal powers. If, however, “real*”
is supposed to translate “(real) entity” (vastu), then Udayana can accept premise (2), but must deny (3), since the class of real entities includes both positive beings and absences. So if we respect the distinction between bhāva and vastu, then there is no univocal reading of “real*” on which the argument is sound. The realist’s burden, then, is to defend such a principled distinction, according to which the class of real entities is more expansive than that of mere positive beings, such that some non-existent things (namely, the absences) are real entities, while other non-existent things are non-entities.

In summary, then, the Buddhist acknowledges something akin to Udayana’s distinction between entities and non-entities based on having (or not having) causal efficacy, but he elides any distinction, within those real entities, between positive beings and absences. (He also denies the corresponding distinction between essentially negative cognitions, which are expressible only by way of a negative particle, and essentially positive cognitions, which are expressible without the negative particle.) For the Buddhist, everything is either a positive being or an utterly unreal non-entity.

3 Objects and Contents

While he ignores Udayana’s distinction of real absences from both positive entities and totally unreal non-entities, the Buddhist brings one additional distinction to the table, of which Udayana is well aware, but which he does not employ in his own account of cognition. This is the notion of a mental image (ākāra) as the direct object of our cognitions.

On Udayana’s direct realist account of cognition, there are only two main components: cognitions, and real (normally external) objects in the world. A cognition gets to be a cognition of a pot, say, just in virtue of the cognition (which is a quality inhering in a human soul (ātman)) relating directly to an actual particular pot, which exists somewhere in the world, and is inhered in by the universal “potness.” Without the real pot to serve as cognitive object, there can be no
pot-cognition. This is because, on this account, the cognitive object (viṣaya) is just the real external object (bāhyārtha).

On the Buddhist’s account, however, there are (typically) three main components: cognitions, mental images, and real external objects. These mental images, which are constructed by the human cogniser, are the cognitive objects (viṣaya). So where Udayana’s more economical account required only a single relation, between cognition and object, the Buddhist’s account requires two relations: one between cognition and mental image, and another between mental image and a real external object of which it is the image.

In the case of thought and talk about non-entities, there will be no real object to occupy the final place in either of these accounts. On Udayana’s model, this will lead directly to incoherence, as there will be nothing in virtue of which the cognition of the son of a barren woman is the cognition of the son of a barren woman, as opposed to being the cognition of a sky-lotus, or the cognition of some other non-entity. There will be no regulator (niyāmaka) to distinguish various cognitions from each other, or to determine which predications are appropriate. We will have only a heap of undifferentiated cognitions.

The Buddhist hopes to avoid this absurdity by interposing mental images between cognitions and external objects. This way, even if the external object is wanting, as in the case of non-entities, the Buddhist can still point to the mental images to differentiate the cognitions of various non-entities, and to determine the appropriateness of various predications in regard to those non-entities. The Buddhist will end up positing two different forms of cognition. As Ratnakīrti explains,

It is not the case that cognition has only a single form, with regard to both entities and non-entities. Because a real entity has [genuine] causal capacity (sāmārthya), there is both direct and indirect cognition of a real entity, that is, perception, inference, and conceptual construction which is based on perception. But in the case of
a non-entity, because it lacks any [genuine] causal capacity, the cognition is only a mere conceptual construction.²⁸

So, the considerations adduced by Udayana in this portion of the ÅTV, as he shows the difficulties in accounting for cognitions of non-entities, will serve as the beginning of a critique of the Buddhist’s account of cognition in general, and of his theory of conceptual construction via exclusion (apoha) by which the requisite mental images are generated. That critique will not be completed until later in Udayana’s text; the theory of conceptual construction via exclusion is the explicit target of ÅTV I.⁴, while the need for external objects occupies the lengthy ÅTV II.

4 The Register of the Dialectic

Udayana’s basic claim is that the locus, reason, and example involved in the statement of negative concomitance are all unestablished, and so the objector cannot coherently entertain the cognitions “All non-momentary things are non-existent,” or “The hare’s horn is non-existent” in any way which is both reliable and consistent with the very claims about momentariness and (non-)existence which these cognitions are intended to support.²⁹ Predicating such an unreal property of such an unreal thing, Udayana claims, is simply impossible.³⁰

The objector immediately responds by accusing Udayana of self-contradiction. If what Udayana says were true, the objector claims, then in the absence of any well-established usage for

²⁸RNA 86.7–10: pratītir vastavavasunor ekarūpā na bhavati | sākṣātpārampayena vastusāmarthyabhāvinī hi vastu- pratītiḥ | yathā prayāṣam anumānam prayaksapṛṣṭabhāvī ca vikalpah | avastunas tu sāmarthyābhāvād vikalpaṁā- tram eva pratītiḥ.

²⁹Udayana himself can entertain the first of these, since there are (as he is well aware) a great many non-momentary things for him to think about. These are the persisting objects of ordinary experience: chairs, tables, pots, and the like. But because Udayana and his Buddhist adversary do not agree about the status of any of these things with regard to their (non-)momentariness, they will be unestablished for the purpose of the present debate, including for any inference-for-others which either Udayana or his opponent might proffer. As ever in these Indian debates, it is crucial to attend closely to whose conceptual framework an argument is presented within.

Since the hare’s horn, as a non-entity, is not among the non-momentary things which Udayana acknowledges, even Udayana will have to consent that the latter cognition, “The hare’s horn is non-existent,” cannot in any way be coherently entertained.

³⁰Recall the exposition of the negative concomitance, beginning on page 178 above.
thinking about, and referring to, these non-existent things, Udayana would be unable to entertain his own statement. The refutation would be self-refuting.³¹ That is, given the truth of his incoherence claim, Udayana himself should be unable to coherently refer to these non-entities, even for the limited purpose of refuting the Buddhist. Udayana must admit that statements of his own view, like “The hare’s horn is not coherently cognisable,” are just as problematic as the Buddhist’s statement “The hare’s horn is not existent.”

In this section of the ĀTV, then, Udayana needs to show that this apparent self-contradiction is not damning for his position. That is, he must show that the incoherence claim is a problem for his opponent’s view, in a way that is not also a problem for his own view.

### 4.1 Three Types of Debate

Udayana replies to the objector by distinguishing three different modes of intellectual discourse (kathā): constructive debate (vāda), adversarial debate (jalpa), and destructive debate (vitaṇḍā). This classification is not original to Udayana, but is found in many of the earliest Indian treatises on logic and debate, including the Nyāyasūtra.³² In another text, Udayana defines the three types of debate in this way:

Debate (kathā) is a collection of utterances on the part of speakers, whose objectives are opposed to one another, in regard to the establishing of something to be proven. And it is of three kinds. Constructive debate is the preeminent kind of debate, whose goal is a [conclusive] statement which results only from statements which are grounded in the epistemic instruments. Adversarial debate is that debate in which there is proof given by each of the two parties who are striving for victory. Destructive.

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³¹ cf. ĀTV 168.6–7: evaṃ tarhy avyavahāre svavacanavirodhaḥ syāditi cet.
³² The three varieties of debate are defined in NS 1.2.1–3.
Debate in general is defined in the first sentence, as a verbal exchange between two parties, where the proof (or establishment) of some claim is at issue. The different varieties are then distinguished according to the goals of those two parties and the methods they employ in order to achieve those goals.

In constructive debate, the shared goal of both parties is to arrive at (a better understanding of) the truth. Here, each of the two debaters has his own thesis, which he is attempting to defend. The paradigm for such a debate is the exchange which occurs between a teacher and a student. Because the only admissible premises are those which are delivered by one of the epistemic instruments, and the only legitimate argumentative moves are those which present a genuine inference, a constructive debate will result in epistemic certainty (nirṇaya). Provided that the debate has any resolution at all, both parties leave with knowledge (pramāṇa), in the epistemically loaded sense discussed in chapter 2.

In adversarial debate, by contrast, the primary goal of each party is to achieve victory over the other. While each party has his own thesis to defend, the advocacy of his own thesis, and the refutation of his opponent’s thesis, can come about through a variety of rhetorical strategies, which are not confined to the scope of the epistemic instruments. Because the argumentation is not grounded exclusively in the epistemic instruments, such a debate need not result in certain knowledge of the victor’s thesis.

Finally, destructive debate differs from adversarial debate in that only one of the two parties is trying to defend a thesis of his own. His opponent is concerned exclusively with defeating him, without attempting to establish any thesis at all. Like adversarial debate, replies which are

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³³LM 7.2–5: sādhyaavyavasthiteye vyāhatavisayananāvakraṇtikavāyasyadamadbhikah kathā | sā trividhā | tatra prāmāṇikavacanamātravacanābhīpāyapūrvikā kathā vādah | vijigishamāṇayor ubhhyayor api sādhanavati kathā jalpaḥ | sa pratipakṣasthāpanāhinā vitanḍetī sugamaṃ sūtram. The definition of vitanḍā is an exact quotation of NS 1.2.3.
not grounded in the epistemic instruments are fully acceptable, and even expected. Once again, victory need not result in epistemic certainty. Indeed, in the case of victory by the second party (the respondent), there is no thesis about which certainty might possibly be had.

We should note that multiple types of debate may appear over the course of a single extended conversation, or within a single philosophical treatise (which is structured so as to represent such a conversation). That is, the register of the dialectic can shift, such that different arguments may have different goals (whether the production of knowledge, establishing a thesis without certainty, or mere refutation), and such that different methods are, or are not, acceptable at any given point in the course of those arguments.

For understanding the exchange in the Ātmatattvaviveka, the critical term is prāmāṇika, “grounded in the epistemic instruments,” which appears in Udayana’s definition of constructive debate. In order for the Buddhist’s inference from existence to succeed, there must be knowledge of the negative concomitance, and knowledge, by definition, is generated by the epistemic instruments. This is just to say that the cognition of the negative concomitance must be prāmāṇika, grounded in the epistemic instruments.

The key point, which has been neglected in earlier studies of the ĀTV, is that the goals and standards for the argument are different, in a principled way, for Udayana and his Buddhist opponent. The Buddhist enters the discussion with what he takes to be a genuine inference.³⁴ By definition, such an inference would give him epistemic certainty about the momentariness thesis. The Buddhist is concerned with defending that inference, showing that it is in fact productive of knowledge. His argumentation must therefore be grounded in the epistemic instruments.

As discussed in chapter 4, on the Nyāya account, inference can only begin from doubt. So before Udayana can present his own inference for the persistence thesis his interlocutor must be in

³⁴In fact, the Buddhist takes himself to have two such inferences: the inference from existence, which is presently under consideration, and the inference from the inevitability of destruction, which Udayana considers in the following section of the ĀTV.
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a state of doubt as to whether or not things persist. Because his opponent enters the conversation with the conviction that comes of (seeming) epistemic certainty, Udayana’s goal in this first section of the chapter is merely to clear the playing field, returning his opponent to a state of doubt. Udayana is thus engaging in pratikūlatarka, hypothetical reasoning which is unfavorable to the view at hand. While some portions of his argument may in fact serve to establish, by pramāṇic means, certain truths about the world, Udayana’s overall goal in the first portion of the chapter is merely one of refutation. Only when he has dispensed with the Buddhist’s (pseudo-)inferences for momentariness will Udayana turn to presenting his own inference for persistence, followed by anukūlatarka, hypothetical reasoning which is favorable to the view at hand (i.e., his own correct view of persistence, which has by then been established by inference).

Given these different concerns of Udayana and his Buddhist opponent, which of the three varieties of debate should they employ? The Buddhist, who has the higher standard insofar as he is trying to defend an inference, should be aiming for constructive debate, entirely grounded in the epistemic instruments. Udayana meanwhile has a lower standard. Since Udayana’s goal is merely to undermine his opponent’s false sense of certainty, Udayana can legitimately argue at the level of adversarial, or even destructive, debate, and still achieve his objective. So as soon as the debate is forced out of the highest register (i.e., as soon as we are forced to give up on constructive debate), the Buddhist has lost critical ground. Because of their different concerns, Udayana can be perfectly content arguing in the lower registers, while the Buddhist cannot.

4.2 Applying the Theory: What is the Register?

Now assume that the Buddhist’s initial objection to Udayana has merit, and Udayana is faced with opposition by his own words. How does this help the Buddhist to account for his verbal usages about the hare’s horn and the like? Ordinarily, we would expect some appeal to the epistemic
instruments in grounding such an account. Udayana offers three suggestions for how the charge of self-refutation might be understood in this context:

1. We discover the/an epistemic instrument, just by means of this “opposition by one’s own words.”

2. Udayana’s expression (vyavahāra), which denies the expression of the Buddhist, is refuted.

3. Because of the self-contradiction which results from the attempt to deny an expression about non-existent objects, such an expression, even though it is not grounded in (one of) the epistemic instruments, should nevertheless be necessarily accepted.³⁵

In order to fully understand the three options, we must consider the register of the dialectic, together with the standards for successful argumentation and epistemic status of the results, as both of these are determined by that register. That is, Udayana asks us to consider explicitly whether the argument operates at the level of constructive, adversarial, or destructive debate.

The first option presumes a conversation in the highest dialectical register: constructive debate, which must be grounded in the epistemic instruments. This option is quickly refuted. No matter how many contradictions we observe, this will never demonstrate that either perception or inference operates in regard to utterly unreal things like the hare’s horn. Since the Buddhist acknowledges only these two epistemic instruments, neither of which has contradiction as one of its defining characteristics, the Buddhist’s self-contradiction objection does nothing to provide the desired epistemic certainty. “Opposition by one’s own words” is not an epistemic instrument, and therefore does not provide an argument which meets the standards of constructive debate.

The second option is also to be considered from the perspective of constructive debate. Udayana tells us that “the second option is accepted by those who are rooted in the epistemic instruments.”³⁶ Here, “rooted in the epistemic instruments” (prāmāṇika) refers to the two disputants,

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³⁵ĀTV 168.7–10.
³⁶ĀTV 170.15: dvitīyas tv isyata eva prāmāṇikaiḥ.
who are engaged in constructive debate. In this context, since neither Udayana and his opponent have a statement which is grounded in the epistemic instruments, they should both be silent. They cannot attempt a constructive debate, and Udayana is happy to acknowledge this. If all parties must remain silent, then the Buddhist will not have demonstrated (the truth of) the momentariness thesis.

Udayana’s examination of the third option makes clear that the register for the remainder of the section must be adversarial or destructive debate. Why, he asks the objector, should a linguistic expression (vyavahāra) which is not rooted in the epistemic instruments be accepted necessarily?³⁷ The objector can only appeal to that expression’s being somehow firmly accepted, or established in some other way.³⁸ But we know the rule of constructive debate: a usage is established only if it is established by an epistemic instrument. Having abandoned the epistemic instruments in his appeal to self-contradiction, the Buddhist can now argue only at the level of adversarial or destructive debate. Yet in these other modes of philosophical discourse, there is no requirement for an epistemic instrument. The debate will be lost only by self-contradiction on the part of one of the disputants, or by his failure to respond in some way to his opponent’s argument.

At this level, Udayana no longer faces self-contradiction. His initial objection to the Buddhist was that no epistemic instrument can establish the required locus, reason, or example. But now that we have abandoned constructive debate, the lack of an epistemic instrument does not defeat Udayana’s argument, which he fully admits contains no such instrument (and is therefore not, strictly speaking, an inference).

In the article which accompanies his translation of this portion of the ĀTV, Matilal (1970: 91) suggests that Udayana

³⁷ĀTV 174.11–12: tṛtiye tv prāmāṇikaś cāpy avaśyābhypagantavyaś ceti kasyeyamāññeti bhavāneva praṣṭavyah.
³⁸ĀTV 174.12–13, 14.
appears to settle for 'superficial' self-contradiction because, in formulating the principle that nothing can be affirmed or denied of a fictitious entity [in my terminology, a non-entity] like the rabbit’s horn, Nyāya is in fact violating the same principle. Nyāya feels that this 'superficial' self-contradiction is less objectionable because it can somehow be explained away... 

But this is to ignore Udayana’s careful work in determining the register of the dialectic. At the level of constructive debate, the statement that “nothing can be affirmed or denied of a non-entity” is just as objectionable as any statement the Buddhist might make which predicates non-existence of a non-entity. Udayana explicitly acknowledges this, which is precisely why, for most of the chapter, Udayana is not engaging in a constructive debate. If the Buddhist were to refrain from attempting his impossible predications, then Udayana, too, would keep silent. But because the Buddhist attempts to discuss the hare’s horn and the like, Udayana enters into a debate in a lower discursive frame, solely for the purpose of refutation. Here, where the discussion actually takes place, Udayana is not seeking to establish a thesis, whereas the Buddhist must do exactly that. So it is not the case that some “superficial self-contradiction is less objectionable because it can somehow be explained away.” Rather, Udayana need not assert the contradiction at all, and there is a very good explanation for his practice.³⁹

In what follows, then, the Buddhist has a new project. He must find some way to make his statements about non-entities come out coherently. His first attempt will be to distinguish a privileged group of negative predications, which unlike their positive counterparts can be expressed coherently. In this way, the objector would like to show that his own predications are less objectionable than those of Udayana. I will consider the arguments for this position in section 5.

When Udayana has refuted that position, the discussion shifts to consider in what manner it is

³⁹Like Matilal, the other two significant studies of this portion of Udayana’s text, by Siderits (1991: 131–147) and Chakrabarti (1997: 211–245), both neglect any discussion of dialectical register.
possible to have any coherent cognition (even without predication) of non-entities. This will be our topic in section 6.

5 Positive and Negative Predications

5.1 Expression and Cognition

Udayana opens the next section by reiterating the evaluative standard for the debate (namely, the avoidance of self-contradiction), and then immediately accusing the Buddhist of violating that standard:

With regard to accepting a structured usage (vyavahāra), if there were to be the removal of contradiction, then the usage would be accepted. But that is not the case here. Indeed, your statement “it is both unfit for every usage, and it is fit for the usage of its negation” does not have the necessary non-contradiction between its parts.⁴⁰

The key term is vyavahāra, which has a wide range of interconnected meanings, from “practical action” to “verbal convention.” For Udayana (in this context), vyavahāra seems to be something like a proposition, in this sense: it is the structured linguistic utterance which articulates, or (re-)presents, a similarly structured cognitive act. It can also stand figuratively, by metonymy, for the cognitive act itself. Udayana explicitly says that a vyavahāra is the sort of thing which has, or indicates (vyavahriyate), a cognitive object (viṣaya).⁴¹ Śaṅkaramiśra, in commenting on the same passage, states even more directly that the meaning of “not expressed in a vyavahāra” (avyavahṛta) just is “non-cognised” (apratīta).⁴² I will cautiously translate vyavahāra as an “expression,”

⁴⁰ĀTV 177: yadi ca vyavahārasvākāre virodhāparīhāraḥ syāt, asau svākritāpi | na tv evam, na khalu sakalavyavahārābhājanam ca tannīṣedhavyavahārābhājanam ceti | vacanaṃ parasparam avirodhi.
⁴¹ĀTV 179.14–16.
⁴²ĀTV(ŚM) 179.19: avyavahṛtasya | apratītasya arthāḥ.
understood as being intimately connected to a cognitive act. Udayana and his interlocutor can therefore use such expressions as a way of referring to the cognitions themselves.⁴³

This connection with cognitive objects gets to the heart of the dispute between Udayana and the Buddhists. For Udayana, as a good direct realist, the cognitive object (viṣaya) must itself be a real object—in most cases, an external object.⁴⁴ The Buddhist objector, by contrast, would like to defend a view on which cognitions are unmoored from any connection with reality. This is both (1) to postulate cognitive objects (viṣaya) as distinct from the external objects (bāhyārtha) which they present, such that the cogniser possesses a mental representation (ākāra) of the pot which is distinct from the pot itself; and (2) to admit of (at least some) cognitions in which the chain of linguistic usage, expressing a cognition, pointing to a cognitive object, representing an external object, actually stops short of the last step, such that there is no external object at all, and the cognitive object represents no real thing at all.⁴⁵ Udayana disagrees with the first part of the Buddhist position, arguing that the cognitive object and the real (usually) external object must be one and the same. As a result, the second part of the Buddhist position becomes incoherent. If the cognitive object and the real external object are the very same thing, then it is impossible to have one without the other.

5.2 Restricting the Debate to Non-Entities

Udayana charges his opponent with self-contradiction in the very statement of the negative concomitance. The Buddhist must be able to say of something, “This does not exist.” In chapter 5, we encountered the fundamental principle of Buddhist metaphysics, that existence just is the capac-

⁴³As I discuss in section 6 below, the intimate connection between cognition and vyavahāra is taken for granted by Udayana and his opponent throughout the chapter.
⁴⁴The trivial exceptions are cases in which the cogniser is introspecting on himself and his mental life, such that the cognitive object is another cognition, a cognitive faculty, or the like.
⁴⁵Later Buddhists such as Jñānaśrīmitra seem to take the view that, in fact, all of our linguistic usages are like this: “in reality, nothing at all is expressed by words.” See, for instance, the summary verse of his Apohaprakaraṇa (JNA 202.22–203.4), quoted repeatedly throughout that work.
ity for producing causal results. Therefore, to not exist just is to lack the capacity for producing any causal results whatsoever. Given the corollary to this fundamental principle, that one of the minimal capacities most things have to bring about a cognition of themselves, a non-existent thing will be unable even to generate a cognition of itself. And from the tight connection between cognition and linguistic expression (especially the requirement that such expressions have a cognitive object), the Buddhist is committed to the view that any reliable linguistic expression about something non-existent must be impossible. It is to this view that Udayana refers in explaining the first half of the Buddhist’s self-contradiction, that “it is unfit for all linguistic usage.” “X does not exist,” which amounts precisely to the denial of all causal capacity, just is the assertion that X is unfit for any meaningful expression. And that very assertion, in turn, is the second half of the self-contradiction. It seems that the Buddhist is in fact making a meaningful utterance about X, namely: “X is non-existent.”

This is not a deeply nuanced argument, nor does it need to be. The objector is committed to a paradox. The Buddhist philosopher Ratnakīrti is well aware of the argument (though, as ever, he does not attribute it to Udayana by name). His solution is to posit three different kinds of predicates: properties which belong only to real entities (vastudharma), properties which belong only to unreal non-entities (avastudharma), and properties which are common to both entities and non-entities (ubhayasādharana dharma).⁴⁶ To make a general denial of the first sort (real properties) as belonging to non-entities, Ratnakīrti claims, is perfectly acceptable, while the cor-

⁴⁶In her translation of the passage from Ratnakīrti, McDermott (1969: 38–39) takes the three terms as karmadhāraya compounds (“real attribute,” “unreal attribute,” etc.), as opposed to my reading as sāṣṭhī tatpuruṣa compounds (“property of a real entity,” etc.).

A distinction similar to Ratnakīrti’s is made centuries earlier by Dharmakīrti, who phrases it in terms of positive beings and absences (bhāva, abhāva), rather than in terms of entities and non-entities (vastu, avastu). Dharmakīrti’s discussion, which is about classifying universals (sāmānya), is not so distant as it might initially appear from Ratnakīrti’s classification of predicables/properties (dharma). For Dharmakīrti, to produce an (inevitability erroneous) conceptual cognition just is to predicate a universal of an utterly unique particular; so, in classifying universals, Dharmakīrti is eo ipso classifying predicables.

Dharmakīrti’s three-fold division is given in PV 3.51cd (sāmānyam trividham tac ca bhāvabhāvobhayāsrayāt), and discussed by Hugon (2011: 373–375).
responding general denial of either of the last two varieties is unacceptable. His justification for this three-fold distinction is merely that without it, he would face the undesirable consequence of being unable to state his own thesis.⁴⁷

Udayana and Ratnakīrti would therefore agree to the premise that if there is no distinction between varieties of real and unreal predication, then the Buddhist cannot coherently state his thesis. Ratnakīrti, without any additional argumentation, simply denies the consequent and concludes that there must be a distinction. Udayana, meanwhile, refutes various attempts to draw such a distinction in any principled way, thus affirming the antecedent. One man’s modus ponens is another man’s modus tollens.

Udayana begins by establishing that only non-entities could possibly be the subjects of these special, privileged predications.⁴⁸ This is the same scope restriction which Ratnakīrti makes, and it meets with no opposition from the opponent in the ĀTV. The difficulty for the Buddhist will be in providing a principled way of distinguishing a group of negative predicates which can be coherently assigned to these non-entities.

5.3 A Principled Distinction?

The objector in the Ātmatattvaviveka responds to the charge of self-contradiction by trying to restrict the first of the two claims, “it is unfit for all linguistic usage,” to mean “merely being unfit for all affirmative (vidhi) linguistic usages,” while admitting of a privileged class of negative usages.⁴⁹ We can identity four main components in the objector’s argument. They are presented serially in the ĀTV, though they all contribute to one relatively unified position.

⁴⁷RNA 86.4: svavacanasyānupanyāsaprasaṅgāt. This anticipates the second move made by the Buddhist opponent in the ĀTV, the claim that certain properties, like “being a speaker,” are uniquely indexed to real entities.
⁴⁸ĀTV 178–79.
⁴⁹ĀTV 178.4. Sakalavyavahārābhājanam in the statement of the first claim should thus be restricted to mean (sakala)vidhiyavahārābhājanam, as Bhagiratha (ĀTV(Bh) 179.3–4) and Narāyana (ĀTV(N) 64) observe in their commentaries.
1. There is an epistemic instrument for the negative predications, but not for the positive predications. (ĀTV 180–183)

2. Certain properties (such as in the positive predication “being a speaker”) can be established to be uniquely indexed to real entities. (ĀTV 185–186)

3. The cognitions and corresponding expressions in question are purely mental constructs (vikalpamātra). (ĀTV 187)

4. The properties which we predicate refer to causal capacities (or varieties of causal agency), while the negation of these properties is non-implicative, not asserting any other property.⁵⁰ (ĀTV 187–190)

There are, in turn, three main conclusions which Udayana draws in the course of his replies. First, with regard to these utterances, the epistemic instruments are not operative. Perception and inference are the only epistemic instruments acknowledged by the Buddhist, and we certainly do not have perceptual (and so, necessarily causal) contact with non-entities. The objector therefore attempts to ground the distinction in the epistemic instruments, by appealing to an inference. In this context, we also get the first specific example. The Buddhist would like to infer that the son of a barren woman lacks the capacity for speech, from the inferential reason of his being insentient. The Buddhist also claims that there is no inferential reason whatsoever which can establish the contrary, that the son of a barren woman is a speaker.⁵¹ Later in the text, the objector will offer a second inference, in support of the first: The son of a barren woman is not a speaker, because he lacks all causal capacities whatsoever.

⁵⁰This will become more clear in the discussion of Udayana’s final topic, beginning on page 208 below.
⁵¹ĀTV 180.20–181.2. While I will refer to “being a speaker,” “being sentient,” and their negations, Udayana makes clear that capacities, rather than their actualisation, are the proper topic; thus, “having the capacity for speech,” “having the capacity for thought,” and the like. Repeating the longer phrases leads quickly to cumbersome English prose, so I will employ the less precise translations as a useful shorthand.
Udayana should be able to accept the general pervasion relation in the Buddhist’s first inference, that without being sentient one cannot be a speaker. However, the application of that pervasion relation to the case of the son of a barren woman is illegitimate. Udayana quickly provides a reason for the opposite conclusion. The son of a barren woman, we must all agree, has the property of being a son. To deny this is to face contradiction by one’s own words (svavacana-virodha). And being a son entails having the capacities for both thought and speech. Therefore, the Buddhist at best has a pair of counterbalanced pseudo-reasons (satpratipakṣa, H₄), neither of which can be conclusive. So the epistemic instruments are not operating here. The objector is never able to escape the problem of the son of a barren woman’s being a son, to which Udayana returns in concluding this section (ĀTV 189.18ff).

Second, we cannot demonstrate that any special class of properties is uniquely indexed to real entities. Such a demonstration standardly requires two parts: anvaya and vyatireka.⁵³ The former amounts to regular apprehension of the uniquely indexed property “speakerhood” (or, “being a speaker”) together with real entities. This is uncontroversial, as we all routinely encounter real entities which possess the capacity for speech.

Udayana offers two formulations of the latter, vyatireka, both of which amount to the same thing: either “the regular apprehension of non-entities apart from speakerhood,” or “the regular non-apprehension of speakerhood apart from real entities.”⁵⁴ The first formulation cannot be satisfied, since there is no apprehension of non-entities. Nor can the second formulation be satisfied, since properties are never apprehended, in any regular way, apart from the entities which are their property-bearers. If we give up on causal regulators for our cognitions (and their associated linguistic expressions) by positing mere mental constructions, then both the positive and the

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⁵²For the pseudo-reason H₄, see section 2.4 of chapter 4.
⁵³These are the “causal,” or causally correlative, anvaya and vyatireka, and not the inferential anvaya and vyatireka. See the discussion in Cardona (1981).
⁵⁴ĀTV 185: kutah pramāṇat siddhah | kim vaktṛtvaviviktasyāvastuno niyamenopalambhāt | āhosvid vastuviviktasya vaktṛtvasyānupalambhāditi.
negative predicates—speakerhood and nonspeakerhood—will be equally well grounded, in virtue of their being equally arbitrary.

These considerations about non-apprehension lead directly into Udayana’s third and final topic, considering the nature of the Buddhist’s special negative usages. We start by assuming that the negative particles in terms such as “non-speaker” express an implicative negation. On this reading, if to be a speaker is to have causal agency with regard to speech, then to be a non-speaker is to have causal agency with regard to something other than speech. The objector’s response is to treat “non-speaker” as a non-implicative negation, the mere denial of agency. In this way, he hopes to have predicated nothing at all of the non-entity in question.

Two problems with this approach are immediately apparent. First, we might wonder whether the objector has actually said anything at all with sentences like “The son of a barren woman is a non-speaker,” or “He is devoid of all causal capacity.” Because the predication lacks any substantive content, there will be nothing to evaluate, and nothing to distinguish various non-implicative negative predications from each other. Such considerations seem to be informing the discussion throughout, and will become especially important in the next section (ĀTV 192ff), where Udayana considers the impossibility of even thinking about the non-entities themselves.

In the meantime, Udayana focuses on a second problem. Without a foundation in the epistemic instruments, the Buddhist is trapped in circular reasoning. He can justify the property “being devoid of all causal capacity” only by the property “being a non-entity,” and vice versa.

Udayana brings the section to a close by offering a general conclusion, the scope of which he quickly restricts. First, he writes:

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55 For implicative and non-implicative negation, see section 3.3 of chapter 3, as well as the beginning of section 4 in that same chapter.

56 The exchange at ĀTV 187 explicitly deals with interpreting these predicates in terms of agency, and it is here that Bhagiratha, in his commentary, introduces the terms implicative and non-implicative negation. Yet this seems to be what the objector intended all along, for instance in his discussion of the “mere exclusion” of various properties and capacities in ĀTV 181–183. Udayana brings the issue to the foreground at the end of his refutation, as the final decisive blow to the Buddhist’s account.
Therefore, the epistemic instruments alone are the limit of the regularity (*niyama*) of conventional usage, and in the absence of the epistemic instruments, there is only irregularity (*aniyama*).⁵⁷

Taken alone, this seems to state a very general principle: Our linguistic expressions are regular (i.e., rule-governed) only if they are rooted in the epistemic instruments. A cognition which is reliably indexed to its object—however that comes about—is said to be regular (*niyama*). Regularity is defined by this reliable indexing, while the explanation for why certain cognitions are regular will appeal to the causal history of those cognitions.

The scope restriction comes in the passage which immediately follows, where Udayana considers our inability to make predications with regard to unknown entities:

“Indeed, when Devadatta, etc., is not cognized, we do not ask the question "Is he white or black?" without impropriety. And if one person, who is considering an unknown cognitive object,⁵⁸ gives the answer “white,” why should not another person give the answer “black”? When this is so, there is no established meaning/object (*artha*), since both answers are equally opposed in the absence of any epistemic instrument.⁵⁹

### 6 A Third Way?

The foregoing arguments have taken for granted two as yet unargued-for principles: a tight connection between meaningful linguistic usage (*vyavahāra*) and cognition, and another tight connection between cognition and a causally efficacious (which is to say, real) object. The former

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⁵⁷ĀTV 190: *tasmat pramāṇam eva simā vyavahāraniyamasya tadatikrame tv aniyama eveti.*

⁵⁸Raghunātha’s gloss (ĀTV(R) 192.6) makes clear that *apraitiparāmarṣavisya* is an agentive *tatpurusa*, meaning “the cogniser of an unknown cognitive object.”

⁵⁹ĀTV 191.7-11: *ni hy apratīte devadattādau sa kim gaurah krṣṇo veti vaiyātyam vinā prāśnaḥ | tatrāpi yady eko pratītiparāmarṣavisya evottaram dadāti na gaura iti aparō ’pi kim na dādyāt [na] krṣṇa iti | na caivaṃ sati kācīdārthasiddhīḥ pramāṇabhāvavirodhayor ubhayātrāpi tulyatvād iti.*
principle is never in dispute between Udayana and his opponent. The latter becomes the final topic of controversy in the Vyatireka Section.

The objector opens this final section by conceding the general principle that “in regard to an object which is not cognised, there can be no appropriate linguistic usage,” but argues that unreal entities like the hare’s horn are in fact cognised. Purely mental concepts (*vikalpa*), he claims, can be presented even when there is not some distinct external object (*artha*).⁶⁰

The objector’s claim, then, is the following: There are (reliable) cognitions which are not founded in the epistemic instruments. This must be distinguished from the weaker claim, that there are cognitions which are themselves not directly generated by any of the epistemic instruments. Udayana can gladly agree to this weaker claim, since he acknowledges a great variety of such cognitions: recollection, doubting awarenesses, hypothetical reasoning, and doubt.⁶¹ While such cognitions lack the virtue of being produced by an epistemic instrument, they are nonetheless part of our cognitive life. For the weaker claim to be true, there must be cognitions whose most immediate, preeminent causal instrument (*karaṇa*) is something other than one of the epistemic instruments (*pramāṇa*). But in evaluating the stronger claim, by contrast, we must consider all of the causes while are collectively responsible for a cognition, and not merely the preeminent causal instrument. For the stronger claim to be true, there must be cognitions which do not depend upon the epistemic instruments in any way whatsoever.

Udayana denies the stronger claim, holding instead that even our erroneous cognitions are ultimately grounded in the epistemic instruments. On his account, when we cognise something which is not actually present or does not actually exist (say, horns on the head of a rabbit), or misidentify one thing as another (for example, taking mother-of-pearl to be silver), the erroneous cognition is built out of several components, each of which really exists somewhere in the world.

⁶⁰ĀTV 192.7–9: *nany apratīte vyavahārābhāva iti yuktam kūrmāromādayas tu pratiyanta eva | na hy ete vikalpāḥ kiñcidarthhabhedam anullikhanta eva utpadyante | na ca pramāṇāspadam eva vyavahārāspadam iti.*

⁶¹See section 2 of chapter 2.
and each of which has been made available to us by some antecedent knowing event (pramāṇa).⁶²
So while the preeminent causal factor in erroneous cognition is not an epistemic instrument, prior operation of the epistemic instruments is necessary for the production of such a cognition, and so that cognition is still said to be grounded in the epistemic instruments (prāmāṇika). In order to prove his stronger claim, then, the Buddhist must provide a case in which even this minimal grounding in the epistemic instruments is not required. The imagined cognition must be generated entirely by mental factors, with no input from the instruments of knowledge.

Udayana responds to the Buddhist’s strong claim, that there are reliable cognitions of non-entities which are not grounded in the epistemic instruments, in two ways. First, he argues that the Buddhist’s account of error, which underwrites the strong claim, is incorrect (ĀTV 192–206). In sections 6.1 and 6.2, I will examine the various accounts of error under consideration, and the arguments Udayana makes to decide between them. Second, setting aside the first response, he argues that even if the strong claim were true, the Buddhist would still be unable to establish the negative concomitance in the inference from existence (ĀTV 207–220). I consider this second response in section 6.3.

6.1 Accounting for Error

Udayana offers two reasons for rejecting the Buddhist’s theory of error. First, there would be no cause for cognitions of the sort that the Buddhist postulates. Second, we would face the undesirable consequence that such cognitions (of the hare’s horn, and the like) would be useful for interpersonal communication and the attainment of practical ends, despite their being disconnected from the world of real, causally efficacious things.⁶³ In arguing for the former reason, Udayana’s primary example throughout this section. The misapprehension of mother-of-pearl as silver, which is quite popular in the Indian philosophical literature, is not mentioned by Udayana in the first chapter of the ĀTV, though his commentator Bhagiratha does introduce it in explicating this section (cf. ĀTV(Bh) 207–208).

⁶³The summary of the argument comes at the end (ĀTV 206).
the most Udayana can do is to consider in turn each of the major possibilities for what such a cause could be. The second reason is independent of the first, and directly provides a reason for rejecting the Buddhist’s account of error.

The section opens when Udayana presents two alternative accounts of erroneous cognition, asking

Should the cognition “hare’s horn” be the mention of what is otherwise, or the mention of what does not exist?⁶⁴

The first option is the view of Udayana’s own Nyāya school, according to which such an erroneous cognition has the form of “a mention of what is otherwise” (anyathākhyāti). On this view, the cognition arises through a series of four steps. As ever for the Naiyāyikas, the perceptual case is the paradigm; appropriate modifications to the account can easily be made for cognitions related to the other epistemic instruments. I will present the four steps, along with two examples: one for simple misapprehension, where a cogniser mistakes mother-of-pearl for silver, and one for the case of a composite cognition, where a cogniser takes there to be a horn on the head of a rabbit.⁶⁵

1. First, there is an initial connection between the sense-organ and the object.

2. This is followed by the apprehension of the object in its generic nature. That is, the cogniser apprehends only the features which would be common to the erroneous cognition, and the related genuine perceptual cognition. In the first example, these features would include the shape and reflective lustre of the object. In the second example, these would include the body of the rabbit, along with two “somethings” sticking up on its head (which are in fact the animal’s ears, but which will later be mistaken for horns).

⁶⁴ĀTV 192.10–11: śaśaviṣāṇam iti jñānam anyathākhyātir vā syāt, asatkhyātir vā.
⁶⁵My exposition of these steps closely follows that of Rao (1998: 74), who focuses on the former, simple example.
3. This is followed by a recollection of something previously perceived (or known by way of another epistemic instrument). In the first case, the cogniser recalls silver. In the second case, he recalls horns seen elsewhere, perhaps on another animal.

4. Finally, that recollection triggers an “extraordinary perceptual connection” (alaukikasam-nikarsha) with an actual entity existing elsewhere. In the first case, there is extraordinary perception of some silver which exists in another place; in the second case, perception of actual horns which exist elsewhere. The resulting cognition mistakenly connects this actual entity with the object apprehended in step (1).

For the Naiyāyika, then, the silver or the horns which are cognised are merely absent from a certain place, but exist somewhere else. They are not utterly non-existent.

Without the antecedent awareness of silver, or of horns, there will be nothing for the cogniser to remember in step (3), and the erroneous cognition will not be able to arise. The object of the final cognition is not completely imagined, but is a real thing cognised in a way other than how it actually is. Thus, the name of the view. The distant silver is presented as though it were right here (where the mother-of-pearl actually is). The horns are presented as though they are on the rabbit’s head.

The Bhāṭṭa Mīmāṃsa philosophical school advocates for a closely related view, which is mentioned by Udayana in the course of this discussion. This is the account of error as “mention of what is contrary” (viparitakhyāti). The Bhāṭṭa account of error agrees with the first three steps of the Nyāya account presented above, diverging only at step (4). Where the Naiyāyikas posit an extraordinary perception of the erroneous component of the cognition (the silver, in the first example), the Bhāṭṭas claim that only the present locus is perceived, while the erroneous element
(the silver) is supplied directly from memory.\textsuperscript{66} The cognition is erroneous insofar as what is actually a recollection is presented as being a perception.

Still, the advocates of both of these views agree on the need (in step 3) for recollection, ultimately based on some other genuinely pramāṇic awareness, and so they would (and historically were) happy to make common cause against the Buddhists. Owing the close similarity of the two views, the term \textit{viparītakhyāti} is used by some Naiyāyikas, such as Jayanta Bhaṭṭa, to refer to their own view.\textsuperscript{67}

So much, then, for the account(s) of error favored by Udayana.

### 6.2 Refuting the Buddhist’s Theory of Error

Let us return to Udayana’s question, which opened section 6.1 above. The second option, according to which the erroneous cognition is “the mention of what does not exist” (\textit{asatkhyāti}), is the position of the Buddhist opponent, which Udayana must refute. On this view, the cognitive object does not exist anywhere at all, but is instead purely mental. This entails the denial of steps (3) and (4) of the Nyāya and Bhāṭṭa Mīmāṃsa accounts.

Udayana has very little to say in defense of his own account of error. In the present context, he does not need to convince his opponent of every detail of the Nyāya theory. Should the Buddhist be forced to accept any view which involves superimposing one real object upon another—whether that occurs through the Naiyāyikas’ extraordinary perception, the Bhāṭṭas’

\textsuperscript{66}As a group, the Naiyāyikas tend to remain firm in postulating an extraordinary perceptual connection, as theoretically cumbersome as it may seem. The motivation becomes more clear, when we recall that the main classificatory division of cognitions is between awareness (\textit{anubhava/anubhūti}) and recollection (\textit{smṛti}), where the latter may be defined as “cognition produced solely from the traces of prior cognitions” (SS 20.3–4: \textit{smṛtiḥ punaḥ pūrvavijñāna-samskrāmāṁtra janānam ucyate}), while awareness is defined as cognition which is other than recollection (SS 20.3: \textit{anubhūtiḥ sā smṛter anyū}). Given the requirement (in steps 1 and 2 of the process of error) for some operation of the sense organs in regard to a newly presented object, erroneous pseudo-perception clearly fails to meet the definition of recollection, and therefore must operate by another causal process. Contra the Bhāṭṭas, error is not a recollection, though recollection is among its causes.

I discuss this classification of cognitions at greater length in the second chapter of my dissertation.

\textsuperscript{67}Rao 1998: 63.
recollement, or some other method entirely—then the Buddhist has already lost the argument. Such superimposition is directly opposed to the Buddhist’s thesis, that purely mental concepts arise independently of any real object.

As mentioned above, Udayana’s refutation of the Buddhist theory of error has two parts. The first group of arguments, which I will discuss in section 6.2.1, deal with the difficulty in accounting for the cause of erroneous cognitions. The second part of the refutation, which presents the undesirable consequence that erroneous cognitions would be useful for practical dealings, is discussed in section 6.2.2.

6.2.1 A Cause for Erroneous Cognitions?

Udayana refutes the Buddhist account of error as the mention of what does not exist (asatkhyātivāda), by showing that no causal story on offer can explain how such erroneous cognitions are produced in a suitably regular, contentful way. Though his refutation may initially resemble a laundry list, Udayana in fact covers all the major possibilities in a fairly systematic fashion. There are three major alternatives, for what the source of regularity of erroneous cognitions could be:

1. through some operation of the sense-organs or other epistemic instruments
2. through some feature associated with the nature of language
3. through mental factors, known as vāsanās.

Udayana considers each of these in turn.

**Pseudo-Perceptual Awareness**  Udayana begins by ruling out the sense-organs as the cause, since the sense-organs operate only when acted upon by an object. If there is no entity, then there will be no (pseudo-)perceptual awareness.
The Power of Language  The causal capacity of defective verbal communication is likewise constrained by regular patterns of usage. As Udayana notes, if this were not the case, then upon hearing the word “rabbit’s horn,” we could just as well have a cognition of tortoise hair.⁶⁸

To prevent this, and allow for language to be the source of our cognitions of non-entities, there must be some source of regularity (*niyāmaka*), binding certain words to certain objects. Either this source of regularity belongs to the words by their own nature, or else it must be something that human beings give to the words by convention. Dharmakīrti seems to take this latter approach, but in a way that will be unhelpful to his intellectual heirs in the later Buddhist tradition. For him, real things in the world are supposed to be the regulators.⁶⁹ This does nothing to solve the problem of unreal non-entities. For Udayana’s opponent to succeed, we cannot regulate our terms by the simple baptism of pointing out an external object which is part of our shared perceptual experience and giving it a name. And to posit regularity by assigned convention without such baptism is viciously circular.⁷⁰ If we escape the regress by assigning meanings to some limited group of terms by baptism, and allow those conventions to inform other terms which have no baptismal meaning, then we all superimposing one thing on another, which is just the realists’ (Nyāya and Mīmāṃsa) position.⁷¹ If the Buddhist takes the other horn of the dilemma, claiming that words have meaning just by their own nature, then we face the undesirable consequence that cognitions would arise even for someone untutored in language, simply by the innate force of the words.⁷² So much, then, for pseudo-testimony as the cause of cognitions of non-entities.

Purely Mental Factors  The final option available to the Buddhist is to appeal to purely mental factors (*vāsanā*), to account for the generation and regularity of cognitions of non-entities. Such mental factors are standing constituents of a person, responsible (on at least some accounts) for
recollected and abstract/generic awareness. The twentieth-century commentator Kṛśnamādhava Jhā glosses vāsanā with as saṃskāra, the Naiyāyikas’ technical term for the traces of prior cognitions which generate recollection.⁷³

Udayana again presents a dilemma: If the Buddhist takes this route, does this mean that the mental factors alone are the cause of such cognitions, or that mental factors together with some other causes produce the cognition?

The second option is untenable, insofar as Udayana has just refuted the other possible causal factors. The first option also fails, since the Buddhist cannot account for why these traces, which are always present for an individual, produce their cognitions only some of the time. Appeal to other cooperating causes is unhelpful, since this is merely to move to the other horn of the dilemma.

From all of the considerations in this section, we, with Udayana, can conclude that a cognition C with any determine content is explicable only if C is grounded in the epistemic instruments. No other explanation for its cognitive regularity is available. For this reason, the Buddhist cannot have the cognition of non-entities which he needs in order to have knowledge of the momentariness thesis.

6.2.2 Practical Utility

In the paragraph which concludes his refutation of the Buddhist’s account of error as “the mention of what does not exist” (asatkhyāti), Udayana mentions a second consideration against this view, namely, “the undesirable consequence that these mental constructions—‘hare’s horn’ and the like—would be useful for practical dealings, like the dream of a mute.”⁷⁴ The Sanskrit com-

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⁷³ĀTV(Jh) 68.
⁷⁴ĀTV 206–207: mūkasvapnavad āsāṃ vyāvahārikatvaprasaṅgāt. The referent of āsāṃ is clearly saśavisāṇādika-lpanāḥ in the immediately preceding clause (where Udayana states the first consideration).
mentators take this cryptic remark as a bridge between the immediately preceding and following topics in Udayana’s text.⁷⁵

Udayana’s example is well chosen, since a purely mental construction is like the dream of the mute in two significant ways. First, it is only in the cogniser’s head. The Buddhist’s position is that the hare’s horn is something cooked up, as it were, by purely mental factors. A dream is likewise something which by its nature is private, not shared with others. Second, the Buddhist, like the mute, is unable to express to others what it is that he has cognised. Because the mental factors which produce the imagined object are, according to the Buddhist, the unique constituents of some one particular human being, there will be no shared common language within which to express this cognition to someone else such in a way that the listener will cognise the same thing as the speaker. Mental constructions such as “hare’s horn” or “son of a barren woman” are, like the dream of a mute, ineluctably private.

We must be very careful in stating exactly what the Buddhist is committed to. Udayana’s concern is not, in the first place, about the efficacy of the cognition of the hare’s horn in bringing about practical results in the world. Indeed, the Buddhist is relying upon such a cognition to bring about knowledge of universal momentariness, which in turn, according to his soteriological program, will lead his listener a little closer to enlightenment—the most practical, and genuine, of results. This is not to deny altogether the resemblance between the cognition and the dream—it should seem odd that both such cognitions⁷⁶ are useful—but merely to note that the disanalogy between the cognition of a non-entity and the dream of a mute is a consequence which Udayana’s Buddhist opponent is happy to accept. This is not, then, a consequence which is undesirable to the Buddhist, though perhaps it should be.

⁷⁵Udayana’s remark is to be understood by “the maxim of the backward glance of the lion” (simhāvalokananyāya). See, for instance, Jhā (ĀTV(Jh) 73) and Śaṅkaramiśra (ĀTV(ŚM) 207). The prowling lion, while charging forward in pursuit of its next meal, looks back over its shoulder, to see if there is any prey close behind it. The lion, and the remark, are simultaneously directed both forward and backward. (Cf. Apte, Appendix E.)

⁷⁶Dreams, as a variety of recollection, are themselves a species of cognition, at least on Udayana’s Nyāya-Vaiśeṣika model.
Rather, Udayana’s main concern is this: “Hare’s horn,” or whatever other mentally constructed image, is by hypothesis a non-entity, incapable of standing in any causal relations, whether of being caused, or of causing anything else. The Buddhist is therefore committed to a class of cognitions which are not, in any way, caused by what it is that they are cognitions of. That is, the cognitive objects of such cognitions play no role in causing the cognitions themselves. This flies in the face of the most sensible view, on which the differences between various cognitions—say, a pot-cognition and a rabbit-cognition—are causally explained in virtue of their objects: one is a cognition of a pot, the other a cognition of a rabbit. The Buddhist’s position, in the case of the hare’s-horn-cognition, is the equivalent of being unable to appeal to the pot and the rabbit in accounting for each of those cognitions. He is indeed faced with an undesirable consequence.

These concerns over the private nature of purely mental objects will continue to occupy Udayana in the next, and final, section.

### 6.3 The Insufficiency of Imagined Objects

In section 6.2, we saw Udayana’s two arguments against the Buddhist’s theory of erroneous cognition as “the mention of what does not exist.” In the final portion of ĀTV I.1, Udayana sets those arguments aside, to argue that even if the Buddhist’s account of error were accepted, he would still be unable to establish the negative concomitance in the inference from existence.

This concluding section begins with a brief exchange (ĀTV 208–212) directed not against the Buddhist, but rather, against a member of the Prābhākara school of Mīmāṃsā philosophy. This deals with the question of whether “difference from X” should be understood as an absence which is possessed by some locus (i.e., the bare floor possesses the absence of a pot) or as merely the nature of the present entity itself (i.e., the absence of a pot is nothing over and above the bare
floor itself). Udayana offers a few brief considerations in favor of the former view, which are accepted, at least for the sake of the present argument, by the Buddhist opponent.

The Buddhist reenters the conversation at ĀTV 213, with a brief allusion to his theory of conceptual construction. The upshot for Udayana is that for any object x, the absence of x is grounded in the epistemic instruments only if x itself is grounded in the epistemic instruments. Likewise, the difference of x from y—which is nothing more than a mutual absence—is grounded in the epistemic instruments only if both x and y are grounded in the epistemic instruments. When x and y themselves are not so grounded, then the absence of the one in the other is likewise ungrounded.

Finally, at ĀTV 218, the Buddhist offers his last desperate attempt to save the inference from existence: we might let a purely imagined thing constitute part of the inference. To deflect the obvious worry, that there will be no limits on where we might cognise a purely imaginary object, the Buddhist suggests that we distinguish two varieties of inferential site, similarity class, and dissimilarity class: those which are real entities (vastu) known by the epistemic instruments, and those which are non-entities (avastu) which are cognised only by mental construction. In the former cases, the satisfaction of the triple conditions on the inference must likewise be known via the epistemic instruments, while in the latter cases, the triple conditions are known merely on the basis of conceptual construction.

Udayana presents two objections to this proposal. First, as established earlier in the chapter, such merely constructed cognitions lack a regulator (niyāmaka) to ensure that they will direct the cogniser toward advantageous things, and away from disadvantageous things. As ever, the standard for speech or cognition is its usefulness for engaging in practical action to bring about a desired end. In the case of cognitions based solely upon constructed concepts, we have no reason to expect them to do anything of the kind.

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77 See section 2.1 above.
78 ĀTV 215.
Second, such an account will make the inferential process worthless, insofar as counterexamples can always be generated. Recalling the stock example involving the pervasion of smoke by fire, Udayana invites his opponent to consider the mental construction “the hare’s horn, which is devoid of fire, possesses smoke.” Still, everyone involved (including the Buddhist) is committed to being able to infer fire from smoke, imaginary counterexamples notwithstanding. The best the Buddhist can do is to say that the imaginary smoke is “sometimes a real (vastu) thing,” but sometimes not a real thing. Could he avoid Udayana’s worry, simply by making this one of the latter cases? Possibly, but only if he could provide a principled way of distinguishing the imaginary smoke which is a real entity from the other imaginary smoke which is a non-entity. Udayana concludes:

Then being devoid of smoke, too, is sometimes a real entity [and sometimes not], and so there is opposition to the inference even by it. Therefore, just as an imaginary disadvantageous thing does not (on your account) become a fault, so too, an imaginary advantageous thing does not become a virtue.

And thus, there is the refutation of negative concomitance.⁷⁹

7 Conclusion

Taken together, Udayana’s arguments in this chapter have accomplished their purpose, in undermining any epistemic certainty his opponent may have taken himself to have, with regard to the negative concomitance in the momentariness thesis. As we saw in section 4, Udayana’s goal here is only refutation, and not yet the establishing of the contrary thesis. This clears the way for Udayana to present his own inference for persistence, later in the ĀTV. Predications about non-entities must be self-undermining. The arguments of section 5 rule out any attempt at

⁷⁹ĀTV 220.
distinguishing a privileged class of negative predications which might avoid the charge of self-refutation. And the arguments of section 6 show that we cannot even think coherently about the sorts of non-entities involved in the statement of negative concomitance in the Buddhist’s inference from existence for universal momentariness.
Chapter 8

Conclusion

In conclusion, I will simply point to three main themes that have emerged in the course of this study.

First, we see the importance of breaking away from static models in studying the history of Indian philosophy—a move which, thankfully, is already well underway in recent scholarship. This means, as I have done here, not simply discussing “the Buddhist view” of inference, but instead pointing to the radical changes brought about by Dharmottara in transforming the work of Dharmakīrti, with regard to the formulation of the triple conditions and the role of the pseudo-reasons (*hetvābhāsa*). It includes seeing how Dharmottara’s theory is adopted, and occasionally misunderstood, by Mokṣākaragupta several centuries later. Likewise, we distinguish the inferential theories of various Naiyāyikas from each other, and further distinguish these from the Buddhists’. Such a method makes visible the commonalities between various philosophers’ works, while also presenting a vibrant and dynamic history of philosophy in classical India.

Second, we see the importance of respecting the conceptual systems and modes of enquiry used by the classical Indian thinkers. This theme has appeared throughout the present work, including:
1. the warnings against being misled by “belief;”

2. the appropriate framing of the momentariness inference;

3. the understanding of reasoning by prasaṅga and its contraposition, relative to the various accounts of inference, hypothetical reasoning, and epistemic processes in general; and

4. the use of the theory of hypothetical reasoning (tarka) both to structure Udayana’s text, and to articulate and circumscribe Udayana’s goals at each point in the ĀTV.

I hope to have shown that thinking like a Naiyāyika, or like an Indian Buddhist epistemologist, is fruitful for making sense of complex texts, as I have begun to do with the ĀTV.

Finally, we see the systematicity of Udayana and his fellow Indian philosophers. They take themselves, quite self-consciously, to have the obligation to produce a complete, coherent body of knowledge and practice. In the present work, this becomes apparent in the integration of the theory of reasoning with its application in the ĀTV, and in the connection of what is thinkable and knowable to the account of causality and basic ontology.

All of this becomes most clear, once we can think ourselves into the tradition, learning to reason like a Naiyāyika.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ĀTV</td>
<td>Ātmatattvaviveka (Udayana) in Dvivedin and Dravida 1939.</td>
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<tr>
<td>ĀTV(Bh)</td>
<td>Bhagiratha’s commentary on the Ātmatattvaviveka, in Dvivedin and Dravida 1939.</td>
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<td>ĀTV(Jh)</td>
<td>Kṛṣṇamādhava Jhā’s commentary on the Ātmatattvaviveka, in Dāśa 2010.</td>
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<td>ĀTV(N)</td>
<td>Narāyana’s commentary on the Ātmatattvaviveka, in Sastri 1940.</td>
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<td>ĀTV(R)</td>
<td>Raghunātha’s commentary on the Ātmatattvaviveka, in Dvivedin and Dravida 1939.</td>
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<tr>
<td>ĀTV(ŚM)</td>
<td>Śaṅkaramiśra’s commentary on the Ātmatattvaviveka, in Dvivedin and Dravida 1939.</td>
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<td>HB</td>
<td>Hetubindu (Dharmakīrti) in Steinkellner 1971.</td>
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<tr>
<td>KĀ</td>
<td>Kiraṇāvalī (Udayana) in Jetly 1971.</td>
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<td>KTBh</td>
<td>Tarkabhāṣā (Keśava Miśra) in Paranjape 2005.</td>
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<td>SS</td>
<td>Sārasamgraha (Varadarāja)</td>
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Bibliography


BIBLIOGRAPHY


